

ABSTRACT

Title of dissertation: AGING AFRICAN-AMERICAN WOMEN AND THE
IMPACT OF POSITIVE PSYCHOLOGICAL FACTORS
ON QUALITY OF LIFE

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Aging African-American women are disproportionately affected by negative health outcomes and mortality. Life stress has strong associations with these health outcomes. The purpose of this research was to understand how aging African American women manage stress. Specifically, the effects of coping, optimism, resilience, and religiousness as it relates to quality of life were examined.

This cross-sectional exploratory study used a self-administered questionnaire and examined quality of life in 182 African-American women who were 65 years of age or older living in senior residential centers in Baltimore using convenience sampling. The age range for these women was 65 to 94 years with a mean of 71.8 years ($SD = 5.6$). The majority (53.1%) of participants completed high school, with 23 percent ($N = 42$) obtaining college degrees and 19 percent ($N = 35$) holding advanced degrees. Nearly 58 percent of participants were widowed and 81 percent were retired. In addition to demographics, the questionnaire included the following reliable and valid survey instruments: The Brief Cope Scale (Carver, Scheier, & Weintraub, 1989), Optimism

Questionnaire (Scheier, Carver, & Bridges, 1994), Resilience Survey (Wagnild & Young, 1987), Religiousness Assessment (Koenig, 1997), and Quality of Life Questionnaire (Cummins, 1996).

Results revealed that the positive psychological factors examined were positively associated with and significant predictors of quality of life. The bivariate correlations indicated that of the six coping dimensions measured in this study, planning ($r=.68$) was the most positively associated with quality of life. Optimism ($r=.33$), resilience ($r=.48$), and religiousness ($r=.30$) were also significantly correlated with quality of life. In the linear regression model, again the coping dimension of planning was the best predictor of quality of life ($\beta = .75, p < .001$). Optimism ($\beta = .31, p < .001$), resilience ($\beta = .34, p < .001$) and religiousness ($\beta = .17, p < .01$) were also significant predictors of quality of life. It appears as if positive psychology plays an important role in improving quality of life among aging African-American women.

AGING AFRICAN-AMERICAN WOMEN AND THE IMPACT OF POSITIVE
PSYCHOLOGICAL FACTORS ON QUALITY OF LIFE

by

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DEDICATION

This dissertation is dedicated to my grandmothers, Carrie Parker and Anna Harris for their inspiration; and to my father and mother, Leslie and Gwendolyn Parker for their unconditional love.

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LIST OF ABBREVIATIONS

ADL	Activities of Daily Living
AOA	Administration on Aging
CAM	Complementary and Alternative Medicine
DHHS	Department of Health and Human Services
DRI	Duke Religion Index
LOT	Life Orientation Test
NCCAM	National Center for Complementary and Alternative Medicine
NCHS	National Center for Health Statistics
NIH	National Institutes of Health
QOL	Quality of Life
RS	Resilience Scale
SSI	Supplementary Security Income
WHO	World Health Organization
W.I.S.D.O.M.	<i>Women In Stress and the Demands On Maturation</i>

CHAPTER ONE: INTRODUCTION

Overview

All world regions are experiencing an increase in the absolute and relative size of their older populations and the same is true in the United States. In 1900, people over age 65 accounted for approximately four percent of the United States population – less than one in twenty-five. Today, nearly 100 years later, this segment of our population has grown to 35 million, or 12.4 percent (U.S. Administration on Aging, 2002). Today, ethnic minorities comprise over 16 percent of the population over 65 with eight percent African Americans (Administration on Aging, 2003). Although older African Americans are a relatively small percentage of the total African American population, adults over age 65 form the fastest-growing segment of this group as well. The greatest proportion (nearly 60 percent) is the young-old (65-74 years old), although as with other groups, the oldest-old (85 years old and older) is the fastest growing segment of African American elders (NIH, 2000).

By most measures, the physical health of African American adults is worse than that of their white counterparts, a continuation of health related problems from middle age and an outcome of the cumulative effects of poverty, racism, and genetics (Keith & Schafer, 1991). Being black, poor, or both is a powerful predictor of higher rates of disability, illness, and mortality (Burton & Whitfield, 2003). The prevalence of chronic diseases is estimated to be twice as high among African Americans as among whites, and the former more often perceive themselves as being in poor health than do their white counterparts (Ferraro & Farmer, 1996).

African-American women are not immune from these effects. Historically, it has been found that the specific health problems of women have been given less serious attention in the areas of research and treatment than the problems of men and this is also true for women of color. A history of institutional inequities, prejudice, discrimination, and poverty seem to result in greater social stressors and all interact to generate a daily diet of stressors that bear on health status.

The daily stresses and strains that affect the health of older adults have only recently come into focus. One of the more current findings has been that there is evidence linking stress and the body's ability to fight disease (Zautra, 2003). Coping styles, optimism, resilience, and religiousness are four positive psychological factors used to manage stress. Management of stress plays a critical role in the lives of aged persons and affects quality of life and health status. The aim of this research was to determine how these four positive psychological factors impact the quality of life of aging African-American women.

Statement of the Problem

There is a general tendency in the United States to view African Americans in simplistic and undifferentiated ways, assuming a large degree of homogeneity in values, motives, social and psychological factors, and behaviors (Jaynes & Williams, 1989; Sanders-Thompson, 2002). Although racially based categorical treatment results to some extent in group uniformity of attitudes and behaviors, it has always been true that there exists a rich heterogeneity among blacks (Jackson, 1994). Research demonstrates that African Americans span the same spectrum of structural circumstances, psychological statuses and social beliefs as the millions of other Americans of different ethnic and

cultural backgrounds (Jackson, 1994; Stanford, 1990). But a unique history and the nature of their group and individual development and aging experiences all serve to place vast numbers of Americans of African descent in the United States at disproportionate risk for physical, social, and psychological harm. Blacks arrive at older ages with significantly higher frequencies of previous disease and ill health.

In general, African-American women are disproportionately affected by poorer health outcomes, especially aging African-American women. The gerontological literature has viewed old age as a period of life with important changes and transitions for individuals. Events in the areas of family and social relationships, economic lifestyles, and personal health frequently cause significant and irrevocable changes in the lives of older persons. Further, late maturity is a momentous period of life because of the tendency for events to be clustered together. Several occurrences, such as retirement and widowhood (Lopata, 1973), often coincide with declines in health and income. These events, and the concomitant stress they engender, are of interest to social and health scientists. Specifically, researchers have been interested in how older individuals respond to these events and whether the physical changes associated with aging constitute important risk factors for impaired coping and adaptation.

These questions are particularly relevant for the aging African-American female population. Large segments of the older black population encounter significant and indisputable disadvantage with regard to socioeconomic status and health. Despite this, older black adults are often described as being survivors and possessing effective coping strategies to deal with life's adversities. Research has examined the existence and operation of supportive networks within families (Martin & Martin, 1978; Taylor, 1988),

communities (Greider & Krannich, 1985), and churches (Taylor & Chatters, 1986) (**), and their role in bolstering the coping capabilities of older black adults. However, there has been little work examining the nature and extent of the four positive psychological factors of coping, optimism, resilience, and religiousness collectively and their impact on aging African-American women (Chatters & Taylor, 1990).

Purpose of the Study

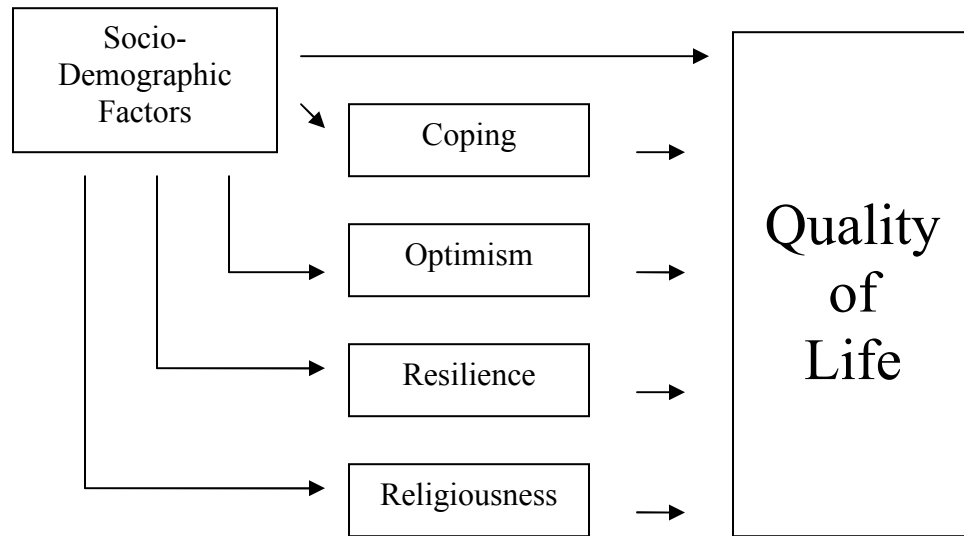
The purpose of this research was to examine the interrelationships among social demographic variables, positive psychological factors and quality of life measures. Of particular interest was the combination of the four positive psychological factors mentioned previously as predictive variables of quality of life and thus the potential for improved health outcomes older among older African-American women. The central question the analysis addressed was: What is the effect of coping, optimism, resilience, and religiousness on quality of life among African-American women who are 65 years of age and older?

Experimental Model

This research focused only on evaluating four positive psychological variables – coping, optimism, resilience, and religiousness – and their association with quality of life among African-American women who were 65 years of age and older (Figure 1-1). Socio-demographic factors were also considered to determine what affect they may have on the strength of the relationship between the independent and dependent variables. There were three research questions of interest. Specifically, what effect does coping, optimism, resilience, and religiousness have on quality of life in aging African American women? Which socio-demographic factors are associated with the positive psychological

factors measured in aging African American women? How well do the positive psychological factors predict quality of life?

Figure 1-1 The Experimental Model



Moderating Variables (Socio-Demographic Factors)	Independent Variables (Positive Psychological Factors)	Dependent Variable
<ul style="list-style-type: none"> • Education • Marital Status • Employment Status 	<ul style="list-style-type: none"> • Coping • Optimism • Resilience • Religiousness 	<ul style="list-style-type: none"> • Quality of Life

Variations in health status and disability are observed for identified subgroups of the elderly population. Age differences in health demonstrate that increasing age is associated with poorer health and higher levels of disability (Verbrugge, 1983; Guralinik, Salive, & Fried, 1996; Carlson, et al., 1999). In contrast, previous work suggested that

older adults were less likely than younger persons to describe life events and transitions as being stressful (House & Robbins, 1981; Anson, Carmel, Levenson, Bonneh, & Maoz, 1993). Gender differences in health status and disability indicate that women display poorer health and greater levels of disability than do men (Verbrugge, 1983; Costa, 2000). Research indicates that women possess a heightened sensitivity to health-related concerns and engage in a variety of health behaviors at higher rates than men (i.e., preventive health measures, utilization of resources). Women appeared more likely than men to report symptoms and discomfort and to engage in recuperative episodes (Verbrugge, 1985; La Croix, Newton, Leveille, & Wallace, 1997). Similarly, women reported higher levels of psychological distress than did men (Jackson, Chatters, & Neighbors, 1982; Kessler, 1979; Denton & Walters, 1999).

Marital status differences in health demonstrated that married respondents evidence better physical (Nathanson, 1975; Buunk & Gibbions, 1997) and mental (Gove, Hughes, & Style, 1983; Matthews & Hughes, 2001) health than do unmarried persons (i.e., widowed, divorced, separated, and never married). Socioeconomic factors generally bore a positive relationship to physical and mental health among older groups (Cantor & Mayer, 1974; Ferraro, 1980; Jackson, Chatters, & Neighbors, 1982; Kent & Hirsch, 1972; Nagi & King, 1976; Neighbors, 1986; Paringer, Bluck, Feder, & Holahan, 1979; Levi & Pelligrin-Rescia, 1997; Mackenbach, 1992; Melzer, McWilliams, Brayne, Johnson, & Bond, 2000) – meaning an increase in socioeconomic status was associated with improved health outcomes. Limitations on activity due to chronic health conditions were inversely related to family income among older people (National Center for Health Statistics, 2003) – meaning as incomes increased, limitations on activity would decrease.

Similarly, educational differences in health disability indicated that years of education were inversely related to disability (Institute of Medicine, 2002); as education increased, disability decreased. In this study the effects of four positive psychological factors – coping, optimism, resilience, and religiousness – were explicitly tested to determine if they were predictors of quality of life among aging African American women.

Statement of Research Hypotheses

Hypothesis 1a. Coping will be positively correlated with quality of life.

Hypothesis 1b. Optimism will be positively correlated with quality of life.

Hypothesis 1c. Resilience will be positively correlated with quality of life.

Hypothesis 1d. Religiousness will be positively correlated with quality of life.

Hypothesis 2a. Socio-demographic factors will be positively correlated with coping.

Specifically,

- (1) Those with higher levels of education will have better coping skills.
- (2) Those who are married will have better coping skills.
- (3) Those who are employed will have better coping skills.

Hypothesis 2b. Socio-demographic factors will be positively correlated with optimism.

Specifically,

- (1) Those with higher levels of education will be more optimistic.
- (2) Those who are married will be more optimistic.
- (3) Those who are employed will be more optimistic.

Hypothesis 2c. Socio-demographic factors will be positively correlated with resilience.

Specifically,

- (1) Those with higher levels of education will be more resilient.
- (2) Those who are married will be more resilient.
- (3) Those who are employed will be more resilient.

Hypothesis 2d. Socio-demographic factors will be positively correlated with religiousness. Specifically,

- (1) Those with lower levels of education will be more religious.
- (2) Those who are married will be more religious.
- (3) Those who are retired will be more religious.

Hypothesis 3: All four positive psychological factors will be predictors of quality of life.

Definitions of Terms

Following is a list of terms and variables used in the study. Also provided are their definitions.

Activities of Daily Living (ADL)

Activities of daily living summarize an individual's performance in personal care tasks such as bathing or dressing, as well as such home-management activities as shopping, meal preparation, and taking medications (NCHS, 1999).

Aging

Aging in general refers to changes that take place in the organism throughout the life span. These changes include the good, the bad, and the neutral. Younger stages are

referred to as development or maturation, because the individual develops and matures, both socially and physically, from birth through adolescence. After age thirty (30), additional changes occur that reflect normal declines in all organ systems. Senescence happens gradually throughout the body, ultimately reducing the viability of different bodily systems and increasing their vulnerability to disease. This is the final stage in the development of an organism (International Longevity Center, 1999).

African American

Someone who is an African American is a person having origins in any of the black racial groups in Africa. Normally excludes persons of Hispanic origin except for tabulations produced by the Census Bureau, which are noted accordingly in this volume (U.S. Census Bureau, 2001).

Chronic condition

A chronic condition is long term (more than three months), often permanent, and leaves a residual disability that may require long-term management or care rather than cure (NCHS, 2003).

Continuity Theory

Continuity Theory is based on the hypothesis that central personality characteristics become more pronounced with age or are retained through life with little change; people are successful if they maintain their preferred roles and adaptation techniques throughout life (Covey, 1981).

Coping

Coping describes a person's constantly changing cognitive and behavioral efforts to manage specific external and or internal demands that are appraised as taxing or

exceeding the person's resources (Lazarus & Folkman, 1984). Coping is a complex response to a stressful or challenging situation that is often defensive in character. First, one evaluates whether one has anything at stake in an encounter. Second, one evaluates existing coping resources and options and assesses the possibilities of control in a situation to determine what can be done to overcome or prevent harm, or improve the prospects for benefit. The first and second evaluations are proposed to converge to determine whether an event is appraised as stressful. An event is appraised as stressful when the appraisal of threat exceed the appraisal of coping abilities (Folkman, 1986).

Cross-sectional research

Cross-sectional research is research that examines or compares characteristics of people at a given point in time and attempts to identify factors associated with contrasting characteristics of different groupings of people (Lomax, 2001).

Disability

It is defined as impairment in the ability to complete multiple daily tasks (WHO, 1998).

Gerontology

Gerontology is a field of study that focuses on understanding the biological, psychological, social, and political factors that influence older people's lives (Birren, 1996).

Health status

It is the presence or absence of disease as well as the degree of disability in an individual's level of functioning (World Health Organization, 1998).

Instrumental Activities of Daily Living (IADL)

These include daily activities involving use of the environment, such as teeth brushing, bed making, and hair combing (National Center for Health Statistics, 1999).

Life expectancy

Life expectancy is the average length of time persons, defined by age, sex, ethnic group, and socioeconomic status in a given society, are expected to live (Hazzard, 2001).

Life Stress

Life stress is the accumulated “wear and tear” of maturation – getting older. It may include psychological, physical, emotional, environmental, and financial stressors.

Old-old

This is a subset of the population that includes persons who are seventy-five (75) to eighty-four (84) years of age (U.S. Census Bureau, 2001).

Oldest-Old

This is a subset of the population that includes persons who are eighty-five (85) years of age and older (U.S. Census Bureau, 2001).

Optimism

Optimism is the tendency to believe that one will generally experience good outcomes in life. Scheier’s (1992) study on optimism, coping, and health revealed that optimism was positively correlated with manifestations of problem-focused coping and negatively with emotion-focused coping, suggesting that optimists perform better because they employ coping strategies that enhance skill based learning such as problem solving.

Positive Psychology

The aim of positive psychology is to catalyze a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life (Seligman & Csikszentmihalyi, 2000). The field of positive psychology at the subjective level is about positive subjective experiences: well-being and satisfaction; flow, joy, the sensual pleasures, and happiness; and constructive cognitions about the future – optimism, hope, and faith. At the individual level it is about positive personal traits – the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, high talent, and wisdom (Seligman & Csikszentmihalyi, 2000).

Quality of Life

Going beyond health status alone, quality of life considers the individual's sense of competence, ability to perform activities of daily living, and satisfaction with social interactions, in addition to functioning health (Merck Institute, 2002).

Religiousness

Religiousness is defined as religious activities including involvement in scripture study, prayer groups or prayer chains, intimacy with God, volunteering time and talents, contributing finances to support church activities, and providing services to comfort those less fortunate in a religious community even when it is inconvenient and involves some degree of personal suffering and sacrifice (Koenig, McCullough, & Larson, 2001).

Resilience

The process of or capacity for successful adaptation in the face of adverse circumstances normally associated with psychological dysfunction (Fonagy & Steele, 1994; Rutter, 1985, 1990).

Senior Residential Center

A senior residential center is a place where senior citizens aged 55 years and older live. They select a place of residence within the facility such as an apartment, condominium, or single family home; and have access to meals, activities, transportation, and when needed professional health services.

Social Exchange Theory

Social Exchange Theory is based on the hypothesis that personal status is defined by the balance between people's contributions to society and the costs of supporting that person in society (Hendricks, 1995).

Stress

Stress is defined as the gamut of social-psychological stimuli that produce physiological responses of shallow, rapid breathing, muscle tension, increased blood pressure, and accelerated heart rate (Aldwin, 1994).

Successful aging

Successful aging is defined as the achievement of good physical and functional health, cognitive and emotional well-being in old age, often accompanied by strong social support and productive activity (Rowe & Kahn, 1997).

Young old

This is a subset of the population that includes persons who are sixty-five (65) to seventy-four (74) years of age (U.S. Census Bureau, 2001).

Summary

The purpose of this investigation was to understand coping mechanisms, optimism, resilience, and religiousness among African-American women who were 65 years of age and older. These four positive psychological factors were evaluated as predictor variables of quality of life. It was hypothesized that these factors, both independently and collaboratively, would be positively related to quality of life.

In addition, social demographic factors such as education level, employment status, and marital status were considered as a means of determining their impact on the quality of life among this target population. Research has indicated that African-American women experience poorer health outcomes as a result of life's stressors. African-American women have also been characterized as strong, persevering, and supportive. This study of aging African-American women sought to explore the psychological foundations of these characteristics and their predictive value in assessing quality of life. The second chapter provides a review of the literature regarding these concepts and constructs.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The purpose of this literature review was to describe the process of aging, to understand the demands of stress on aging African-Americans, to define the categories of stress, and to examine processes and factors – such as coping strategies, optimism, resilience, and religiousness – which influence how one deals with stressors. The aim was to identify appropriate ways to assess and evaluate the effectiveness of these mechanisms as a way of understanding how this population may achieve optimal health outcomes.

The Aging Population

All world regions are experiencing an increase in the absolute and relative size of their older populations. The number of persons age 65 or older in the world is expected to increase from an estimated 420 million in 2000 to 761 million in 2025 (U.S. Census Bureau, 2001). This will result in a world population in which one out of every seven people will be 65 years of age or older by the year 2025 (U.S. Census Bureau, 2001a.). As seen in the projections for population growth in the United States, the global age distribution will change as a result of a reduction in fertility rates worldwide, even in the less developed countries of Africa and South America. It is estimated that 120 countries will reach total fertility rates below replacement levels (i.e., 2.1 children per woman) by 2025, compared to 22 countries in 1975 and 70 in 2000 (WHO, 2002).

In the United States, the growing size of the older population is also of great importance. In 1900, people over 65 accounted for approximately four percent of the United States population – less than one in twenty-five. Today, nearly 100 years later,

this segment of our population has grown to 12.4 percent (U.S. Administration on Aging, 2002). This number represents a twelve-fold increase in the older population during this period, compared with a threefold increase in the population under age 65. Population growth for this age group declined slightly between 1990 and 2000 because of the low birthrates experienced in the United States during the Great Depression (1929-1935). After 2010, however, as the baby boom generation begins to reach old age, the population over 65 will again increase significantly. Thus, demographers with the Urban Institute and the Census Bureau predict that by 2030 the population aged 65 and older may be as high as 70.3 million, representing a 100 percent increase over 30 years, compared with a 30 percent growth in the total population (National Academy, 1999).

Why have these changes in the older population occurred? It is mainly because people are living longer. In 1900, the average life expectancy at birth in the United States was 47 years. In 2000, the average life expectancy is now much longer. Gender differences are particularly striking. Females born in 2000 can expect to reach age 79.5, and men, age 74.1. Older men can expect to live 16.3 years and women 19.2 years, after 65 (U.S. Census, Bureau, 2001b). About four out of five individuals can now expect to reach age 65, at which point there is a better than 50 percent chance of living past 80.

In addition to the proportional growth of the older population in general, other demographic trends are of interest. These include statistics related to social, ethnic, racial, and gender characteristics of older populations. The next section will review some of these trends beginning with the demographics of ethnic minorities in the United States.

The Ethnic Minority Elderly

Even within the national population of the elderly, it is difficult to make generalizations. There are great differences between the “young-old” (ages 65-74), aging (75-84), and the “old-old” (ages 85 and over). Among minority population studies, definitions of age often differ from the norm. For example, the age of 55, not 65 may be used as the lower boundary for the “young-old” for an aged minority population. It is this “other” classification of “young-old” that may be very different from standard definition of “young-old” (65-74) among minority elders (Task Force on Black and Minority Health, 1985). However, for the purpose of this discussion, ethnic minority elders include older people of color 65 years of age and older belonging to groups whose language and/or physical and cultural characteristics make them visible and identifiable, who have experienced differential and unequal treatment, who share a distinctive history and bonds of attachment among group members, and who regard themselves as objects of collective discrimination and oppression by reason of their race (Angel & Hogan, 1994).

For people of color, race is a social characteristic that shapes an individual’s values, behaviors, and distribution of resources. In fact, race may interact with individual conditions (i.e., functional impairment) and social structural factors (e.g., socioeconomic status) to influence the receipt of help, including the use of formal and informal care (Norgard & Rodgers, 1997). It is not only their ethnic and cultural traditions that influence their socialization process, but also their experience of being a racial minority within a white majority culture.

Accordingly, the aging process and quality of life of elders of color are inevitably affected by the experiences of a lifetime of racial discrimination and disadvantage.

Because of lifelong inequalities in access to health care and preventive health services, elders of color have a lower life expectancy than whites. For example, in 2002, life expectancy at birth was 80.3 years for white females, 75.6 for African American females, 68.8 for African American males, and 75.1 for white males (NCHS, 2003).

Today, ethnic minorities comprise over 16 percent of the population over 65 with 8 percent African American, 5.6 percent Latino, 2.4 percent Asian or Pacific Islander, and less than 1 percent American Indian (Administration on Aging, 2003). In fact, elders of color are predicted to form more than 33 percent of the total older population by 2030 (NIH, 2000). The greatest growth among elders of color will occur in those age 85 and over (AOA, 2003).

Older African Americans

African Americans are a heterogeneous population of individuals with “black” skin ranging in hue from fair-skinned to blue-black. In American society, they represent one of several “visible minorities” who, in some way, are physically different from Northern Europeans. Cultural values of the various African tribal communities that emphasized collectivity, sharing, affiliation, obedience to authority, belief in spirituality, the importance of the past, and respect for the elderly have been transmitted across generations, surviving the disruptions resulting from forced migration to the Americas to become slaves (Gutman, 1976)

Black individuals in the United States today include African Americans, African Caribbeans, and individuals of mixed ethnic heritage that includes Northern European and American Indian components. Thus, the United States black community

encompasses a great diversity of cultures, customs, languages, educational levels, and socioeconomic statuses (Mullings, 1985).

Although African Americans are the second largest population of color in the United States, only about eight percent of them are over 65 years of age, compared to 14 percent of the white population (AOA, 2003). The young outnumber the old, due primarily to the higher fertility of African American women (Whitfield & Baker, 2003). The median age of African Americans (29.5 years) is five years younger than the median age for whites (34.6). The life expectancy for African American men and women is 64.9 and 74 years, respectively, compared with a life expectancy of 74.1 years for white men and 79.5 years for white women (National Women's Health Information Center, 2003). Comparisons of white-black differences in life expectancy need to take into account socioeconomic status, since high-income white males and high-income black males both live longer than their lower-income counterparts (William and Wilson, 2001).

Although older African Americans are a relatively small percentage of the total African American population (10%), adults over age 65 form the fastest-growing segment of that group. While the overall African American population is expected to grow by 45.6 percent by 2020, the proportion of older people generally will likely increase by 90 percent, from eight percent to 15.3 percent in the year 2020, and to 21.3 percent by 2050 (AOA, 2003). The greatest proportion (nearly 60 percent) is the young-old, although as with other groups, the oldest-old is the fastest growing segment of African American elders. The ratio of men to women is slightly lower than among whites, 62 males for every 100 females, compared to 67 among the white population. Oldest-old women are the most rapidly growing group of African American elders, and

they have the longest average remaining life expectancy among African American elders (NIH, 2000).

Health

By most measures, the health of African American adults is worse than that of their white counterparts and an outcome from the cumulative effects of poverty, racism, and genetics. Being either black or poor is a powerful predictor of higher rates of disability, illness, and mortality (Burton & Whitfield, 2003). The socioeconomic disadvantages experienced by African Americans help to explain their lower utilization of health services (Miller, et.al., 1996), their reduced access to health care (Freeman & Payne, 2000), the longer reported delays in obtaining health care due to cost (Lynch, Davey-Smith, Kaplan, & House, 2000), their poorer health status and self-reports of health (Kahn, Pearson, & Harrison, 1994), and the higher rates of mortality (National Center for Health Statistics, 2001).

The prevalence of chronic diseases is estimated to be twice as high among African Americans as among whites, and the former more often perceive themselves as being in poor health than do their white counterparts (Ferraro & Farmer, 1996). African American adults experience hypertension (National Women's Health Information Center, 2003), cancer (Calle, Flanders, Thun, & Martin, 1993), heart disease (Williams & Rucker, 2000), stroke (Otiniano, Du, Ottenbacher, & Markides, 2003), and diabetes (Elasy, et.al, 2000) more frequently than do their white peers. However, these differences are greatest at age 45 and decline with age, especially after age 85 (Freeman & Payne, 2000; NIH, 2000). In addition, they have more undetected diseases such as depression (Matthew & Hughes, 2001). The stresses of constantly struggling to make

ends meet may translate into higher rates of depression, especially among women (Bromberger, Harlow, Avis, Kravitz, & Cordal, 2004). Obesity is a frequent health problem among African American women, which can lead to complications of hypertension and diabetes (Sharp, et.al., 2002). The rate of diabetes mellitus among black women is twice that among white women, and has been described as an epidemic (NIH, 2000).

However, the attention given to this population and more specifically the women of this population has been lacking. Historically, it has been found that the specific health problems of women have been given less serious attention in the areas of research and treatment than the problems of men. Only, recently, (1980s) after pressure was applied, did Congress require inclusion of women in federally funded health research (U.S. DHHS, 1999). The result of the years of neglect has created a serious deficit in knowledge about health problems specific to women. This deficit has compounded health problems distinctive to women of color and their subgroups. This lack of information greatly diminishes the competency of health providers to identify health problems and their related behaviors, impairing their ability to deliver effective care to women of color.

The health of women is viewed through their various roles as caregivers, wives, mothers, grandmothers, family stabilizers, and head of households. African American women, like all women, receive health care in the context of the families in which they perform multiple caregiving roles. These roles influence the formation of their racial identities. It is this formation of identity that provides a basis for the way African American women may perceive and respond to their environment. One way African

American women respond is through caregiving. These caregiving roles often translate into interrupted employment histories and limited access to health insurance, and they place time constraints on women's ability to seek care for themselves. Additionally, dependence on a husband for health insurance coverage leaves the caregiver wife vulnerable if the marriage dissolves or if the employer cuts back on or eliminates dependent coverage (Williams, Dilworth-Anderson, & Goodwin, 2003).

These general problems and characteristics of women as caregivers and consumers of health care services are compounded for African American women by the special circumstances of their lives and the lives of the men about whom they care. A history of institutional inequities, prejudice, discrimination, and poverty seem to result in greater social stressors and all interact to generate a daily diet of stresses that impact their health.

Economic Status

Over three times the proportion of older African Americans live below the poverty line compared to older whites: 26.4 percent versus 8.2 percent, respectively (AOA, 2003). The incidence of poverty increases dramatically among households composed of unrelated black individuals, especially females age 65 and over. The median income of African American males over 65 is approximately 60 percent of white men; that of black women about 66 percent that of white women, with the proportion of older African American female-headed families in poverty increasing in the past 20 years. Poverty rates are highest among women living alone and among the oldest-old,

with the rate of oldest-old black women three times that of oldest-old (85+) white women (Hudson, 2002; Williams & Wilson, 2001).

These inequities are increasing due to general economic conditions. The primary reasons for the lower socioeconomic status of older African Americans are limited access to educational opportunities earlier in the life span; limited employment opportunities and periods of unemployment and underemployment throughout their lives (Williams & Wilson, 2001); greater likelihood of leaving the workforce earlier (Flippen & Tienda, 2002), frequently because of health problems; greater likelihood of depending on Social Security benefits, as their only income source (Hayward, Friedman & Chen, 1996); and greater dependence on public supports such as Supplemental Security Income (SSI) (Hudson, 2002).

Given this pattern, analyses of older African Americans' economic status need to consider not only their income, but also their total net worth, including assets. Compared with whites, blacks not only have lower earnings at equivalent levels of education, but also less wealth at the same levels of income and less purchasing power due to racial differences in residential environments. For example, financial assets of white households are 11 times that of African American households (Williams & Wilson, 2001). Another dramatic difference is African American households on average have only 26 cents of wealth for every dollar in net worth of white households (Williams & Wilson, 2001). As such, this study considered the socioeconomic status variable of economic status and its relationship with the quality of life among the target population of aging African American women.

Educational Level

Differences in education do not explain all the gaps in socioeconomic status. However, educational achievement does moderate the effect of ethnicity on chronic disease and disability, especially among older women. While African American women who have completed zero to eight years of school can expect 18.4 years of unhealthy life, their counterparts with 13 or more years of school can expect 12.9 years (Crimmins and Saito, 2001). Among white women the difference is 17.5 versus 11.8 years of unhealthy life, respectively (Crimmins and Saito, 2001). Differences between more and less educated men are less dramatic. African American men with zero to eight years of education can expect 13.4 years of unhealthy life versus 9.0 for those with 13 or more years of education. Comparable patterns for white men have been reported: 14.1 versus 10.0 years. Thus, education benefits people into old age, especially women, by enhancing their awareness of and access to preventive health services (Crimmins and Saito, 2001). As such, the social demographic variable of education level was investigated in this study to determine its link to quality of life among aging African American women.

Stress and Stressors

The daily stresses and strains that affect the health of older adults have only recently come into focus. Identification of such stressors is becoming a significant part of research pertaining to elders. Management of stress plays a critical role in the lives of aged persons and often affects their quality of life and health status.

The word stress technically refers only to how our body reacts to stressors, different external inputs. Many stressors are not inherently stressful. There are

conscious and unconscious things that determine whether a stressor in the external world will trigger our stress response. They are referred to as mediating responses and moderating factors. Some stress is good stress because it motivates. Some stress is bad causing emotional distress, sleep disturbances, and difficulty concentrating. Scientific studies suggest that up to 85% of all health problems are related to stress (Allison, Locker, & Feine, 1997).

There is no solid agreement regarding the derivation of the term stress. For example, some sources suggest that the term is derived from the Latin word *stringere*, meaning to “bind tightly.” Other sources contend that the term derives from the French word *distress*, and suggest that the prefix “dis” was eventually eliminated because of slurring (Humphey, 1986). In essence, stress can be considered any factor acting internally or externally that makes it difficult for a person to adapt and that induces increased effort on the part of the individual to maintain a state of equilibrium within herself and with her external environment (Humphey, 1986).

Although there are various theories of stress, one of the better known ones is that of Hans Selye. He defines stress as the nonspecific response of the body to any demand made upon it (Selye, 1956). This physiological process and the reaction involved (Selye’s stress model) is known as the General Adaptation Syndrome and consists of three stages: the alarm reaction, resistance stage, and the exhaustive stage. The first stage is the alarm reaction. In this stage the body reacts to the stressor and causes the brain to signal the emission of hormones which influence heart rate, blood pressure, and cause a reduction of body resistance to illness and infection. In the second stage, resistance develops if the stressor is not too pronounced. Body adaptation develops to fight back

the stress or possibly avoid it and begins to repair any damage. The third stage of exhaustion occurs if there is a prolonged exposure to the same stressor. The ability of adaptation is eventually exhausted and the signs of the first stage (alarm reaction) reappear and the process repeats itself. Selye contended that the body's adaptation resources are limited, and when they become irreversible, the result is death (Selye, 1956; Catherall, 2004).

There are various ways in which reactions to stress can be classified. The two most common are physiological and behavioral reactions. Physiological reactions involve the body preparing for the stressor and reacting accordingly. It is generally known as the "flight or fight" response and was described as an emergency reaction by Walter B. Cannon (Cannon, 1932). Behavioral reactions, although physically oriented, involve more overt manifestations than those that are provoked by the physiological reactions. Cannon wanted to know how the body managed such an integrated response involving so many body systems. He found two different but related answers. One lay in the nervous system. Blood vessels, heart, lungs, and liver are all target organs of the autonomic division of the nervous system. It is called autonomic because the reactions it controls seem to occur automatically, without a person's voluntary intentions. The autonomic system has two branches: an interconnected chain of nerves known as the sympathetic branch and a series of nerves grouped together as the parasympathetic. The target organs of the heart, lung, liver, kidneys, adrenal glands, and blood vessel receive nerves from both the sympathetic and the parasympathetic branches of the autonomic nervous system (ANS). Cannon found that the body's emergency reaction (possibly a stressful event) can be created by stimulating the sympathetic nerves. The

parasympathetic nerves create effects that are opposite. For example, heart rate and breathing slow down, the liver stores sugar, blood pressure falls, and blood is diverted from the muscles and brain to the digestive system and the skin. When the activity of the sympathetic branch is predominant, the body's resources are marshaled for emergency action and Cannon concluded that parasympathetic domination restores the body's resources during times of relaxation. Thus physical reactions to a stressful event may result from some sort of defensive, dysfunctional, or expressive stimulation (Birren, 1985). Psychological reactions to stress are also possible and will be discussed at greater length in the next section of discussion.

Stressors have three general categories (catastrophes, major life changes and daily hassles) and several classifications. Catastrophes are sudden, often life-threatening calamities or disasters that may overextend people's coping capabilities. These include natural disasters such as floods and earthquakes. Major life changes include death of a loved one, divorce, imprisonment, job loss, and major disability. Daily hassles include everyday annoyances due to jobs, personal relationships and everyday living circumstances (Catherall, 2004).

Some general classifications of stress include desirable and undesirable stress (Posner & Leitner, 1981), physical stress (Wykle, Kahana, & Kowal, 1992), psychological stress (Mikhail, 1981), and social stress (Morse & Pollack, 1989). According to Humphrey (1992), everything causes stress and stress causes everything. For example, Pelletier (1977) has reported that a tragic consequence is that stress-related psychological and physiological disorder have become the number one social and health problem in the last few years, and further, that most standard medical textbooks attribute

anywhere from 50 to 80 percent of all diseases to stress-related origins. One of the more recent findings is evidence linking stress and the body's ability to fight disease (Zautra, 2003). However, there are a variety of classifications of factors of individual differences with regard to stress. Gender is one of these factors.

Physically, females are smaller in terms of birth size and weight, mature earlier than males, learn earlier than males, and live longer than males. As far as individual differences in stress, it is generally felt that with the women's movement of the 1970's came their increased susceptibility to stress (McQuade, Walter, & Aikan, 1974). In terms of stress reactivity, Humphrey and Everly (1980) conducted a study to investigate the perceptual dimensions of stress reactions in male and female students. The study included random samples of 200 male students and 199 female students. A State Measurement Scale was used for the purpose of finding out from male and female college students how they generally felt while experiencing a stress response situation. The study showed that males and females "perceive" different stress reactions. One interesting finding was the emergence of *gastrointestinal sensitivities* (such as upset stomach) exclusively among males and the emergence of an *aversive affective sensitivity* (such as feeling "high strung") exclusively among females. Investigators found no statistically significant differences in the appearance of a gastrointestinal sensitivity among males and an affective sensitivity among females. However, they did speculate that socio-cultural factors may have been involved. The reason for this is that it may be socially acceptable for males to develop "executive ulcers." Regarding the affective sensitivity, generally speaking, males are taught to repress emotions, and many males perceive emotion as a sign of weakness. Similarly, females have been traditionally taught that it is appropriate

for them to demonstrate emotion. As this era of changing sex roles progresses, and if cultural factors do influence perceptions of responsiveness, then one might be willing to speculate that, eventually, there would be a more homogenous perception of stress reactions among males and females.

As far as gender differences in stress in older adults are concerned, some interesting information is available. For example, in a report by Levy (1981), findings supported the conclusion that adult women across all age categories are more distressed than their male counterparts although the source of this distress may differ for middle-aged and older women cohorts. Underlying disturbances for the middle-aged woman are role loss, lack of marketable skills, and general inability to become a part of the larger social arena. For elderly women, the key issue underlying mood and behavioral dysfunction is identified as social isolation (Ory, 1992). Although not explicitly asked in the survey instrument of this study, participation in social settings was addressed indirectly.

Positive Psychological Factors

Subjective Well-Being

Mediating processes and moderating factors determine how one reacts to an external stressor. One mediating process is appraisal or subjective well-being. Stressors can be interpreted in different ways, such as harm, loss, threats, or challenges. When appraising the situation, certain aspects are considered. For example, one may think of the predictability or uncontrollability of the stressor, the stability or instability of the stressor, the global or specific nature of the stressor, and/or the internal or external affects of the stressor. The responses to these possibilities affect how the individual will react to

the stressor. If the event is judged to be uncontrollable, it will be more stressful. If it is more stable and global, people will react in a helpless manner. If it is more internal, people will feel worse about themselves (Biswas-Deiner, 2004).

Subjective well-being has applications in aging populations as well. As Levkoff, Clear, and Wetle (1987) pointed out “self-appraisal of health [was] significantly associated with objective health, but an individual’s self-report of health [was] not determined exclusively by health status” (p.114). Most notably were findings that perceived health was predictive of changes in disability (Ferraro, Farmer, & Wybraniec 1997; Mor et al. 1989; Wilcox, Kasl, & Idler 1996) and mortality (Idler & Angel 1990; Idler & Kasl 1991; Wolinsky & Johnson 1992). Subjective well-being influences the subjective perception of health, and this strengthens the correlation between subjective well-being and subjective health. It appeared that the way people perceived the world was much more important to happiness than objective circumstances like disability or mortality.

Coping

Another mediating process in the management of stress is coping. There are two main strategies of coping: problem-focused coping and emotion-focused coping (Lazarus & Folkman, 1984). In some cases an individual may focus only on solving the problem or on dealing with the emotional distress that it creates. Problem-focused coping tries to manage and alter stressors and is more useful in situations in which a constructive solution can be found. Problem-focused coping strategies include confronting by

changing a stressful situation assertively, as well as planned problem solving which includes solving through deliberate, problem-focused strategies (Taylor & Armor, 1996).

Emotion-focused coping tries to regulate one's emotional response to stressors and is more useful in situations in which the problem must be accepted. Some of these coping strategies include self-controlling, distancing, and positive reappraising by finding a positive meaning in a stressful experience and focusing on personal growth. Others include accepting responsibility and escaping/avoiding which can manifest as drinking, overeating, or using drugs (Taylor & Armor, 1996). An example of emotion-focused coping was of an older woman who learned that her closest friend had a terminal illness. She may have cried and sympathized with her friend. This could have alleviated the stress that both were feeling, but unless she took some action such as reviewing the medical literature for some new therapies for the disease, she may not have coped with the problem itself.

The question of whether coping styles change with age has been explored by researchers focused on specific challenges such as caregiving for a frail spouse or parent, or on different types of problems (e.g., relocation vs. death of a loved one), or on general styles of appraising coping with life's challenges (Ryff, Kwan, & Singer, 2001). As an example of the latter type of general coping strategies, one study compared men and women across age groups. Older women were found to use more impulse control and positive appraisal, while men regardless of age tended to rely on more aggressive strategies. Gender differences emerged in the use of internalizing versus outwardly expressing emotions in stressful conditions; women preferred the former and men the latter (Diehl, Coyle, & Labouvie-Vief, 1996). The extent to which life events are

generated by the individual or are externally created with no choice by the person who experiences the event can disrupt the individual's coping style, regardless of age. Nevertheless, uncontrollable events have propelled the older person toward further growth and development (Deihl, 1999).

Studies of coping among the old-old indicated that acceptance of changes in one's life (e.g., institutionalization, divorce of children or grandchildren) may be the most adaptive coping response (Carstensen, Pasupathi, & Mayr, 2000). Control over external events may become less important than the need to make uncontrollable events more acceptable to one's values and beliefs. In most cases, the coping styles chosen by an older person were appropriate for the problem at hand and resulted in successful adaptation. The majority of older people appeared capable of using a wide repertoire of coping responses and could call upon the most effective ones for a given situation (Costa & McCrae, 1994). In sum, most people maintained their coping styles into old age, and used appropriate responses.

Optimism

When people confronted adversity or difficulty, they experienced a variety of emotions, ranging from excitement and eagerness to anger, anxiety, and depression. The balance among these feelings appeared to relate to people's degree of optimism or pessimism. Optimists are people who expect to have positive outcomes, even when things are hard (Marsa, 2004). This confidence should yield a mix of feelings that is relatively positive. Scheier's (1985) study on optimism, coping, and health revealed that optimism was positively correlated with manifestations of problem-focused coping and

negatively with emotion-focused coping, suggesting that optimists perform better because they employ coping strategies that enhance skill based learning such as problem solving. Pessimists expect negative outcomes. This doubt should yield a greater tendency toward negative feelings – anxiety, guilt, anger, sadness, or despair (Carver & Scheier, 1998; Scheier & Carver, 1992).

Relationships between optimism and distress have been examined in diverse populations facing difficulty and adversity. Included were the experiences of survivors of missile attacks (Zeidner & Hammer, 1992); people caring for cancer patients (Given et al., 1993) and Alzheimer's patients (Hooker, Monahan, Shifren, & Hutchinson, 1992). Research has also examined experiences of people dealing with childbirth (Carver & Gaines, 1987), abortion (Cozzarelli, 1993), bone marrow transplantation (Curbow, Somerfield, Baker, Wingard, & Legro, 1993), the diagnosis of cancer (Carver et al., 1993; Freidman et al., 1992), and the progression of AIDS (Taylor et al., 1992). Many of these studies focused on people who were undergoing truly serious crises rather than ordinary problems of everyday life. These studies showed that pessimists experienced more distress after the event than did optimists. A study conducted by Ferraro (1993) supported the above premise. The question asked was whether the more extensive health problems of minority older adults led to a more pessimistic outlook on health. The results of Ferraro's study revealed that Black older adults reported significantly more functional morbidity and more negative health assessments than White older adults. Within this cohort, older Black women reported the highest level of functional morbidity and the most negative assessments of health.

Perhaps these women had a higher internal locus of control and as a result felt worse because the stressor of extensive health problems was something they could not control. These feelings (i.e., lack of control) increased physiological and psychological stress which impacts health negatively.

Therefore, it is important that one adopt an optimistic view (Seligman, 1991), especially when it comes to the aging population. One study actually revealed that among an aging population, an optimistic outlook on life was essential for the preservation and maintenance of a functional health status (Aschat, Kawachi, & Spiro, 2000).

Optimism has also been studied in the context of other kinds of health crises. One study examined the medical situation of infertility. Although not always successful, a procedure known as *in vitro fertilization* is one way to overcome fertility problems. Litt and colleagues (1992) studied people whose attempts were unsuccessful. Approximately eight weeks before the attempt, the researchers measured optimism, specific expectancies for fertilization success, coping strategies, distress levels, and the impact of infertility on participants' lives. Two weeks after notification of a negative pregnancy test, distress was reassessed. Demographics, obstetric history, marital adjustment, nor the reported effect of infertility on participants' lives predicted distress, but optimism did.

Another study examined the influence of optimism on adjustment to abortion (Cozzarelli, 1993). One hour prior to an abortion, women completed measures of optimism, self-efficacy, emotional adjustment, and depression. Depression and adjustment were assessed 30 minutes after the abortion and again three weeks later. Optimists had less preabortion depression, better postabortion and better three week

adjustment than did the pessimists. Cozzarelli concluded that optimism relates to psychological adjustment both directly and indirectly through a sense of personal efficacy.

Another study examined adjustment to treatment for early stage breast cancer (Carver et al., 1993). Diagnosis and treatment for breast cancer is a traumatic experience, in part because the disease can be life threatening. However, because the prognosis for early-stage cancer is relatively good, there is enough ambiguity about the future to permit individual differences to be readily expressed. Patients in this study were interviewed seven to ten days after surgery, and three, six, and twelve months later. Optimism inversely predicted distress over time, above and beyond the effect of medical variables and beyond the effects of earlier distress. In other words, the prediction of distress at three, six, and twelve months after surgery was significant even when the immediately prior level of distress was controlled. Therefore, optimism not only predicted lower initial distress, but also resilience against distress during the year following surgery.

Resilience

The idea of individual resilience in the face of adversity has been around for a very long time (Campbell, 1970). Around 1970, a pioneering group of developmental scientists turned their attention to the observable phenomenon of children at risk for problems and psychopathology who nonetheless succeed in life (Masten, 1999). These children were believed to be at risk for serious problems because of their biological heritage (e.g., a parent with schizophrenia), perinatal hazards (e.g., premature birth), or their environment (e.g., poverty). These investigators argued that understanding such

phenomena, the study of resilience, held unlimited potential in promoting competence and ameliorating problems. For example, in pediatric psychology, several resilience models have emerged to frame issues of children who have chronic illnesses such as diabetes, cystic fibrosis, or sickle-cell disease (Cassileth, et al., 1984; Williams, 1993). These pioneers inspired three decades of research on resilience in development that has provided models, methods, and data with implications for theory, research, and intervention.

As research in this field has advanced, no longer is the focus only on the individual. Researchers now understand that positive adaptation in the context of significant adversity or risk is multifaceted and often involves an ecological approach. Not only should one consider the personal attributes of the individual, but also the family, other social supports, environmental factors, and policies (Smith & Prior, 1995). For instance, findings from a wide-ranging and diverse literature on resilience in children and youth converge with striking regularity on a set of individual and environmental attributes associated with good adjustment and development under a variety of life course-threatening conditions across cultural contexts (Anthony, 1974, Werner & Smith, 1982; Masten, 1994; Luthar, Cicchetti, & Becker, 2000; Wyman, Sandler, Wolchik, & Nelson, 2000). Some of the protective factors for psychosocial resilience may occur within the child (e.g., positive self-perceptions), within the family (e.g., parents involved in child's education), within the family and other relationships (e.g., connections to prosocial and rule-abiding peers), and within the community (e.g., neighborhoods with high "collective efficacy") (Rutter, 1990). Collective efficacy refers to neighborhoods that combine social cohesion with informal social control (Sampson, Raudenbush, &

Earls, 1997). These protective factors represented multiple contexts providing structure, safety, opportunities to learn and to develop talent, adult role models, support for cultural and religious traditions, and many other social capital resources that are important in preserving psychosocial resilience as children become adults.

Most experts conceptualize resilience as a fluid process rather than a fixed one (Rutter, 1990). This means that individuals who demonstrate resilience in one life station or stage may or may not do so in another. This concept is particularly salient for elderly people. There needed to be an understanding of the unique dynamics of resilience at this life stage because a person who appears to be resilient in childhood will not necessarily be so in old age, and others who might have seemed vulnerable early in life exhibit resiliency in their later years (Glantz, & Johnson, 1999).

With regard to the resilience of aging women of color, social supports and living arrangements were important attributes. Overall, African American elders appeared to have a broader range – not just a larger number – of informal instrumental and emotional supports than was characteristic of white older people. Norms of reciprocity were strong and have evolved from a cooperative lifestyle that served as a survival mechanism in earlier times and which continues to be a source of support. Such informal helpers often function as critical links to social services (Dreeban, 2001).

In addition, studies of psychological and general well-being among African American elders illustrated the benefits of social support and provided evidence that resilience was positively correlated with manifestations of problem-focused coping (Taylor & Armor, 1996). For example, in a study by Valliant (2002), despite significant economic hardships, the majority of older blacks (N = 90), especially those 75 and older,

reported high life satisfaction and happiness compared to their white counterparts (N = 100), regardless of living conditions. This may have reflected the decreasing demands of family and employment responsibilities in this oldest group, and the associated perception of few significant stressors affecting them. Therefore, even though they may be facing the stress of their friends dying, and further social isolation, older Black American women appeared to be more resilient because of their perceptions about these life events and the ability to sustain social support systems in times of hardship.

Religiousness

The association between religion or spirituality and health has been receiving growing attention. A primary reason for this greater attention was that the benefits of religion for physical and mental-well being appeared to be significant and consistent. Perhaps the most compelling finding was that religious participation appeared to reduce the risk of mortality and was associated with lower prevalence of physical illness. For example, religious participation has been shown to reduce the risk of death and decrease recovery time among patients undergoing cardiac surgery (Koenig, McCullough, & Larson, 2001). Religious activity in later life was also associated with better immune functioning, lower blood pressure, and greater longevity overall (Koenig, 2002).

What was unclear was the extent to which religion had protective effects on health, and therapeutic effects on the course and outcomes of illness. It did appear that religious participation (e.g., attending religious services) was associated with lower incidence and prevalence of the onset of disability. In addition, for those who experienced functional limitations, there was an increased likelihood of improving their

physical functions if they attended services because they were exerting a physical effort to attend (Hummer, Rogers, Nam & Ellison, 1999). Accordingly, individuals who reported that they turned to their religious beliefs to cope with their problems exhibited better outcome (Ellison, Baordman, Williams, & Jackson, 2001). Because religion provided a worldview that infused the present with meaning and the future with hope, it may have helped people cope with health problem and stressors that were restricting, limiting, and disempowering (Ellison & Levin, 1998; Hudson, 2002; Koenig, 2002; McCullough et al., 2001; Miller & Thoresen, 1998).

Of the various options for organizational participation, the common choice for older persons was through their religious affiliation. After family and government, religious groups were an important source of instrumental and emotional support for older people (Cutler & Hendericks, 2000). Aside from participation in organized religion, the meaning and importance of religion were stronger in old age than in earlier phases of life (Wink & Dillon, 2001). In a 2002 Gallup Poll, people 65 and over were the most likely of any age group to belong to church-affiliated groups that could provide a loving, supportive community, and a way to contribute.

Although religiousness and spirituality are closely related, there is a difference between the two concepts. Religiousness is often examined in terms of three factors: participation in religious organizations, the personal meaning of religion and private devotional activities within the home, and the contribution of religion to individuals' adjustment to the aging process and their confrontation with death and dying (Atchley, 1995). Spirituality – or the belief in a higher power – can be differentiated from organized religion, but not necessarily from religiousness, which can be separate from

formal religious participation (Atchley, 1995). Although small proportions of the population in national studies describe themselves as “spiritual but not religious,” the majority of people describe themselves as both religious and spiritual, which makes it difficult to determine estimates of their unique effects on physical and mental well-being (McCaffrey, Eisenberg, & Legedza, 2004). Those that view themselves as spiritual but not religious appeared to be rejecting participation in organized religion, but emphasizing personal spiritual practices such as praying or meditating, appreciating nature, applying spiritual principles to everyday life, and practicing positive emotions such as gratitude and forgiveness. Accordingly, spirituality could be expressed in trying to find the meaning and purpose of life, looking at the significance of past events, and wondering what will happen after death (George, 2002; Pargament, Smith, Koenig, & Peres, 1998; Zinnbauer et al., 1997).

High levels of spirituality, as measured by closeness to a supreme power, were found to be associated with mental health indicators such as purpose and meaning of life, self-esteem, and positive perception of quality of life (Burke, 1999; Kavanaugh, 1997). Similarly, spiritual beliefs influenced definitions of health, the prevention of illness, health promotion, and coping with illness. For example, the National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health, conducted the largest (N = 31, 000) and most comprehensive survey of Americans’ use of complementary and alternative medicine (CAM) (Barnes et al., 2002). When prayer was include in the definition of CAM, 62 percent had used CAM. Among the respondents, 45 percent had used prayer for health reasons, 43 percent had prayed for their own health,

almost 25 percent had others pray for them, and almost 10 percent had participated in a prayer group for their health (Barnes et al., 2002).

Another example of the correlation between spirituality and health was a study of older women diagnosed with breast cancer. Researchers found that spirituality was an effective coping strategy that provided mental and social support and the ability to find meaning for living (Feher & Maly, 1999; Koenig, 1995). Such findings were consistent with the relationships between religiousness and health, since many of the private forms of religious participation (e.g., prayer, meditation, personal rituals) were similar whether people define themselves as religious or spiritual (George, 2002).

Religion also has benefits for mental well-being, self-esteem, life satisfaction, a sense of usefulness, and morale (Ellison & Levin, 1998). Religious participation was associated with decreased prevalence of mental illnesses, such as major depression, anxiety disorder, and substance abuse (Koenig, 1997). As in the case with recovery from physical illness, religious coping – religious participation and private devotional activities – was the facet of religious experience most strongly related to recovery from depression (Binstock, 2002; Idler, 2002; Koenig, George, & Peterson, 1998).

Studies of religious activity identify both gender and racial differences.

Consistent with patterns of involvement in other organizations, women, particularly African American women, have higher rates of religious involvement than men (Levine, Taylor, & Chatters, 1994). Religion appeared to be central to the lives of most older African Americans of both sexes and to be related to their sense of meaning, life satisfaction, feelings of self-worth, personal well-being, and sense of resilience and integration in the larger community (Krause, 2003). The high esteem afforded African

American elders in the church may partially underlie these positive associations. Historically, African Americans have had more autonomy in their religious lives than in their economic and political lives. The negative effects of life stress for older African Americans were found to be offset by increased religious involvement through prayer, other private religious activities, and a cognitive reframing of the situation in positive terms (e.g., “I have been through a lot before, but I will get through this too”) (Black, 1999; Kessler, Mickelson, & Williams, 1999; Levin & Taylor, 1997; Mattis & Jagers, 2001).

Aging African Americans life satisfaction was also explained in terms of their spiritual orientation and their religious participation (Levin, Chatters, & Taylor, 1995). Among African American women in particular, spirituality was found to engender self-esteem and positive interpretations of life circumstances (Black, 1999). The strong association between religion and physical and mental well-being did not imply that religious factors were the only or the primary factors causing good health. Religion has beneficial effects on health because there are so many different pathways for it, through the modification of known risk factors (i.e., not smoking, not drinking alcohol, not engaging in sexual misconduct), the provision of social support, and the availability of belief systems for coping with adverse circumstances and reducing depression in late life.

Regardless of the particular pathway, a growing body of evidence showed that religious participation has protective effects on health and helped older adults cope more effectively with their health problems. In fact, the strength of relationships between religious involvement and well-being has increased over time (Levin, Chatters, & Taylor, 1995; Musick, 2000).

Quality of Life

A reliable evaluation of health takes into account not only a physician's assessment of a patient's physical condition, but also the older person's self-perceptions, observable behavior, and life circumstances. Quality of life may be defined as this combination of an individual's functional health, feelings of competence, independence in activities of daily living (ADL), and satisfaction with one's social circumstances. Most older people appeared to adjust their perceptions of health in response to the aging process. In a 2001 national health survey of those aged 65 and older (N = 35,291), 42 percent of respondents aged 65 to 74 rated their health as excellent or very good, compared with 31 percent of those aged 85 and older. Even institutionalized older persons (age 65 and older) tended to rate their health positively (Merck Institute, 2002). Older people who must take multiple medications, who experience chronic pain, or who have financial and ADL limitations were more likely to report a lower quality of life (Allison, Locker & Feine, 1997).

On the other hand, those who have recently had a successful medical or surgical intervention to alleviate the symptoms of their chronic conditions were more likely to report improved quality of life. It was noteworthy that physicians rate the quality of life of older persons with diabetes, arthritis, or even heart disease lower than do these elders themselves (Stomp, Johnson, & Wolinsky, 1995). This may indicate greater adaptation to disabling conditions among patients than physicians expect, or may suggest that medical professionals' definitions of quality of life are more constrained by health factors than are patients' own perceptions.

Social and psychological factors also influence people's assessment of their physical well-being. An older person's position in the social structure affected perceptions of health. Health self-ratings as good or excellent have been found among more than 72 percent of white persons age 65, but only 52 percent of older African Americans (N = 18,313) (NCHS, 2003). Also, African Americans were less likely to report their health as excellent: 26 percent of those aged 65 to 74 (N= 1,670) compared to 42 percent of all other ethnic groups in this age group (N = 1,811) (NCHS, 2003). In general, women did not rate their health more poorly than men, even though they had more chronic diseases and were more likely to live in long-term care facilities (NCHS, 1999).

Perceptions of good health tended to be associated with other measures of well-being, particularly life satisfaction. Older persons who view themselves as reasonably healthy tended to be happier, more satisfied, more involved in social activities, and less tense and lonely (Myers & Diener, 1995; Watson, 2000). For example, life satisfaction among cancer survivors has been reported as better than that of controls (Irwin, Allen, Kramer, & Danoff, 1982) and a series of studies of transplant recipients, and hemodialysis patients revealed that the patients' level of satisfaction or life quality often exceeded that of a healthy population (Evans, 1991).

In turn, lower life satisfaction was associated with lower levels of self perceived health. It has also been found that self-ratings of health were correlated with mortality. That is, older people who reported poorer health, especially poorer functional abilities, were more likely to die in the next three years than those who perceived their functional health to be good (Bernard, Kincade, Konrad, Arcury, & Rabiner, 1997). For example,

the life satisfaction of a group of elderly and middle-aged spinal cord injury patients was reported as slightly worse than that of controls (Decker & Schultz, 1985). As a result, this population of patients died sooner than the controls who perceived their functional health to be better.

In sum, many people in United States have achieved a level of material abundance and health that allowed them to go beyond mere survival in seeking the good life. They were concerned with issues of quality of life beyond economic prosperity. They were concerned about their health and overall life satisfaction (Palmore & Kivett, 1977; Goodinson & Singleton, 1989). The aging community was no different. They were not content to have experts evaluate their lives; they believed their opinions matter. The concepts of resilience, optimism, and religiousness were believed to help explain the generally positive evaluations by older adults of their health and their perceptions about their quality of life.

Theoretical Foundations

Many of the positive psychological factors which can help improve quality of life were immersed in theory. Because this research investigated aging African-American women, the focus of this section of the document will be on relevant social theories of aging and theories of health behavior that have been associated with this target population.

In contrast to personal observations about biological and psychological changes that occur as one ages, the scientific approach to theory development is a systematic attempt to explain why event occurs. Theory building – the cumulative development of explanation and understanding about observations and findings – represents the core of

the foundation of scientific inquiry and knowledge (Bengston, Burgess, & Parrott, 1997). By using scientific methods, researchers seek to understand phenomena in a manner that is reliable and valid across observations, and then to account for what they have observed in the context of previous knowledge in the field.

Scientists never entirely prove or disprove a theory. Instead, through empirical research, they gather evidence that may strengthen their confidence in it or move them closer to rejecting the theory by demonstrating parts of it are untrue. Scientific theories not only lead to the accumulation of knowledge, but point to unanswered questions for further research and suggest directions for practical interventions. If theory is inadequate, the research, intervention, or public policy may fail by not achieving its intended goals (Bengston, Burgess, & Parrott, 1997).

Social Theories of Aging

Social theories of aging provide explanations of changes in social relationships that occur in late adulthood. No one grand, all-encompassing social gerontological theory has emerged. Most of these theories have been developed only since the 1950s and 1960s, and many have not been adequately tested. This is because early research in the field of gerontology tended to be applied rather than theoretical, attempting to solve problems facing older people. Researchers were concerned with individual life satisfaction and older people's adjustment to the presumably "natural" conditions of old age. Despite their relative recency, theories of aging can be classified into first, second and third generations (Bergnston, Burgess, & Parrott, 1997; Hendricks, 1992), or evolution of new models of consciousness (Lynott & Lynott, 1996).

Although there is some overlap of the central theoretical concepts across time, these theories are distinguished by a shift from a focus on individual to structural factors to interactive process, and from largely quantitative methods in the positivist scientific tradition to a range of more qualitative methodologies that seek to understand the meaning of age-related changes among those experiencing them.

Continuity Theory

The continuity theory maintains its focus on social-psychological theories of adaptation that were developed from the Kansas City Studies (Marshall, 1994). The Kansas City Studies were carried out over a decade, from 1952-1962, and were funded by the Carnegie Corporation and the National Institute of Mental Health to the Committee on Human Development of the University of Chicago. There were two sets of studies. The first was based on single interviews with 750 persons aged 40 – 70; the second began with 280 persons aged 50-90, some of whom were interviewed many times over six years (Neugarten, 1987). The Kansas City Studies had a profound impact on the field of gerontology. Neugarten (1987, p.373) has concisely described the legacy of the Kansas City Studies: “ Overall, then, a major legacy of the Kansas City Studies has been to demonstrate not only that there is no single direction or pattern of social-psychological aging, but no single pattern of optimal aging.” The Kansas City Studies began with a simplistic notion of normal aging, and as the studies proceeded, internal theoretical development and spill-over into the broader intellectual community led to a greater specification of the complexity of aging processes. Robert Atchley’s Continuity Theory attempted to address some of these complexities (Atchley, 1989).

According to continuity theory, individuals tend to maintain a consistent pattern of behavior as they age, substituting similar types of roles for lost ones and maintaining typical ways of adapting to the environment. In other words, individuals do not change dramatically as they age, and their personalities remain similar throughout their adult lives. Life satisfaction is determined by how consistent current activities or lifestyles are with one's lifetime experiences (Atchley, 1972; Neugarten, Havighurst & Tobin, 1968). Basically, this perspective states that, with age, one becomes more of what he or she already was when younger.

Central personality characteristics become even more pronounced, and core values even more salient with age. For example, people who have always been passive or withdrawn are unlikely to become active upon retirement. In contrast, people who were involved in many organizations, sports, or religious groups are likely to continue these activities or to substitute new ones for those that are lost with retirement or relocation (Covey, 1981). An individual ages successfully and "normally" if she or he maintains a mature, integrated personality while growing old.

Continuity theory has some face validity because it seems reasonable. However, it is difficult to test empirically, since an individual's reaction to aging is explained through the interrelationships among biological and psychological changes and the continuation of lifelong patterns. Another limitation is that, by focusing on the individual as a unit of analysis, it overlooks the role of external social factors in modifying the aging process. However, over time, the foundational studies of this theory have forced investigators to recognize diversity in their data. In addition to the original studies

adopting and promoting a highly individualistic understanding of aging, they also contributed to the viewing of aging in a life course perspective.

The life-course perspective has become the new orthodoxy of aging and the social sciences (Marshall, 1995). The life-course perspective is not a theory but a framework which attempts to bridge sociological and psychological thinking about processes at both the macro (population) and micro (individual) levels of analysis by incorporating the effects of history, social structure, an individual meaning into theoretical models (Bengtson, Burgess, & Parrott, 1997; Marshall, 1996). One reason for its widespread adoption has been an openness of life-course analysts to different perspectives (George, 1993). Another is its value. The value of the life-course is in its explicit attempt to view the individual biography within the context of society, and to take a historical perspective on both the individual and society (Elder, 1992). “New models of age relations must therefore begin by reconceptualizing the crucial nexus that joins the individual and the societal structures that impinge upon human lives” (Dowd, 1987, p.327). This perspective suggests that development is not restricted to any one part of the life span and is a lifelong and highly dynamic process. It is this concept of continual change over one’s life span that illustrates how it is an extension of the continuity theory. This new model simply provides a more complex explanation for the aging process by encompassing biological, psychological, physiological, and social changes and drawing upon many of the concepts of intraindividual change, interindividual variability, and historical, social, and cultural contexts or environments.

Social Exchange Theory

Drawing upon economic cost-benefit models of social participation, Dowd (1980) attempted to answer why social interaction and activity often decrease with age. He maintains that withdrawal and social isolation are not the result of system needs or individual choice, but rather of an unequal exchange process of “investments and returns” between older persons and other members of society. The balance of interactions existing between older people and others determines personal satisfaction.

Accordingly, individual adjustment depends on the immediate costs and benefits/rewards between persons, although exchange may also be driven by emotional need and resources, such as social support (Bengston, Burgess, & Parrott, 1997). Because of this shift in opportunity structures – formal and informal social arrangements that limit or advance options available to people based on features such as social class, age, ethnicity, and gender – as well as in the roles and skills that accompanies advancing age, older people typically have fewer resources with which to exert power in their social relationships, and their status declines accordingly (Hendricks, 1995). Society is at an advantage in such power relationships, reflected in the economic and social dependency of older people who have outmoded skills. With fewer opportunity structures and little to exchange in value, some older people are forced to accept the retirement role and to turn to deference and withdrawal in order to balance the exchange equation (Lyncott & Lyncott, 1996).

Despite limited resources, most older adults seek to maintain some degree of reciprocity, and to be active, independent agents in the management of their lives. In this model, adaptability is a dual process of influencing one’s environment as well as

adjusting to it. Although older individuals may have few economic and material resources to bring to the interaction or exchange, they often have nonmaterial resources such as respect, approval, love, wisdom, and time for voluntary activities. The exchange theory is relevant to contemporary debates about intergenerational social support and transfer across generations within families through caregiving relationships.

Theories of Health Behavior

Humans by nature are social beings. As such, the behaviors adopted over time with regards to health are uniquely connected to social relations. So as one ages, the relationships between social factors and health become a central concern. Health is multidimensional, and several dimensions are important in understanding the relationship among social factors, age and health. There is broad consensus that health has biological, psychological, and social components. Health behaviors have important psychological determinants with effects on normal aging and disease, all of which are difficult to disentangle.

Health behavior change is a nationally mandated imperative. It actually speaks to the heart and soul of quality of life, life expectancy and longevity, and to the survival of a large segment of society. Culturally competent health care means the ability to understand and accept the lived realities and behaviors of the minority community. As long as the racial divide in health care exists, the quality of life for minority groups will continue to be poor, and their illness and mortality rates will remain higher than that of their white counterparts. Social support and the Transactional Model of Stress and Coping are two health behavior concepts used to promote health within this population.

Social Support

There is a definite link between social relationships and health among African Americans (Kivett, 1993; Leclere, Rogers, & Peters, 1998; Lee, Peck, & Coward, 1998; Lewis, 1989). The proportion of married African Americans is lower than that of any other population. This is because of lower life expectancy for black men in particular and high rates of widowhood among black women (48% are widowed compared to 19% among their male peers) (NIH, 2000). Among African Americans over age 65, 54 percent of men and 25 percent of women are married. This compares with 80 percent and 41 percent, respectively, among whites (NIH, 2000). Almost 50 percent of African American women live alone, a higher proportion than that of their white counterparts or older black males. Those who live alone are more likely to be impoverished, marginally housed, and even homeless (Killon, 2000).

As the social exchange theory suggests, intergenerational social support has an important role in health maintenance of aging African American women. In the past few years a growing body of research has emerged on the family and informal support networks of black adults in general and elderly blacks in particular (Taylor, 1988; Taylor, Chatters, Tucker, & Lewis, 1990). Analysis of informal support networks indicated that family, friends, and church members may differently provide particular types of assistance. Family members were more likely to provide either total or instrumental support (i.e., goods and services, financial assistance, and transportation). Friends were more likely to provide companionship, assistance in the form of advice and encouragement, and help during sickness, while church member were more likely to provide prayer.

Even though most older African Americans do not live in extended families, approximately 20 percent, compared to 12 percent of their white counterparts, live with a family member other than their spouse (Johnson & Wolinsky, 1994). In fact, older African American women are more likely than white women to have family living with them in their homes. Most often these are three generation households, with older women at the top of the family's power hierarchy, playing an active role in the management of the family (Smith, 1997). Older African American women often provided financial assistance and care for grandchildren, as well as children of other family members and friends. On the other hand, intergenerational households that develop out of financial necessity illustrated the resourcefulness of black families whose domestic networks expand and contract according to economic resources (Silverstein, Chen, & Heller, 1996).

In addition, the perceptions of caregiving roles appeared to impact health with regards to the stressors of daily living (Williams, Dilworth-Anderson, & Goodwin, 2003). Older black women and men both strongly endorsed gender equality in homemaking and provider role activities (Coleman, 1988; Ericksen, Yancey, & Ericksen, 1975). But assessments of actual behavior indicated that older black women were more likely than their male counterparts to perform household tasks and to report that time constraints and burdens are associated with those activities – inducing stress (Broman, 1988). Focusing on marital roles and attitudes, older African Americans adults were similar in their perceptions of having performed well in the spousal role. Perceptions of equity in marriage revealed that most respondents felt that their and their spouse's contribution to

the marital relationship was about equal (Glenn, 1975; Traupmann & Hatfield, 1983; Szinovacz, 1989; Bogard & Spilka, 1996).

Perceptions of unmarried life revealed that separated and divorced older black adults tended to feel that being unmarried was better than being married, and this was particularly true among women and older respondents. Similarly, perceptions of single life among never-married, divorced, separated, and widowed older persons revealed that personal freedom and independence from previous responsibilities were highly valued, although lack of companionship and loneliness were acknowledged disadvantages of being single (Lee, 1988; Goldman, Korenman, & Weinstein, 1995).

According to a study conducted by Lewis (1989) about role strain in African American women (N =592), family and friends were designated as primary social networks for equal numbers of respondents, but relatively older persons were more likely to visit friends. Older respondents indicated that they were less likely to rely on relatives. Levels of interaction with friends revealed that widowed respondents were more likely to maintain contact on a frequent basis. The majority of older women felt they had performed well as a friend.

In summary, the level of diversity in the behaviors and attitudes of aging African American women not only confirmed the heterogeneity of this population group, but also the necessity for a variety of social supports as a means of promoting health and reducing stress. People with stronger support networks coped better with all types of stressful life events (Muttan, Reitzes, Mossey, & Fernandez, 1995; Oxman & Hull, 1997).

Transactional Model of Stress and Coping

The Transactional Model of Stress and Coping provides a framework for evaluating the process of coping with stressful events. The impact of an external stressor, or demand, is mediated by the person's appraisal of the stressor and the psychological, social, and cultural resources at his or her disposal and as such stressful experiences are construed as person-environment transactions (Lazarus & Cohen, 1977; Cohen, 1984). Initially, a person evaluates the potential threat or harm of a stressor (primary appraisal). This assessment is often followed by evaluating his or her ability to alter the situation and manage negative emotional reactions (secondary appraisal). It is the coping efforts which are aimed at problem management and emotional regulation that give rise to the outcomes of the coping process (Lazarus, 1993). The outcomes of the stress and coping process are determined by interplay of situational factors, individual appraisals of the situation, and the coping strategies employed. The outcomes of the stress and coping process are determined by the interplay of situational factors, individual appraisals of the situation, and the coping strategies employed. Figure 2-1 illustrates the interrelationships among the concepts and Table 2-1 summarizes the key concepts, definitions, and applications of the Transactional Model of Stress and Coping (Glanz, 2002).

Figure 2-1. Diagram of Transitional Model of Stress and Coping

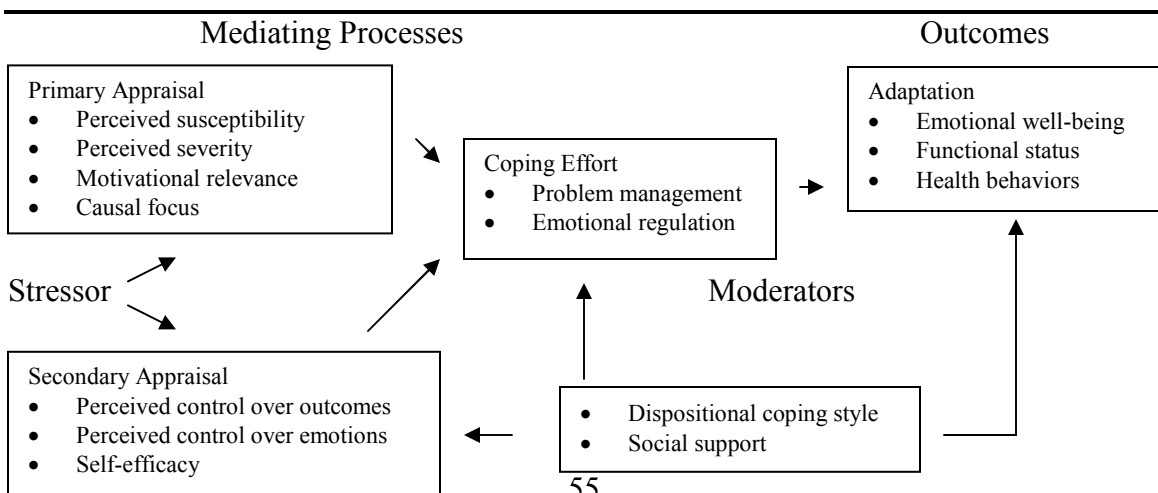


Table 2-1. Transactional Model of Stress and Coping

Concept	Definition	Application
Primary appraisal	Evaluation of the significance of a stressor or threatening event	Perceptions of an event as threatening can cause distress. If an event is perceived as positive, benign, or irrelevant, little negative threat is felt.
Secondary appraisal	Evaluation of the controllability of the stressor and a person's coping resources	Perception of one's ability to change the situation, manage one's emotional reaction, or cope effectively can lead to successful coping and adaptation.
Coping efforts	Actual strategies used to mediate primary and secondary appraisals	
Problem management	Strategies directed at changing a stressful situation	Active coping, problem solving, and information seeking
Emotional regulation	Strategies directed at changing the way one thinks or feels about a stressful situation	Venting feelings, avoidance, denial, and seeking social support
Outcomes of coping (adaptation)	Emotional well-being, functional status, health behaviors	Coping strategies may result in short- and long-term positive and negative adaptation.
Dispositional coping styles	Generalized ways of behaving that can affect a person's emotional or functional reaction to a stressor; relatively stable across time and situations	

The Transactional Model has generated an extensive body of literature on coping strategies, adjustments to illness, and health behavior. In general, these studies provided evidence for the psychological benefits of active coping strategies and acceptance and reappraisal over avoidant or disengaging strategies (Carver, 1993; Taylor, 1992). The first step in coping is to appraise the stressor. Primary appraisal is a person's judgment about the significance of an event as stressful, positive, controllable, benign, or irrelevant. The two basic primary appraisals are perceived susceptibility to the stressor and perceived severity of the stressor. According to this model, appraisals of personal risk and threat severity prompt efforts to cope with the stressor. Appraisals of high personal

risk or threat may generate distress and prompt escape-avoidance behaviors (Schwartz, 1995; Folkman, 1986).

Other primary appraisals involve motivational relevance and causal focus of the stressor. With high motivational relevance, a stressor is appraised as having a major impact on a person's goals or concerns and may cause an individual to experience anxiety or situation-specific distress (Smith & Lazarus, 1993). With self-causal focus, one perceives that he/she is responsible for the stressor and may cause an individual to experience feelings of guilt and depression (Smith, Haynes, Lazarus, & Pope, 1993; Lewis & Daltroy, 1990).

In contrast to the primary appraisals, secondary appraisals address what one can do about the situation, rather than focusing on features of the stressful situation. Secondary appraisal is an assessment of a person's coping resources and options (Cohen, 1984). The two key examples of secondary appraisals are perceived ability to change the situation and perceived ability to manage one's emotions. Several studies indicate positive associations between perceptions of control over a situation or problem and psychological adjustments and health behaviors (Marks, Richardson, Graham, & Levine, 1986; Taylor, Helgeson, Reed, and Skokan, 1991; Taylor, 1992; Thompson & Spacapan, 1991). Regardless of the type of secondary appraisal, beliefs about personal control are likely to be adaptive only to the extent that they fit with reality (Brownell, 1991).

According to the Transactional Model of Stress and Coping, there are two overarching dimensions of coping efforts: problem management and emotional regulation. Problem management attempts to change a stressful situation by using problem solving and information seeking strategies. Emotional regulation attempts to

deal with a stressful situation by changing how one feels and thinks about the situation. These strategies include seeking social support, venting feelings, avoidance, and denial. The extent to which specific coping strategies result in desirable or undesirable outcomes may depend on whether short-term or long-term outcomes are considered more important (Cohen, 1984). Coping outcomes represent the individual's adaptation to stressors following appraisal of the situation (primary appraisal) and resources (secondary appraisal) and are influenced by coping efforts. The three main categories of outcomes are emotional well-being, functional status, and health behaviors. The variability of stressor presentation determines the time frames and choice of outcomes. It is this type of coping flexibility that promotes improved maintenance of health behavior changes (Brandon, Copeland, & Saper, 1995) which ultimately enhance quality of life outcomes.

In summary, the discussions of relevant social theories of aging and theories of health behavior provided the foundation for the conceptual framework of the proposed research. This research investigated aging African-American women and the theories highlighted in this chapter have been highly associated with this target population. The next section will describe the rationale for the conceptual framework and its relation to the themes of this research.

Conceptual Framework

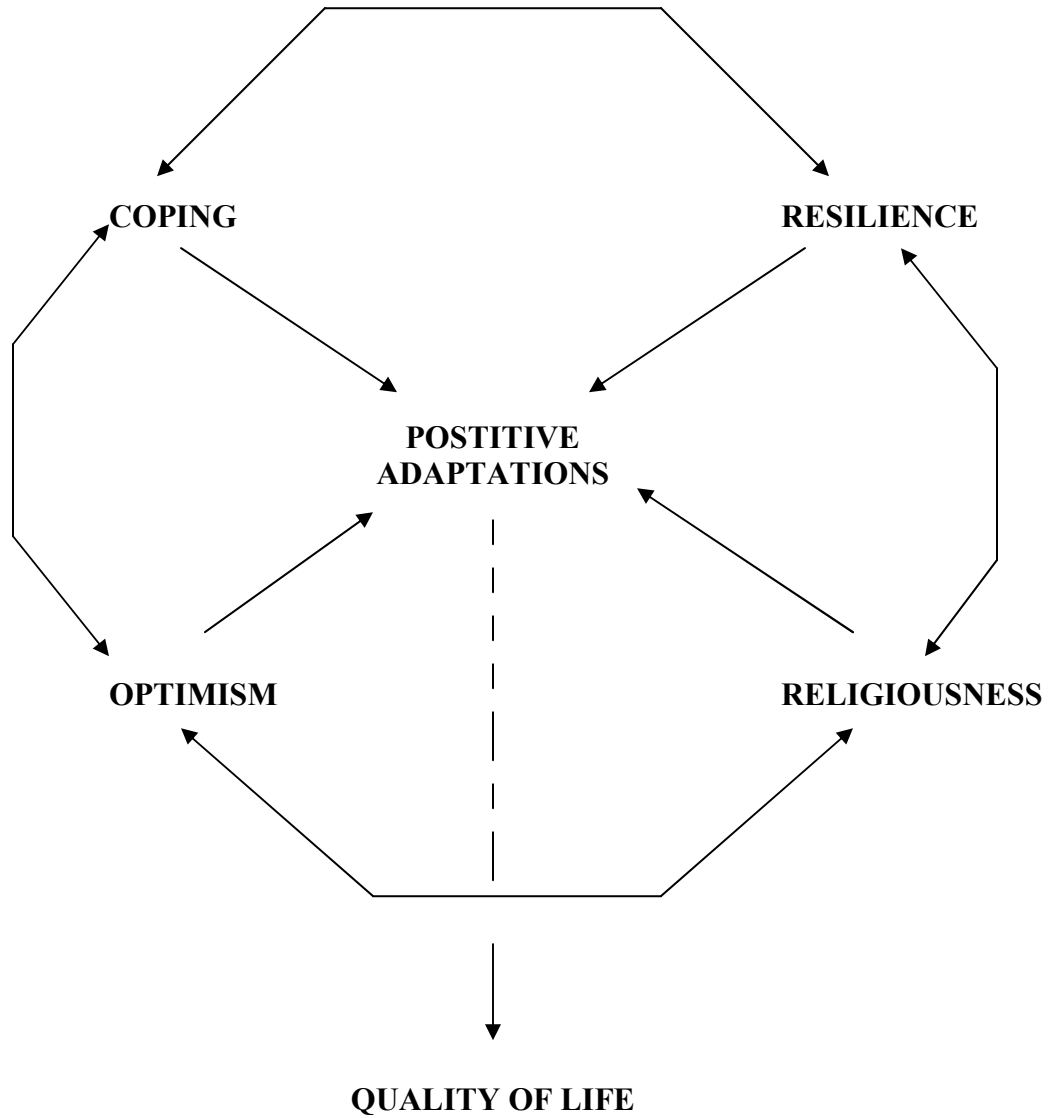
The study of coping and stress has for too long focused on the negative. It has been easy to identify the ways in which people mishandle stress, ways that lead to increased difficulties or heightened emotional distress. The challenge facing the field is to understand ways in which individuals cope to creatively solve problems, or even to prevent problems from occurring in the first place. Above all, coping must be seen as a

means for human development as well as a mechanism for defense against illness and disease. Optimism, resilience, and religiousness were three positive psychological factors that were investigated in this study, in addition to coping. The desired outcome was better psychological health as a result of improved quality of life perceptions.

Many aging African Americans, especially among the oldest-old, displayed considerable strength and resilience. In addition, coping strategies of optimism and religiousness also appeared to benefit this population in terms of both physical and mental well-being with implications for a better quality of life. As such, the findings of this literature review laid the foundation for a conceptual framework to be incorporated into the research design. The conceptual framework for this study is illustrated below (Figure 2-2). It reveals the interconnections between positive psychological factors and quality of life. Coping (Aldwin, 1994; Catherall, 2004), optimism (Grant & Higgins, 2003), resilience (Bauman, 2001), and religiousness (Ellison, Baordman, Williams, & Jackson, 2001) all individually and positively relate to improved quality of life outcomes. However, there has not been any model that incorporates all four variables collectively as one variable – in this conceptual framework it is identified as positive adaptations – to determine its effect on quality of life, especially and specifically among aging African-Americans. Positive adaptations represent how these four positive psychological factors give rise to good adaptation, adjusted development and ultimately an improved quality of life as aging women experience the stressors of life. There were several studies which provided evidence to show correspondence between some of the variables identified in the conceptual framework below.

Figure 2-2. The W.I.S.D.O.M. Wheel

THE W.I.S.D.O.M. WHEEL
WOMEN IN STRESS & THE DEMANDS ON MATURATION



Created by Candace Parker 04.11.05

Coping and Resilience

Resilience generally refers to a class of phenomena characterized by patterns of positive adaptation in the context of significant adversity. In other words, resilience is good adaptation under extenuating circumstances by meeting age-salient developmental tasks in spite of serious threats to development like poor health and disability. Poor health and disability may be considered by some to be an adverse situation. Resilience is simply one way of coping with the physiological, emotional, and social stresses of morbidity. Among the aging population, chronic illnesses such as heart disease and cancer have the highest incidence (NCHS, 2003). Several studies indicated that the ability to positively adapt to an adverse situation resulted in coping mechanisms which helped reduce stress associated with chronic conditions. For example, in one study of breast cancer patients, only two of 72 women believed they were doing somewhat worse than other women coping with breast cancer. The majority felt they were doing better (Taylor, Lichtman, & Wood, 1984). Heart disease patients (Helgeson & Taylor, 1993) and AIDS patients (Taylor, et al., 1992) also appeared to make downward comparisons to others less fortunate than themselves, with the result that they felt better about their own adjustment and potential future. The roots of resilience do not stem from obscurity. Resilience comes from operations of ordinary human systems, arising from brains, minds, and bodies, from relationships in family and community, and from schools, religions, and other cultural traditions.

Resilience and Religiousness

Religion, spirituality, and the diverse constructions of meaning held by African Americans served as sources of comfort and support. Many have searched for the good life yet were unable to find it within their current cultural milieu. Religion often is the foundation upon which disadvantaged and estranged groups of people are able to build strength and meaning. Faith, a concept promoted in religion, can be enlisted to adjust to problems when they occur and to aid in the recovery from adversity – like that of resilience. Thus, faith serves as a coping mechanism, a source of emotional and social support, and a basis for hope (Maton & Wells, 1995).

Even though people of all races and ethnicities practice religion, studies demonstrated that religious faith was enlisted in coping processes to a greater extent by some groups. Rosen (1982) found that although both impoverished African Americans and Caucasians reported practicing religion as a means of coping with everyday problems and depression, the African-American participants reported a more positive outlook on their lives than their counterparts in spite of living in objectively poorer circumstances. Rosen concluded that the African Americans seemed to use religion as a medium for finding meaning and purpose in their lives. Likewise, Blaine and Crocker (1995) found that the psychological well-being of African-American individuals (but not Caucasians) was predicted by religiosity. Religiosity (i.e. public and private religious behaviors, including meaning-enhancing attributions to God and positive social identification based on one's religious affiliation) in African-American participants was positively correlated with self-esteem and satisfaction with life and negatively correlated with depression and hopelessness.

Religiousness and Optimism

Drawing upon religion and/or spirituality may provide a person with the courage and the strength needed to cope with everyday stressors as well as life crises and ultimately live up to his or her own conventions (Burke & Miranti, 1995). Optimists are people who expect good things to happen to them. Religion plays a significant role in supporting optimistic views and expectations. Accumulating evidence suggested that religion was important in maintaining positive mental health (optimism) by helping reduce stress and enhance self-esteem (Neighbors, Jackson, Bowman, & Gurin, 1982). For example, Ai and associates (2002) conducted a study which investigated the use of private prayer among middle-aged and older patients as a way of coping with cardiac surgery and prayer's relationship to optimism. The measure of prayer included three aspects. The first was the belief in the importance of private prayer. The second was evaluating faith in the efficacy of prayer on the basis of previous experiences. The third was to understand the intention to use prayer to cope with the distress associated with surgery. The results revealed that private prayer predicted optimism, along with older age, better socioeconomic resources, and healthier affect.

Older black adults viewed the role of religion and religious institutions as multidimensional (Ellison, 1991). They also viewed its role as providing emotional/personal support and well-being in addition to spiritual guidance. As such religious beliefs and optimism may have negative consequences. For example, Mitchell (2002) investigated the effects of religious beliefs with other variables on breast cancer screening and the intended presentation of a self-discovered lump. The majority of women believed that God works through doctors to cure breast cancer. This dimension

was labeled “religious intervention with treatment.” However, a minority believed that medical treatment was unnecessary because only God could cure breast cancer. This dimension was labeled “religious intervention in place of treatment.” The second dimension, which was significantly more common in African American women who were less educated and older, correlated strongly with the intention to delay presentation of a self-discovered breast lump. In this example, religiousness and optimism did have a positive relationship because the majority believed God could cure breast cancer whether through others or by divine order.

Optimism and Coping

A growing body of work in the coping literature indicated that positive affect may help people cope with problematic situations (Aspinwall & Taylor, 1997; Taylor & Aspinwall, 1996), and this may result, at least in part, from the flexibility engendered by positive affect. Similarly, people in positive affect have been found to be less defensive (Aspinwall, 1998; Reed & Aspinwall, 1998; Trope & Pomerantz, 1998) and less likely to distort or ignore information that does not fit their preconceptions (Estrada, Isen, & Young, 1997) and to show superior coping skills and styles (Aspinwall & Taylor, 1997; Showers & Cantor, 1985; Taylor & Aspinwall, 1996). In a related finding, people relatively high in optimism and hope were known to persist more at tasks and show better management of stress than those low in optimism (Armor & Taylor, 1998; Scheier & Carver, 1992; Snyder, 1994; Taylor & Aspinwall, 1996).

Several studies described the links between optimism and coping. In a study of coronary artery bypass surgery, Scheier and colleagues (1989) assessed the uses of

attentional-cognitive strategies as ways of dealing with the experience. Before surgery, optimists more than pessimists reported they were making plans for their future and setting goals for their recovery. Optimists also tended to report being less focused on the negative aspects of the experience – their distress emotions and physical symptoms. Coping was also examined in a study of in vitro fertilization (Litt, Tennen, Affleck, Klock, 1992). Pessimism related to escape as a coping strategy. Escape, in turn, related to greater distress after the fertilization failure. Optimists also were more likely than pessimists to report they had benefited somehow from the experience, for example, by becoming closer to their spouse regardless of the fertilization outcomes.

Information regarding coping also came from a study of AIDS patients (Taylor, et al., 1992). In general optimism related to active coping strategies. Optimism predicted positive attitudes and tendencies to plan for recovery, seek information, and reframe bad situations in terms of their most positive aspects. Optimists also appeared to accept unchangeable situations rather than trying to escape them.

In sum, optimists were not people who simply stick their heads in the sand and ignore threats to their well-being. They attended to risks, but selectively. They focused on risks that were applicable to them and those related to potentially serious health problems (Apsinwall & Brunhart, 1996). If the potential health problem was minor, or if it was unlikely to bear on them, optimists did not show elevated vigilance. Only when the threat matters did vigilance emerge. Optimists appeared to scan their surroundings for threats to well-being but saved their behavioral responses for threats that were truly meaningful.

Summary

Although age is sometimes called the great equalizer, today's elders are highly diverse. Differences in income, health, and social support significantly affect older adults' quality of life. An important source of this diversity is ethnic minority status. Ethnogerontology is the study of the causes, processes, and consequences of race, national origin, and culture on individual and population aging. For most ethnic minority older adults, their resources and status reflected social, economic, and educational discrimination experienced earlier in life (Williams & Wilson, 2001). As a whole they face shorter life expectancy and increased risk of poverty, malnutrition, substandardized housing, and poor health (Burton & Whitfield, 2003), although within-group variations exist. Nevertheless, many aging African Americans, especially among the oldest-old, displayed considerable strength and resilience. In addition, the positive psychological factors of optimism and religiousness also appeared to benefit this population in terms of both physical and mental well-being with implications of a better quality of life. The findings of this literature review laid the foundation for the above comprehensive conceptual framework to be simplified into a testable experimental model which was discussed in Chapter 1 (Figure 1-1). The next chapter describes the methodology for conducting the study.

CHAPTER THREE: METHODS

Research Design

A cross-sectional survey of aging African American women was used in this study. The cross-sectional research design examines or compares characteristics of people at a given point in time and attempts to identify factors associated with contrasting characteristics of variables identified for the study (Lomax, 2001). In this study the independent variables were identified as positive psychological factors and included coping, optimism, resilience, and religiousness. The dependent variable was quality of life. In addition, socio-demographic factors were assessed as moderating variables to determine what effect they had on the strength of the relation between the positive psychological factors and quality of life.

The nonprobability sampling approaches of convenience and purposive sampling were used in this study. Recruitment efforts were made within the Baltimore metropolitan area at four senior residential centers. None were affiliated with churches. Participants were told the purpose of the study which was to understand the effect of coping, optimism, resilience, and religiousness on quality of life in aging African Americans. Only African American women 65 years of age or older living in senior residential centers were eligible for the study.

Procedures

Prior to conducting the actual study, attention was given to getting departmental and Institutional Review Board approval, selecting appropriate marketing channels, identifying recruitment sites (senior residential centers), establishing contacts at potential recruitment sites, developing recruitment tools, assembling and preparing all study

documents, as well as preparing the database software for future data entry (i.e., variable names, coding procedures, and statistical setups). The SPSS program was used for data analysis. In addition, the survey was pre-tested with a small group ($n = 4$) of participants who represented the target population (i.e., older African American women). The purpose of the pretest was to identify the actual time to complete the survey, as well as the readability and understandability of the survey. In addition, the pretest identified the preference of section order placement and addressed the qualitative component of the study (*Appendix A*).

Four senior residential centers in the Baltimore Metropolitan area were identified as recruitment sites. A listing of senior residential centers was acquired from the Maryland Department of Aging. Ten sites in Baltimore were identified and the first four contacted responded. Selection of these sites was determined by the potential to recruit large numbers of African American women. Each of the four sites that participated had occupancies of 250 residents or more.

To be included in this study, one had to identify herself as an African American woman 65 years of age or older living in a senior residential center. Once recruitment sites were identified, a phone call was made to the directors of the senior residential centers to arrange a time to meet to discuss the study. During the meeting, a description of the study was provided (*Appendix B*). Eligible participants were self identified as African American women 65 years of age or older who lived in a unit within the facility. An agreement for the researcher to conduct a workshop on a relevant health related topic as a thank you for recruitment at and use of the facility for the study was also discussed at the meeting. Once an agreement was made with the director to approach residents living

in the facility, dates were selected to distribute and collect the questionnaire at the facility at specific times. Flyers (*Appendix C*) were placed in each resident's mailbox, posted in designated areas, and distributed by the senior residential center director. Those interested in participating were invited to attend one of the available times.

The researcher was present for each of these predetermined meeting times. Serial visits (at least five) were made to each site. Upon recruitment, participants completed a written consent form indicating their willingness to participate in the study (*Appendix D*). Once consent was given, in a large room where light refreshments and water were available, participants were asked to complete the self-administered survey. Pencils were provided and the time anticipated to complete the survey was 20-25 minutes. The researcher was there to address any questions participants had while answering the survey. Participants returned the completed questionnaires to the researcher. Some of the participants were asked to answer additional questions (*Appendix E*) to provide context to the quantitative responses. Because this study dealt with human subjects, departmental and institutional Internal Review Board (IRB) approval (*Appendix F*) was obtained prior to conducting this study. Study subjects then received a thank you letter (*Appendix G*) for their participation and were invited to attend a workshop on a relevant health related topic to be given in the fall. Additionally, the researcher will return for another seminar to discuss the study findings.

Instrumentation

This section describes how each independent and dependent variable was operationally defined, measured, and provides the coding schemes used to categorize the variables. Data was acquired through a self-administered survey questionnaire (*Appendix*

H). It included six sections. Section one addressed demographic information (*items 1-5*). Section two addressed the positive psychological factor of coping (*items 6-27*). Section three addressed the positive psychological factor of optimism (*items 28-37*). Section four addressed the positive psychological factor of resilience (*items 38-62*). Section five addressed the positive psychological factor of religiousness (*items 63-67*). The last section, six, addressed the dependent variable, quality of life (*items 68-90*).

Coping Scale (COPE)

Measuring Instrument

The primary method of measuring coping is by using standardized questionnaires (Smith, Wallston, & Dwyer, 2003). The abbreviated Coping Scale (COPE) also called the Brief COPE by Carver, Scheier, and Weintraub (1989) was used to measure the independent variable of coping in this study.

The full length COPE inventory with 60 item had 15 subscales that loaded on 11 factors each of which represented distinct coping strategies. For example, planning and active coping measures tended to load together, while the two types of social support (instrumental and emotional) also tended to load together. Only one scale out of the fifteen (the mental disengagement scale) had a Cronbach's alpha below 0.6 which gave it the appearance of an index more than that of a scale (Table 3-1). This subscale was removed from the COPE inventory. Evidence concerning the test-retest reliability of the full length COPE comes from a sample of college students. Eighty-nine students completed the COPE in an initial session and again eight weeks later. The test-retest correlations for the subscales ranged from $r=.46$ to $r=.86$ over an eight week interval.

Gender differences showed that women were more likely to vent emotions and to seek social support for both instrumental and emotional reasons, while men were more likely to use alcohol or drugs (Carver, Scheier, & Weintraub, 1989).

The brief COPE scale (*Appendix I*) was created partly because earlier samples became impatient responding to the full instrument. In choosing which items to retain for the brief version, decisions were guided by strong loadings based upon the previous factor analyses and by item clarity and meaningfulness to the patients in a previous study. The brief COPE scale includes 28 items. Two items are used for each subscale for a total of 14 dimensions. The brief scale has fewer subscales since some of the subscales from the longer version were combined after testing and revising the full COPE inventory. (Carver, Scheier, & Weintraub, 1989). The subscales are computed as follows with no reversal of coding (Table 3-2).

Table 3-1: Cronbach Alpha Scores for the Brief Cope

Subscale	Items	Reliability (Cronbach's alpha)
Self-distraction	1 and 19	$\alpha = .71$
Active coping	2 and 7	$\alpha = .68$
Denial	3 and 8	$\alpha = .54$
Substance abuse	4 and 11	$\alpha = .90$
Use of emotional support	5 and 15	$\alpha = .71$
Use of instrumental support	10 and 23	$\alpha = .64$
Behavioral disengagement	6 and 16	$\alpha = .65$
Venting	9 and 21	$\alpha = .50$
*Positive reframing	12 and 17	$\alpha = .64$
Planning	14 and 25	$\alpha = .73$
Humor	18 and 28	$\alpha = .73$
*Acceptance	20 and 24	$\alpha = .57$
*Religion	22 and 27	$\alpha = .82$
Self-blame	13 and 26	$\alpha = .69$

* items overlap with other variables used in this study

Table 3-2: Items of the Brief COPE, by subscales

Subscale	Items
Self Distraction	<p>Q6. I turn to work or other activities to take my mind off things.</p> <p>Q23. I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.</p>
Active Coping	<p>Q7. I concentrating my efforts on doing something about the situation I'm in.</p> <p>Q12. I take action to try to make the situation better.</p>
Denial	<p>Q8. I say to myself "this isn't real."</p> <p>Q13. I refuse to believe that it has happened.</p>
Substance Abuse	<p>Q9. I use alcohol or other drugs to make myself feel better.</p> <p>Q16. I use alcohol or other drugs to help me get through it.</p>
Emotional Support	<p>Q10. I get emotional support from others.</p> <p>Q19. I get comfort and understanding from someone.</p>
Behavioral Disengagement	<p>Q 11. I give up trying to deal with things.</p> <p>Q20. I give up attempting to cope.</p>

Table 3-2: Items of the Brief COPE, by subscales (continued)

Venting	<p>Q14. I say things to let my unpleasant feelings escape.</p> <p>Q22. I express my negative feelings.</p>
Instrumental Support	<p>Q15. I get help and advice from other people.</p> <p>Q 24. I try to get advice or help from other people about what to do.</p>
Self Blame	<p>Q17. I criticize myself.</p> <p>Q26. I blame myself for things that happened.</p>
Planning	<p>Q 18. I try to come up with a strategy about what to do.</p> <p>Q25. I think hard about what steps to take.</p>
Humor	<p>Q21. I make jokes about it.</p> <p>Q27. I make fun of the situation.</p>

A convenience sample of 168 adults participating in a study of the process of recovery after Hurricane Andrew was used to develop the Brief COPE scale (Carver, 1997). An effort was made to ensure diversity of ethnicity and socioeconomic status. The sample was approximately 66 percent female with a substantial number of African Americans (34%). The initial data collection period took place three and six months post-hurricane. Six months later, 124 participants completed the second assessment. A

third assessment took place one year later, with 126 persons participating. All three assessments were used to evaluate the reliability of the scales.

The alpha reliabilities averaged across the three administrations of the Brief COPE are indicated in Table 3-1. Even though the scales have two items each, their reliabilities all meet or exceed the value of .50 regarded as minimally acceptable (Nunnally, 1978). Except for Venting, Denial, and Acceptance, all exceed a value of .60. Thus, these data are supportive of the internal reliability of the abbreviated scales.

The Brief COPE provides researchers a way to assess potentially important coping responses quickly and is intended to foster a wider examination of coping in naturally occurring settings. To this end, one of the Brief COPE authors, Charles Carver, makes this statement:

First, as was true of the original COPE inventory, the instrument need not be used in an all-or-none fashion. Researchers who have very focused interests, or who have extreme time demands, can selectively use the scales that are of greatest interest in their samples. Second, as also was true of the original COPE, the items can be potentially used in many ways...However, the flexibility of application of the items is determined by the needs and imagination of the researcher who is using them. (Carver, et al., 1997, p.99)

As such, for the purpose of this research, items that appear to overlap with the other variables of investigation – optimism, resilience, and religiousness – were excluded from the final survey instrument used for the study. Rather than having 14 dimensions, 11 were used. Items deleted were 12, 17, 20, 22, 24, and 27. In Table 3-1, the items that were excluded are indicated with an asterisk.

Coding Scheme

The standardized coding scheme of the brief COPE scale was used. The following original Brief COPE items 1-11, 13-16, 18, 19, 21, 23, 25, 26, and 28 (*Appendix I*) were used in the final survey instrument of this study (*Appendix H, questions 6-27*). There was no total coping score only subscale totals. Potential scores for each subscale ranged from two to eight. The higher the score the more the subject used that coping strategy.

Table 3-3: The Brief COPE Scale Items (*Excerpt, Appendix H*)

Answer choices:

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

		Not at all (1)	A Little (2)	Medium (3)	A Lot (4)
6.	I turn to work or other activities to take my mind off things.	1	2	3	4
7.	I concentrating my efforts on doing something about the situation I'm in.	1	2	3	4
8.	I say to myself "this isn't real."	1	2	3	4
9.	I use alcohol or other drugs to make myself feel better.	1	2	3	4
10.	I get emotional support from others.	1	2	3	4
11.	I give up trying to deal with it.	1	2	3	4
12.	I take action to try to make the situation better.	1	2	3	4
13.	I refuse to believe that it has happened.	1	2	3	4
14.	I say things to let my unpleasant feelings escape.	1	2	3	4
15.	I get help and advice from other people.	1	2	3	4
16.	I use alcohol or other drugs to help me get through it.	1	2	3	4

Table 3-3: The Brief COPE Scale Items (*Excerpt, Appendix H*) (continued)

		Not at all (1)	A Little (2)	Medium (3)	A Lot (4)
17	I criticize myself.	1	2	3	4
18	I try to come up with a strategy about what to do.	1	2	3	4
19	I get comfort and understanding from someone.	1	2	3	4
20	I give up attempting to cope.	1	2	3	4
21	I make jokes about it.	1	2	3	4
22	I express my negative feelings	1	2	3	4
23	I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
24	I try to get advice or help from other people about what to do.	1	2	3	4
25	I think hard about what steps to take.	1	2	3	4
26	I blame myself for things that happened.	1	2	3	4
27	I make fun of the situation.	1	2	3	4

Optimism Scale

Measuring Instrument

The revised Life Orientation Test (LOT) by Scheier, Carver & Bridges (1994) is the Optimism Scale that was used to measure the independent variable of optimism. Initially, 16 items were written and administered to a group of 81 undergraduate men and 69 undergraduate women. Although the initial version of the scale proved to be fairly uniform with respect to the properties it measured, with each revision, the scale became more uniform. The revised LOT is a ten item measure of dispositional optimism that focuses exclusively on the assessment of general outcome expectancies (Scheier, Carver,

& Bridges, 1994) (*Appendix J*). The scale was normed with 2,055 undergraduates from Carnegie Mellon University, over three academic calendar years from fall 1990 to spring 1991. A Cronbach's alpha of .76 indicated a strong internal consistency. Using a separate sample of 142 respondents, the test-retest correlations indicated the LOT scale was relatively stable over time with a correlation of $r=.79$ over a four week interval.

To establish convergent and divergent validity, LOT was given to several groups of undergraduates, along with a number of different scales. Included among these other scales were a measure of internal-external control (Rotter, 1966), a Self-Esteem Scale (Rosenberg, 1965), Beck's Depression Inventory, BDI (Beck, 1967) and a measure of perceived stress (Cohen, Karmarck, & Mermelstein, 1983). Table 3-4 illustrates the correlations between LOT and these scales.

Table 3-4: Convergent and Divergent Validity of the LOT

	LOT
Internal-External Control	.34 (N = 320)
Self-Esteem	.48 (N = 324)
Depression	-.49 (N = 322)
Perceived Stress	-.55 (N = 140)

* $p < 0.01$ (two-tailed)

The findings above indicate that the LOT correlated in the appropriate direction with conceptually related scales. In addition to direction, strength of the relationships is important. The strength of these relationships was not too strong, suggesting that the magnitude of the correlations did not appear to be completely redundant with the other measures that were collected. These results supported the convergent and divergent validity of the scale.

Coding Scheme

Of these ten items, seven were keyed in a positive direction, and three were keyed in a negative direction. Respondents were asked to indicate the extent to which they agree with each of the items, using the following response format: 4 = *strongly agree*, 3 = *agree*, 2 = *neutral*, 1 = *disagree*, and 0 = *strongly disagree*. Scores range from 0 to 40. The higher score means the respondent was more optimistic. Additional instructions cautioned respondents to be as accurate as they could throughout and to try not to let their answer to one question influence their answer to other questions. They were explicitly told that there were no correct or incorrect answers. All negatively worded items were reversed prior to scoring.

Table 3-5: Optimism Scale Items (*Excerpt, Appendix H*)

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27.	In uncertain times, I usually expect the best.	0	1	2	3	4
28.	It's easy for me to relax.	0	1	2	3	4
29.*	If something can go wrong for me, it will.	0	1	2	3	4
30.	I'm always optimistic about my future.	0	1	2	3	4
31.	I enjoy my friends a lot.	0	1	2	3	4
32.	It's important for me to keep busy.	0	1	2	3	4
33.*	I hardly ever expect things to go my way.	0	1	2	3	4
34.	I don't get upset too easily.	0	1	2	3	4

Table 3-5: Optimism Scale Items (*Excerpt, Appendix H*) (continued)

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35.*	I rarely count on good things happening to me.	0	1	2	3	4
36.	Overall, I expect more good things to happen to me than bad.	0	1	2	3	4

* These items were reversed prior to scoring

Resilience Scale

Measuring Instrument

The Resilience Scale (RS) by Wagnild and Young (1987) was used to measure the independent variable of resilience. This scale measured self-competence and acceptance of self by evaluating life satisfaction, morale, depression, and self-reported health. The 25-item instrument measured resilience on a seven point scale, with response ratings ranging from 1 = “disagree” to 7 = “agree” (*Appendix K*). Resilient individuals should score higher in life satisfaction, morale, reported health, and lower in depression. Scores ranged from 25 to 175, with higher scores reflecting more resilience (Wagnild & Young, 1993).

Eight questions (question numbers 7, 8, 11, 12, 16, 21, 22, and 25) represented acceptance of self and life by indicating adaptability, flexibility, and a balanced perspective of life (*Appendix K*). The remaining seventeen items measured self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance, which represent personal competence (Wagnild & Young, 1990).

The resilience scale (1987) was derived from a qualitative study of older women who had successfully adjusted to a personal loss. In initial pretesting of the scale (N=39), a Cronbach’s alpha of 0.89 indicated high internal consistency among the 25 items.

Since then, the Resilience Scale has been used in other studies including those involving graduate students (Colley, 1990; Klaas, 1989) and first-time mothers returning to work (Killian & Jarrett, 1993). Further psychometric evaluation of the RS was done with a larger, randomly selected sample of community dwelling adults aged 53-95 years (N=810). The results revealed a mean score of 148 (SD = 16.85) and showed high internal consistency with a Cronbach's alpha of 0.91(Wagnild & Young, 1993).

To establish convergent and divergent validity the RS was given to several population groups, along with a number of different scales. Included among these other scales was a measure of life-satisfaction (Neugarten, Havighurst & Tobin, 1961), a Self-Esteem Scale (Rosenberg, 1965), Beck's Depression Inventory, BDI (Beck & Beck, 1972) and a measure of perceived stress (Cohen, Karmarck, & Mermelstein, 1983).

Table 3-6 illustrates the correlations between the RS and these scales.

Table 3-6: Convergent and Divergent Validity of the RS

	Correlation	P Value	Sample
Life Satisfaction	.59	p < .001, 2-tailed	(N = 43) Public housing resident
Self-Esteem	.57	p < .01, 2-tailed	(N = 130) First time mothers
Depression	-.37	p < .01, 2-tailed	(N = 130) First time mothers
Perceived Stress	-.67	p < .001, 2-tailed	(N = 58) Female graduate students

According to the findings above, the RS correlated in the appropriate direction with conceptually related scales. The strength of the relationships was also important. The magnitude of the correlations did not appear to be completely redundant with the other

measures that were collected because the strength of these relationships was not too strong. This result supported the convergent and divergent validity of the RS scale.

Coding Scheme

The standardized coding scheme of the Resilience scale was used as the coding scheme in this study (Table 3-7). Some of the items on the study questionnaire represented personal competence/confidence (*Appendix H, items 38-43, 46, 47, 50, 51, 52, 54, 55, 56, 57, 60, and 61*). Other items on the study survey represented acceptance of self (*Appendix H, items 44, 45, 48, 49, 53, 58, 59, and 62*). All the items were summed and evaluated together. When interpreting results, no subscales were used. As such, the total scale score ranged from 25 to 175, with higher scores reflecting more resilience.

Table 3-7: Resilience Scale Items (*Except, Appendix H*)

		Disagree			Neutral		Agree	
		(1)			(4)			(7)
38.	When I make plans I follow through with them.	1	2	3	4	5	6	7
39.	I usually manage one way or another.	1	2	3	4	5	6	7
40.	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
41.	Keeping interested in things is important to me.	1	2	3	4	5	6	7
42.	I can be on my own if I have to.	1	2	3	4	5	6	7
43.	I feel proud that I have accomplished things in my life.	1	2	3	4	5	6	7
44.	I usually take things in stride.	1	2	3	4	5	6	7
45.	I am friends with myself.	1	2	3	4	5	6	7
46.	I feel that I can handle many things at a time.	1	2	3	4	5	6	7
47.	I am determined.	1	2	3	4	5	6	7
48.	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
49.	I take things one day at a time.	1	2	3	4	5	6	7
50.	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
51.	I have self-discipline.	1	2	3	4	5	6	7
52.	I keep interested in things.	1	2	3	4	5	6	7
53.	I can usually find something to laugh about.	1	2	3	4	5	6	7
54.	My belief in myself gets me through hard times.	1	2	3	4	5	6	7

Table 3-7: Resilience Scale Items (*Except, Appendix H*) (continued)

		Disagree			Neutral	Agree		
		(1)	2	3	(4)	5	6	(7)
55.	In an emergency, I'm someone people generally can rely on.	1	2	3	4	5	6	7
56.	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
57.	Sometimes I make myself do thing whether I want to or not.	1	2	3	4	5	6	7
58.	My life has meaning.	1	2	3	4	5	6	7
59.	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
60.	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
61.	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
62.	It's okay if there are people who don't like me.	1	2	3	4	5	6	7

Religiousness Questionnaire

Measuring Instrument

The Duke Religion Index (DRI) is the Religiousness questionnaire by Koenig (1997) that was used to measure the independent variable of religiousness (*Appendix L*). The DRI is a five item scale that measures three aspects of religious involvement: public or organizational religious behavior (e.g., church attendance), private or non-organizational religious behavior (e.g., prayer or meditation), and intrinsic religious motivation (e.g., involvement of religion in all of one's dealings in life). Two items assess attendance at religious activities using a six-point scale where scores range from 1= "never" to 6= "2-3 times per week" (Table 3-8). The other three items concern non-organized religion and spiritual beliefs and are scored on a five-point scale where scores range from 1 = "Definitely Not True" to 5= "Definitely True." Scores ranged from 5 to 27 with higher scores reflecting greater religiousness.

The five-item subscale had a Cronbach's alpha of 0.75 and was strongly correlated ($r=.85$) with the original 10-item scale. Moderate to high correlations with other measures of religiousness such as the Age Universal Religious Scale and Santa

Clara Strength of Religious Faith showed evidence of convergent validity (Sherman, 2000). The DRI has typically been used to evaluate religiosity among cancer patients and was normed using a sample of 104 cancer patients with a mean of 11.56 (SD = 5.75). A limitation of the study was that most of the sample was white and Protestant or Catholic; it failed to include ethnic populations.

Coding Scheme

The standardized coding scheme of the Religiousness scale was used in this study (Table 3-7). Questions 63 and 64 represented the quantitative component of religiousness. Questions 65-67 represented the qualitative component of religiousness.

Table 3-8: Religiousness Scale Items (*Except, Appendix H*)

	Never	Once/ Year	2-3 times/ year	2-3 times/ month	Once/ week	2-3 times/ week
63. How often do you attend church, synagogue, or other religious meeting?	1	2	3	4	5	6
64. How often do you spend time in private religious activities, such as prayer, meditation, or Bible study?	1	2	3	4	5	6
	Definitely Not True	Somewhat Not True	No Difference	Somewhat True	Definitely True	
65. In my life, I experience the presence of the Divine.	1	2	3	4	5	
66. My religious beliefs are what really lie behind my whole approach to life.	1	2	3	4	5	
67. I try hard to carry my religion over into all other dealings in life.	1	2	3	4	5	

Quality of Life Questionnaire

Measuring Instrument

The quality of life construct is complex. It is perhaps not surprising that there is neither an agreed definition of quality of life nor a standard form of measurement. This is not due to a lack of ideas. Cummins (1996) has recorded over 100 instruments which purport to measure life quality in some form, but each one contains an idiosyncratic mixture of constructs. The Quality of Life Scale by Cummins (1997) was used to measure the dependent variable quality of life (QOL) in this study (*Appendix M*). This scale has been designed in parallel forms suitable for any population subgroup (i.e., those with intellectual disability or other forms of cognitive impairment and adolescents 11-18 years who are attending school). The one that was used in this study was the scale developed for the general adult population.

The Quality of Life Scale (QOL) incorporates a contemporary understanding of the quality of life construct. As such, it was multidimensional. There is consensus within the field that the most useful measures of life quality must incorporate the separate components which comprise this construct, even though the precise nature of these components is somewhat conjectural (Felce & Perry, 1995). Quality of life defined life quality in terms of seven domains which together were intended to be inclusive of all QOL components (Cummins, 1996). These domains include material well being, health, productivity, intimacy, safety, community, and emotional well-being.

The scale addressed each of the seven domains. Each domain contained three items. The coding scheme is described in detail below. The measurement of each domain was achieved by obtaining an aggregate score based on the measurement of three

objective indices relevant to that domain. For example, “material well-being” was measured by an aggregate score of income, type of accommodation and personal possessions. The scores for each domain ranged from 3-15. The entire scale range was from 21-105. The total scale score is used to determine quality of life. The higher score represented a better quality of life.

The scale was also psychometrically sound. It was found to be reliable, stable, and valid. It was normed using a random adult population (N=794) with a Cronbach’s alpha of 0.64 and mean score of 75 (SD = 2.5). Test-retest stability reliability indicated that this scale was relatively stable over time ($r=.86$) after a two week interval (Cummins, Fogarty, McCabe, & Hammond, 1995).

The content validity was supported by Cummins publications (1995, 1996) which brought together previously published studies on overall life satisfaction. Cummins (1996) demonstrated that, of many quality of life domain names drawn from the literature, 68 percent of the names and 83 percent of the data they represented could be grouped under the seven domains of this scale. Moreover, when the data grouped under the seven domains were combined, they yielded a mean score of 73.6 (SD = 2.5). From this it was concluded that content validity had been established and also that the data derived from the seven domain scores could be compared against this scale’s normative mean score of 75. Moderate to high correlations with other measures of quality of life such as the Nottingham Health Index ($r=.88$, N=111) (Hunt, McEwen, & McKenna, 1986), the Sense of Orientation Questionnaire with an elderly sample ($r=.52$, N=105) (Antonovsky, 1987), and the Short Form Health survey ($r=.60$, N= 152) (Ware & Sherbourne, 1992) showed evidence of convergent validity.

Coding Scheme

The standardized coding scheme of the Quality of Life scale (QOL) was used in this study (*Appendix H, questions 68-88*). Table 3-9 is a detailed coding scheme of the Quality of Life scale items in the seven domains.

Table 3-9: The Coding Scheme for the Quality of Life Scale

		<u><i>Material Well-Being</i></u>			
68	Accommodation				
	house + own	=5			
	apartment + own	=4			
	house + rent	=3			
	apartment + rent	=2			
	room + either	=1			
69	Possessions				
	More than almost anyone	=5	Less than most people	=2	
	More than most people	=4	Less than almost anyone	=1	
	About average	=3			
70	Estimated income				
	More than \$56,000	=5	\$11,000 - \$25,999	=2	
	\$41,000 - \$55,999	=4	Below \$10,999	=1	
	\$26,000 – \$40,999	=3			
		<u><i>Health</i></u>			
71	Doctor Visit in past 3 months				
	None	=5	5-7	=2	
	1-2	=4	8 or more visits	=1	
	3-4	=3			
72	Disability or medical condition				
	5 =	No disability			
	4 =	Minor disability			
	3 =	Constant, chronic condition that interferes to some extent with daily life (e.g. diabetes, heart condition, Alzheimer’s disease, migraines, infertility, asthma when nothing is recorded under medication, arthritis when nothing is recorded under medication)			
	2 =	Disability likely to restrict social activities (e.g. profound deafness, blindness, significant physical disability, depression, schizophrenia, arthritis, Parkinson’s disease, paraplegia, asthma needing regular medication, arthritis needing regular medication, limb missing)			

1= Major disability likely to require daily assistance with personal care (e.g. severe psychiatric condition, advanced multiple sclerosis, severe cognition or physical impairment, quadriplegia)

73 Medication

5= No regular medication
 4= Single non-psychotropic medication
 3= Multiple non-psychotropic medication
 2= Psychotropic medication
 1= Psychotropic plus non-psychotropic medication

Productivity

74 Work, Education, Child Care

31-40+ work, education or child care	=5
21-30 hours combined work/education/child care	=4
11-20 hours combined work/education/child care	=3
1-10 hours combined work/education/child care	=2
Neither work nor education nor child care	=1

75 Spare time (nothing to do)

Almost always	=1	Not usually	=4
Usually	=2	Almost never	=5
Sometimes	=3		

76 Hours TV each day

None	=5	6-9 hours	=2
1-2 hours	=4	10+ hours	=1
3-5 hours	=3		

Intimacy

77 Talk with close friend

Daily	=5	Once a month	=2
Several	=4	Less than once a month	=1
Once a week	=3		

78 Home

Almost always	=5	Not usually	=2
Usually	=4	Almost never	=1
Sometimes	=3		

79 Activity

Almost always	=5	Not usually	=2
Usually	=4	Almost never	=1
Sometimes	=3		

Safety

80 Sleep Well

Almost always	=5	Not usually	=2
Usually	=4	Almost never	=1
Sometimes	=3		

81	Safe at Home			
	Almost always	=5	Not usually	=2
	Usually	=4	Almost never	=1
	Sometimes	=3		

82	Anxiety			
	Almost always	=1	Not usually	=4
	Usually	=2	Almost never	=5
	Sometimes	=3		

Place in Community

- 83 (Leisure) Activities**
- (i) For each separate activity calculate $0.2 + (0.2 \times \text{frequency})$ for each activity up to a maximum frequency of 4/month. i.e. Each activity is scored to a maximum of 1.0.
- (ii) Aggregate the total scores across all activities up to a maximum of 5 activities. Round all fractions to the nearest integer, i.e. the maximum score possible is 5.

- 84 Responsibility**
- 5= Chairperson, president
 4= Treasurer, secretary or other title denoting specific major area of responsibility
 3= Committee chairperson or other indication of minor area of responsibility or active involvement
 2= Committee member
 1= None

85	How often do others ask for your advice			
	Almost every day	=5	Not often	=2
	Quite often	=4	Almost never	=1
	Sometimes	=3		

Emotional Well-being

86	Can do			
	Almost always	=5	Not usually	=2
	Usually	=4	Almost never	=1
	Sometimes	=3		

87	Wish to stay in Bed			
	Almost always	=1	Not usually	=4
	Usually	=2	Almost never	=5
	Sometimes	=3		

88	Wishes (that can't come true)			
	Almost always	=1	Not usually	=4
	Usually	=2	Almost never	=5
	Sometimes	=3		

Data Analysis Plan

Variables of Interest

The independent variables in this study included the positive psychological factors of coping, optimism, resilience, and religiousness. The dependent variable was quality of life. Specific socio-demographic factors were also of interest. They included education, employment, and marital status. Gender, age, living arrangement, and race/ethnicity were predetermined as inclusion criteria for the study.

Analysis of Variables

Univariate Analysis

Descriptive statistics and frequency analyses were performed on the variables. The procedures that were used in univariate analyses for this study included identifying missing data and outliers, performing descriptive statistics, comparing measures of central tendency for each variable, and determining the skewness. Others included visually assessing the distribution, examining the frequency responses for survey items, and interpreting the composite scores of coping, optimism, resilience, religiousness, and quality of life.

Bivariate Analysis

Correlational analyses were also conducted to examine the bivariate relationship between continuously distributed measures. The assumptions were that there was normality, equal variance, and a linear association among the variables. For continuous variables, the Pearson's correlation coefficient (r) was used.

Procedures used in bivariate analyses for this study included producing and tabulating cross-tabulations with each socio-demographic variable (education, marital status, and employment status) and the independent variables (positive psychological factors), producing and tabulating cross-tabulations with socio-demographic variables and the dependent variable (quality of life), and producing and tabulating cross-tabulations with each independent variable (positive psychological factors) and the dependent variable (quality of life). The independent variables found to be significant in cross-tabulations were later examined in linear regression model building.

Multivariate Analysis

Multiple regression analysis applies both to the individual variables (independent and dependent) and to the relationship as a whole. In this study, quality of life was used as the dependent variable in a linear regression where the positive psychological factors were used as the predictor variables, while controlling for the socio-demographic measures. The confirmatory perspective was the approach used for specifying the regression model because the set of independent variables (coping, optimism, resilience, and religiousness) were completely specified at the onset of the research.

In multiple regressions, once the variate has been derived, it acts collectively in predicting the dependent variable. As a result, several assumptions for the individual variables and the variates were assessed. Four assumptions were examined: the linearity of the phenomenon, the constant variance of the error terms, the independence of the error terms, and the normality of the error term distribution (Darlington, 1990).

The linearity of the relationship between dependent and independent variable represents the degree to which the change in the dependent variable is associated with the

independent variable. This assumption was examined through residual plots. The presence of unequal variances (heteroscedasticity) was also examined using residual plots. Another assumption was that in regression each predicted value was independent, meaning that the predicted value is not related to any other predictors. This assumption was examined by plotting the residuals against any possible sequencing variable. Finally, the normality of the error term distribution was evaluated by visually examining the histogram of residuals for normal distribution characteristics (Babbie, 1995).

In order to examine the significance of linear regression, one must evaluate the statistics linear regression produces. These statistics include the Beta coefficient (β) and measuring the degree and impact of multicollinearity, more specifically evaluating tolerance and the variance inflation factor (VIF). The beta coefficient (β) is the standardized regression coefficient that allows for a direct comparison between coefficients as to their relative explanatory power of the dependent variable. The measures of multicollinearity identify the degree to which each independent variable is explained by the other independent variables. Tolerance is the amount of variability of the selected independent variable not explained by the other independent variables. Thus very small tolerance values and large VIF values denote high collinearity. The standard SPSS tolerance value was used in these analyses.

Procedures for Data Analysis

The following paragraphs describe the procedures used to answer the study hypotheses. SPSS was used for all analyses. The primary purpose of this study was to examine the association between quality of life and four positive psychological variables.

Hypothesis 1a. Coping will be positively correlated with quality of life.

Hypothesis 1b. Optimism will be positively correlated with quality of life.

Hypothesis 1c. Resilience will be positively correlated with quality of life.

Hypothesis 1d. Religiousness will be positively correlated with quality of life.

Hypotheses 1a through 1d were tested by first conducting a series of bivariate analyses using cross-tabulations with each positive psychological variable by the dependent variable. Correlations were interpreted to determine which positive psychological variables were significantly related to quality of life.

Hypothesis 2a. Socio-demographic factors will be positively correlated with coping.

Specifically,

- (4) Those with higher levels of education will have better coping skills.
- (5) Those who are married will have better coping skills.
- (6) Those who are employed will have better coping skills.

Hypothesis 2b. Socio-demographic factors will be positively correlated with optimism.

Specifically,

- (4) Those with higher levels of education will be more optimistic.
- (5) Those who are married will be more optimistic.
- (6) Those who are employed will be more optimistic.

Hypothesis 2c. Socio-demographic factors will be positively correlated with resilience.

Specifically,

- (4) Those with higher levels of education will be more resilient.
- (5) Those who are married will be more resilient.
- (6) Those who are employed will be more resilient.

Hypothesis 2d. Socio-demographic factors will be positively correlated with religiousness. Specifically,

- (4) Those with lower levels of education will be more religious.
- (5) Those who are married will be more religious.
- (6) Those who are retired will be more religious.

Hypotheses 2a through 2d were tested by first conducting a series of bivariate analyses using cross-tabulations with each socio-demographic variable by the positive psychological factors. Correlations were interpreted to determine which socio-demographic variables (marital status, employment status, and education) were significantly related to positive psychological factors.

Hypothesis 3: All four positive psychological factors will be predictors of quality of life.

Hypothesis three was tested by conducting a multiple linear regression.

Summary

The purpose of this study was to examine the association between positive psychological factors and quality of life among African American women aged 65 and older. This study also examined how socio-demographic factors influenced quality of life in this sample. This chapter provided an overview of the research design, sample, instrumentation, and statistical methods used in the study. Data analyses were conducted using the SPSS program. Results from the data analyses are presented in Chapter Four.

CHAPTER FOUR: RESULTS

In chapter four survey findings are described and study results are presented as follows: 1) description of the sample and variables, 2) correlational analyses of the variables, 3) multiple regression analyses of variables in the quality of life model, and 4) hypotheses findings.

The nonprobability sampling approaches of convenience and purposive sampling were used in this study. Recruitment efforts were made within the Baltimore metropolitan area at four senior residential centers. Senior residential centers are places where senior citizens aged 55 years and older live. They select a place of residence within the facility such as an apartment, or condominium; and they have access to meals, activities, transportation, and when needed professional health services. Three of the centers were within the Baltimore city limits and one was in Baltimore County. All four of the facilities were independently and privately owned by a company. None were affiliated with churches. The average price ranged from \$150,000 to occupy one bedroom unit to \$240,000 to occupy a two bedroom unit. The monthly fee ranged from \$1,500 to \$1,600. These fees covered all the utilities, cable television, an activities resource room, 24 hour emergency health care service with a physician on-call, provision of local transportation for shopping, doctor visits, events, etc. using the senior residential center transportation van, and one meal per day. Once an occupant left, the unit was made available to someone else.

Only African American women 65 years of age or older living in senior residential centers were eligible for the study. Collectively, the four sites housed 1,090 seniors (Table 4-1). Three hundred study descriptions letters were given to the residential

directors at each of the four facilities. However, the residential directors at the four sites could verify that study letters was delivered to each resident. Therefore, it is possible that residents only knew of the study from flyers placed throughout the facility. Of the 1,090 seniors, approximately 70 percent (N =763) were African American and approximately 65 percent of this population were African American women (N = 496). A total of 182 African American women participated in this study, indicating a response rate of 37 percent.

It is important to note that the age range for people living in these centers was 55 years of age and older; the specific number of African American women aged 65 and older at all four facilities was 372. Therefore, the response rate of 37 percent may be an inaccurate reflection. Seventy-five percent of the number of African American females (N=496) were 65 years of age and older, indicating a response rate of 49 percent.

Table 4-1 Facility Site Information

Facility	Number of Senior Residents	Number of African American Women	Number of Study Participant
One	278	93	42
Two	267	82	53
Three	256	95	47
Four	289	102	40
Total	1090	372	182

Descriptive Statistics and Frequencies of the Positive Psychological Variables

Sample Characteristics

One hundred and eighty-two (N = 182) women participated in the study. Each participant was asked where she was born to identify if she was African American. All but one woman (who was born in Jamaica but had lived in the U.S. for 80 years) stated they were born in the United States. One was born in Jamaica. The age range was 65 to

94 years with a mean age of 71.8 years (SD = 5.6). In terms of age categories, 69 percent (N = 126) were in the young-old category, 23 percent (N = 42) in the old-old category, and nearly eight percent (N = 14) in the oldest-old category. The majority (53.1%) of participants completed high school, with 23 percent (N = 42) obtaining college degrees and 19 percent (N = 35) holding advanced degrees. Nearly 58 percent of participants were widowed and 81 percent were retired (Table 4-2).

Coping

The brief COPE scale included 22 items; two items were used for each subscale for a total of 11 dimensions (Table 4-3). Scale items have to do with potential coping strategies respondents may use when dealing with a great deal of stress. Respondents were asked to describe what they usually do when they are under a great deal of stress. Scores ranged from one “I usually do not do this at all” to four “I usually do this a lot.” Composite scores ranged from two to eight for each subscale.

Regarding internal consistency reliability, six of the eleven subscales met or exceeded the value of .50 regarded as minimally acceptable (Table 4-3). The subscale of emotional support ($\alpha = .46$) was close to meeting this standard. The subscales intended to measure substance abuse ($\alpha = .32$), venting ($\alpha = .35$), instructional support ($\alpha = .18$), and humor ($\alpha = .23$) were found not to be internally consistent in this sample.

Table 4-2 Sample Characteristics

Categorical Variables		N (%)
<u>Education</u>		
	Elementary	7 (3.8)
	High School	98 (53.1)
	4 years of College	42 (23.1)
	Graduate School	35 (19.2)
<u>Marital Status</u>		
	Married	28 (15.4)
	Widowed	105 (57.7)
	Divorced	35 (19.2)
	Single, Never Married	14 (7.7)
<u>Employment Status</u>		
	Employed	0
	Unemployed	7 (3.8)
	Retired	146 (80.3)
	Volunteer	21 (11.5)
	Retired and Volunteer	8 (4.4)
<u>Age Categories</u>		
	Young-old (65-74)	126 (69.6)
	Old (75-84)	41 (22.7)
	Oldest-old (85 +)	14 (7.7)
Continuous Variable		
<u>Age</u>	Range	(65-94)
	Mean	71.8
	SD	4.59

Of the subscales, planning, active coping, and distance coping had the highest mean scores of 5.96 (SD = 1.77), 5.81 (SD = 1.57), and 5.35 (SD = 1.55) respectively. These findings suggested these were the coping dimensions preferred among the women in this study (Table 4-3). Coping strategies used less often were substance abuse, behavioral disengagement and humor. They had the lowest mean scores of 2.23 (SD = .58), 3.23 (SD = 1.22), and 3.46 (SD = .89) respectively.

Table 4-3 Descriptive Statistics for the Brief COPE Scales

Subscales	Scale Range	Mean	SD	Cronbach's Alpha (α)
Denial	(2-8)	4.23	1.58	.50
Self Distraction	(2-8)	5.35	1.55	.60
Active coping	(2-8)	5.81	1.57	.67
Substance abuse	(2-8)	2.23	0.58	.32
Emotional support	(2-8)	4.92	1.24	.46
Behavioral disengagement	(2-8)	3.23	1.22	.54
Venting	(2-8)	4.42	1.34	.35
Instrumental support	(2-8)	4.65	1.08	.18
Self blame	(2-8)	3.88	1.25	.58
Planning	(2-8)	5.96	1.77	.75
Humor	(2-8)	3.46	0.89	.23

Frequencies

Appendix N describes how respondents rated each item regarding their perceptions about coping with stress. More than 46 percent used self distraction a little bit of the time when dealing with a stressful situation. In terms of active coping, nearly 40 percent concentrated their efforts on doing something about the situation a medium amount of the time whereas 39 percent chose to take action to make the situation better a little bit or a lot of the time. As for denial, 50 percent or more did not use this coping mechanism at all. Substance abuse was a coping mechanism rarely used. At least 90 percent responded with “Not at all” when asked if alcohol or drugs were used to make them feel better or get through a stressful situation. Use of emotional support was minimal. More than 55 percent responded that they get no or only a little emotional support, comfort or understanding from others. Behavioral disengagement was another

coping mechanism that was not used by most participants. Fifty percent or more responded with “Not at all” when asked if they give up trying to cope or deal with stress.

A majority of participants responded that they use venting a little bit to deal with stress. Use of instrumental support and self blame, like venting, were also used only a little bit. More than 55 percent gave the response of “a little bit” when asked if they seek help or advice from others in stressful times; and when asked if they criticize or blame themselves for things that happen.

Planning was used more frequently among study participants. Thirty-eight percent indicated they come up with a strategy or think hard about steps to take when dealing with stress a lot of the time, whereas 35 percent said they did this a “medium” amount of the time. Finally, the dimension of humor was not used at all or only a little bit to handle stressful situations with more than 85 percent of respondents falling into these categories when asked if they made jokes or made fun of the situation.

Optimism

The optimism score ranged from 0 to 40 and scores ranged from 15 to 35 in this sample. A higher score indicated the respondent was more optimistic. It appears as if participants were somewhat optimistic with a mean score of 27.31 (SD = 4.38). The mean score for this sample was lower when compared with the mean score of 31.76 (SD = 3.49) for the normative data. Cronbach’s alpha for optimism ($\alpha = .59$) in this sample was found to be lower than that of the Scheier, Carver & Bridges (1994) study sample ($\alpha = .76$), but still met the minimum criteria for reliability (Murphy & Davidshofer, 2001) (Table 4-4).

Table 4-4 Descriptive Statistics for Optimism, Resilience, Religiousness, and Quality of Life Scales

Scale	# of Items	Scale Range	Median	Mean (SD)	Cronbach's Alpha (α)
Optimism	10	0-40	25	27.31 (4.38)	.59
Resilience	25	25-175	145	148.77 (11.10)	.82
Religiousness	5	5-27	21	22.96 (3.94)	.79
Quality of Life	21	21-105	75	74.08 (7.32)	.60

Frequencies

Appendix O describes how respondents rated each individual item regarding optimism. Of these ten items, seven were keyed in a positive direction and three were keyed in a negative direction. When examining the individual optimism items, the majority of respondents agreed or strongly agreed that overall they expect more good things to happen to them than bad (90%), that it is important to keep busy (88%), that they enjoy their friends a lot (82%), and that in certain times they usually expect the best (75%). However, 50 percent agreed or strongly agreed that if something can go wrong, it will.

Resilience

The resilience scale contains 25 items and scores ranged from 120 to 171 for this sample (Table 4-4). The potential scores range was 25 to 175. The overall mean score was 148.77 (SD = 11.10) indicating high levels of resilience. More than half of the respondents (58 %) fell into Wagnild's definition of a highly resilient person (e.g., score of 148 or higher). Also, findings demonstrated strong internal consistency with a Cronbach's alpha of 0.82.

Frequencies

Respondents rated each item regarding resilience from one (“strongly disagree”) to seven (“strongly agree”) (*Appendix P*). These items were intended to assess self-competence and acceptance of self by evaluating respondents’ life satisfaction, morale, depression, and self-reported health. Eight items represented acceptance of self and life by indicating adaptability, flexibility, and a balanced perspective on life (questions 44, 45, 48, 49, 53, 58, 59 and 62). The remaining seventeen items measured self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance, which represent personal competence (questions 38-43, 46, 47, 50, 51, 52, 54, 55, 56, 57, 60, and 61) (Wagnild & Young, 1990).

Overall participants demonstrated resilience. According to the results, an overwhelming majority felt proud they had accomplished things in life (100%), believed that keeping interested was important (100%), and that life had meaning (100%). When evaluating other resilience items, the majority usually managed one way or another (97%), were determined (97%), usually found something to laugh about (97%), and when in an emergency, felt they were someone on whom people could generally rely (97%). However, 21 percent of respondents did not think it was okay if there were people who did not like them.

Religiousness

Scale scores ranged from 5 to 27 (Table 4-3). The religiousness scale contained five items and in this sample scores ranged from 14 to 27. The mean score for this sample was 22.96 (SD = 3.94); and the overall internal consistency was 0.79.

Frequencies

Individual item frequencies for religiousness are reported in *Appendix Q*. The five items measured three aspects of religious involvement: public or organizational religious behavior (e.g., church attendance), private or non-organizational religious behavior (e.g., prayer or meditation), and intrinsic religious motivation (e.g., involvement of religion in all of one's dealings in life). Two items assessed attendance at religious activities and the other three items were concerned with non-organized religion and spiritual beliefs. All respondents attended church or other religious meetings and spent time in religious activities at least once a year with the majority (80%) engaging in these activities one or more times each week. Findings also revealed that participants had strong intrinsic religious motivation. Sixty-five percent firmly believed they experience the presence of the Divine in their lives; 55 percent firmly believed their religious beliefs are what really lie behind their whole approach to life; and 55 percent tried hard to carry their religion over into all other dealings in life.

Descriptive Statistics for Quality of Life Variable

The quality of life scale contained 21 items and scores in this sample ranged from 58 to 91. The potential scale range was from 21 to 105 (Table 4-4). The higher score represented a better quality of life. It appears as if respondents had a relatively high quality of life with a mean score of 74.08 (SD = 7.32) which was consistent with the mean score of 75 (SD = 2.5) in Cummins (1996) study used to norm the Quality of Life scale. The findings also demonstrated moderate internal consistency ($\alpha = .60$). This reliability score was also consistent with Cummins (1996) study sample ($\alpha = .64$).

The quality of life scale has seven domains (Table 4-5). These domains are material well-being, health, productivity, intimacy, safety, community, and emotional well-being (Cummins, 1996). Domain scores could range from five to fifteen. Many of the mean scores for the domains were above ten. The safety domain had the highest mean score of 12.19 (SD = 1.89), indicating a majority of participants felt safe in their homes, slept well at night, and were not anxious during the day. The emotion domain had the second highest mean score of 11.53 (SD = 2.05). This finding suggested respondents had a positive outlook on life. Many believed they were independent by being able to choose what they wanted to do each day. In addition, respondents believed wishes come true, and wanted to get out of bed at the start of each day. Also, respondents scored high on both the domains of intimacy and health with mean scores of 11.42 (SD = 2.89) and 11.38 (SD = 1.89) respectively.

The domains of productivity (8.35, SD = 1.36) and community (8.92, SD = 2.33) had the lowest mean scores. Many respondents watched four to six hours of television each day and were not members of community organizations.

Table 4-5 Means of the Domains for Quality of Life Variable

Domains	Item	Mean ± SD
<u>Material Well-Being</u>		10.27 ± 2.37*
Income	What is your personal or household (whichever is most relevant to you) gross annual income before tax?	2.88 ± 1.16
Possessions	How many personal possessions do you have compared with other people?	2.96 ± 1.13
Accommodation	Where do you live?	4.42 ± 1.05
<u>Health</u>		11.38 ± 1.89
Doctor	How many times have you seen a doctor over the past 3 months?	3.46 ± 1.54
Disability	Do you have any disabilities or medical conditions? (e.g., visual, hearing, physical health, etc.).	3.92 ± 1.00
Medication	What regular medications do you take each day?	4.00 ± 0.92
<u>Productivity</u>		8.35 ± 1.36
Hours	How many hours do you spend doing activities each week?	1.31 ± 0.46
Goals	In your spare time, how often do you have <u>nothing</u> much to do?	3.85 ± 1.03
Watch TV	On <i>average</i> , how many hours TV do you watch each day?	3.19 ± 0.62
<u>Intimacy</u>		11.42 ± 2.89
Talk	How often do you talk with a close friend?	4.15 ± 1.33
Activities	If you want to do something special, how often does someone else want to do it with you?	3.62 ± 1.22
Care	If you are feeling sad or depressed, how often does someone show they care for you?	3.65 ± 1.39
<u>Safety</u>		12.19 ± 1.89
Sleep	How often do you sleep well?	3.65 ± 0.96
Anxious	How often are you worried or anxious during the day?	3.92 ± 1.04
Safe	Are you safe at home?	4.62 ± 0.83

* Score range for each domain is 3 to15

Table 4-5 Means of the Domains for Quality of Life Variable (continued)

Domains	Item	Mean ± SD
<u>Community</u>		8.92 ± 2.33
Activities	Indicate how often in an average month you attend or do things for your enjoyment (not employment).	4.23 ± 1.22
Responsibility	Do you hold an unpaid position of responsibility in relation to any club, group, or society?	1.54 ± 0.69
Advice	How often do people <i>outside your home</i> ask for your help or advice?	3.15 ± 1.14
<u>Emotion</u>		11.53 ± 2.05
Choose	How often can you do the things you <i>really</i> want to do?	3.58 ± 1.15
Wishes	How often do you have wishes that cannot come true?	3.85 ± 0.87
Bed	When you wake up in the morning, how often do you wish you could stay in bed <i>all day</i> ?	4.12 ± 1.05

* Score range for each domain is 3 to 15

Correlational Analyses

Hypotheses one, two, and three were tested by first conducting a series of bivariate analyses correlating each positive psychological variable with the dependent variable. Because five of the eleven coping subscales did not show internal consistency, they were excluded from future analyses (Table 4-3). Only the six coping subscales with acceptable internal consistency were evaluated. The six coping subscales included in the analyses included denial, substance abuse, active coping, behavioral disengagement, self blame, and planning.

Positive Psychological Factors and Quality of Life

Quality of life was significantly associated with all six of the coping subscales (Table 4-6). Denial ($r = -.28$), behavioral disengagement ($r = -.30$), and self blame ($r = -.16$) were inversely related to quality of life. However, self distraction ($r = .19$), active coping ($r = .29$), and planning ($r = .68$) were positively correlated with quality of life

among these seniors. Of these coping strategies, planning ($r = .68$) had the strongest correlation with quality of life. Quality of life was also positively correlated with optimism ($r = .33$), resilience ($r = .48$) and religiousness ($r = .30$).

Table 4-6 Correlation between Positive Psychological Factors and Quality of Life (N = 182)

Positive Psychological Factors	r	R ²
<i>Coping</i>		
Denial	-.282*	.080
Self Distraction	.185**	.034
Active coping	.290*	.084
Behavioral disengagement	-.300*	.090
Self blame	-.157**	.025
Planning	.678*	.462
<i>Optimism</i>	.326**	.106
<i>Resilience</i>	.482**	.232
<i>Religiousness</i>	.295**	.087

* $p < 0.05$ (two-tailed), ** $p < 0.01$ (two-tailed)

The correlation coefficient squared (R squared) is a measure of the amount of variability in one variable that is explained by the other. This value can be used to tell how much of the variability in quality of life is accounted for by the coping dimensions. One example is the relationship between Planning and quality of life. These two variables have a correlation of 0.68. The R² value is $(0.68) \times (0.68) = 0.462$. When converted to a percentage, this value indicated how much of the variance in quality of life could be explained by Planning (46%).

The other three positive psychological factors were also positively associated with quality of life. Resilience was most highly correlated ($r = .48$, $p < .01$), accounting for 23

percent of the variability in quality of life. Optimism followed with a correlation coefficient of 0.33 and R^2 value of 0.11. Thus, optimism explained 11 percent of the variability in quality of life. Finally, religiousness ($r = .30, p < .01$) with an R^2 value of 0.087 accounted for 8.7 percent of the variability in quality of life. Thus, these positive psychological factors accounted for 68 percent of the variance in quality of life scores.

Correlation of Positive Psychological Factors and Socio-demographic Variables

Education

For the purposes of this analysis, education was considered a continuous variable because learning is an ongoing process (Case, 1985; Carroll, 1993). Education was significantly correlated with all but three of the coping subscales (Table 4-7). Planning ($r = .43$), active coping ($r = .37$), and self distraction ($r = .30$) were positively correlated with higher education levels meaning the higher the education level, the more likely the respondent was to use these coping skills. However, denial ($r = -.39$) and behavioral disengagement ($r = -.34$) were inversely related to education level meaning that the lower one's education level, the more likely the respondent was to use these coping mechanisms. Self blame ($r = -.001$) had no association with education level. In contrast, education was also positively correlated with optimism ($r = .33$), resilience ($r = .48$) and religiousness ($r = .30$).

Table 4-7 Correlation between Education and Positive Psychological Factors
(N = 182)

Positive Psychological Factors	Education (r)
Coping	
Denial	-.387*
Self Distraction	.299*
Active coping	.371*
Behavioral disengagement	-.343*
Self blame	-.001
Planning	.432*
Optimism	.307*
Resilience	.220*
Religiousness	.181*

*p < .01(two-tailed)

Marital Status

The t-test assesses the statistical significance of the difference between two independent sample means. If the t value is sufficiently large, then statistically one can say that the difference was not due to the sampling variability, but represents a true difference (Wright, 1997). Table 4-8 presents the differences between the marital status categories and positive psychological factors. Each married category was recoded to represent two levels of treatment so that a statistically significant difference could be determined between two independent sample means for that category. For example, the married category was recoded to represent Married and Other. For the widowed category, the two treatment levels were Widowed and Other. For the divorced category, the two treatment levels were Divorced and Other. For the single category, the two treatment levels were Single and Other.

Table 4-8

T tests, Mean, and Standard Deviation of Marital Status by Positive Psychological Factors

Positive Psychological Factors	T test	Married (N= 28) Mean (SD)	Other (N = 154) Mean (SD)	T test	Widowed (N = 105) Mean (SD)	Other (N = 77) Mean (SD)
Coping						
Denial	0.06	<i>M</i> = 4.24 SD = 1.82	<i>M</i> = 4.23 SD = 1.54	3.09*	<i>M</i> = 4.53 SD = 1.68	<i>M</i> = 3.82 SD = 1.35
Self Distraction	0.41	<i>M</i> = 5.25 SD = 1.32	<i>M</i> = 5.36 SD = 1.59	2.63	<i>M</i> = 5.60 SD = 1.59	<i>M</i> = 5.00 SD = 1.42
Active coping	1.13	<i>M</i> = 5.50 SD = 1.53	<i>M</i> = 5.86 SD = 1.58	3.98**	<i>M</i> = 6.20 SD = 1.38	<i>M</i> = 5.27 SD = 1.67
Behavioral disengagement	1.27	<i>M</i> = 3.50 SD = 1.14	<i>M</i> = 3.18 SD = 1.23	0.40	<i>M</i> = 3.20 SD = 1.28	<i>M</i> = 3.27 SD = 1.14
Self blame	0.53	<i>M</i> = 4.00 SD = 1.44	<i>M</i> = 3.86 SD = 1.22	0.21	<i>M</i> = 3.87 SD = 0.89	<i>M</i> = 3.91 SD = 1.63
Planning	3.48**	<i>M</i> = 7.00 SD = 1.76	<i>M</i> = 5.77 SD = 1.71	0.34	<i>M</i> = 6.00 SD = 1.68	<i>M</i> = 5.91 SD = 1.89
Optimism	0.07	<i>M</i> = 27.25 SD = 3.00	<i>M</i> = 27.32 SD = 4.60	4.68**	<i>M</i> = 28.60 SD = 3.40	<i>M</i> = 25.55 SD = 4.94
Resilience	3.32*	<i>M</i> = 155.00 SD = 9.69	<i>M</i> = 147.64 SD = 11.00	1.95	<i>M</i> = 150.13 SD = 9.23	<i>M</i> = 146.91 SD = 13.06
Religiousness	2.54	<i>M</i> = 21.25 SD = 3.56	<i>M</i> = 23.27 SD = 3.94	3.01*	<i>M</i> = 23.67 SD = 4.29	<i>M</i> = 22.00 SD = 3.18

* $p < .01$, ** $p < .001$ (two-tailed)

Marital Status (continued)

A statistically significant difference was determined between two independent sample means of married vs. all others when evaluating resilience (married $M = 155.0$, $SD = 9.7$; others $M = 147.6$, $SD = 11.0$) and the coping strategy of planning (married $M = 7.0$, $SD = 1.8$; others $M = 5.8$, $SD = 1.7$). The larger t score values ($t = 3.3$, $p < .01$ and $t = 3.5$, $p < .001$, respectively) indicated that the difference was not due to the sampling variability, but represented a true difference of these positive psychological factors in

Table 4-8

T tests, Mean, and Standard Deviation of Marital Status by Positive Psychological Factors (continued)

Positive Psychological Factors	T test	Divorced (N = 35) Mean (SD)	Other (N = 147) Mean (SD)	T test	Single (N = 14) Mean (SD)	Other (N = 168) Mean (SD)
Coping						
Denial	5.31**	<i>M</i> = 3.40 SD = 0.81	<i>M</i> = 4.43 SD = 1.66	0.57	<i>M</i> = 4.00 SD = 1.04	<i>M</i> = 4.25 SD = 1.62
Self Distraction	2.82*	<i>M</i> = 4.80 SD = 1.18	<i>M</i> = 5.48 SD = 1.60	0.66	<i>M</i> = 5.00 SD = 2.06	<i>M</i> = 5.38 SD = 1.50
Active coping	0.03	<i>M</i> = 5.80 SD = 1.62	<i>M</i> = 5.81 SD = 1.57	13.93**	<i>M</i> = 3.50 SD = 0.52	<i>M</i> = 6.00 SD = 1.48
Behavioral disengagement	1.25	<i>M</i> = 3.00 SD = 1.28	<i>M</i> = 3.29 SD = 1.21	1.72	<i>M</i> = 3.50 SD = 0.52	<i>M</i> = 3.21 SD = 1.26
Self blame	1.14	<i>M</i> = 4.20 SD = 1.97	<i>M</i> = 3.81 SD = 1.01	9.72*	<i>M</i> = 3.00 SD = 0.00	<i>M</i> = 3.96 SD = 1.28
Planning	0.60	<i>M</i> = 5.80 SD = 1.62	<i>M</i> = 6.00 SD = 1.81	6.91**	<i>M</i> = 4.00 SD = 1.04	<i>M</i> = 6.13 SD = 1.72
Optimism	3.08**	<i>M</i> = 24.60 SD = 6.21	<i>M</i> = 27.95 SD = 3.55	2.54	<i>M</i> = 24.50 SD = 3.63	<i>M</i> = 7.54 SD = 4.36
Resilience	2.52*	<i>M</i> = 143.80 SD = 13.57	<i>M</i> = 149.95 SD = 10.12	3.73**	<i>M</i> = 138.50 SD = 8.82	<i>M</i> = 149.63 SD = 10.86
Religiousness	1.61	<i>M</i> = 22.00 SD = 3.33	<i>M</i> = 23.19 SD = 4.04	1.69	<i>M</i> = 23.50 SD = 0.52	<i>M</i> = 22.92 SD = 4.09

* $p < .01$, ** $p < .001$ (two-tailed)

Marital Status (continued)

married participants when compared to all others. Widows were more likely to use active coping (widowed $M = 6.2$, $SD = 1.4$; others $M = 5.3$, $SD = 1.7$), denial (widowed $M = 4.5$, $SD = 1.7$; others $M = 3.8$, $SD = 1.4$), optimism (widowed $M = 28.6$, $SD = 3.4$; others $M = 25.6$, $SD = 4.9$), and religiousness (widowed $M = 23.7$, $SD = 4.3$; others $M = 22.0$, $SD = 3.2$). Divorced participants were more likely to use denial (divorced $M = 3.4$, $SD = 0.8$; others $M = 4.4$, $SD = 1.7$), optimism (divorced $M = 24.6$, $SD = 6.2$; others $M = 28.0$,

SD = 3.6), self distraction (divorced $M = 4.8$, $SD = 1.2$; others $M = 5.5$, $SD = 1.6$), and resilience (divorced $M = 143.8$, $SD = 12.6$; others $M = 150.0$, $SD = 10.1$); whereas singles were more likely to use active coping (single $M = 3.5$, $SD = 0.5$; others $M = 6.0$, $SD = 1.5$), planning (single $M = 4.0$, $SD = 1.0$; others $M = 6.1$, $SD = 1.7$), and resilience (single $M = 138.5$, $SD = 8.8$; others $M = 149.6$, $SD = 10.9$).

Employment Status

Table 4-9 presents the t scores for work status by positive psychological factors. Because none of the participants were employed, the socio-demographic variable term of employment status was changed to work status to reflect the study sample. Work was defined as purposeful activity without monetary compensation. The categories of “unemployment” and “retired volunteers” were eliminated because there were not enough people in these categories for analysis, $n = 7$ and $n = 8$ respectively. The two work status categories remaining were recoded. For example, the work status of “retired” was recoded to represent “retired and other” and the volunteer category was recoded to represent “volunteer and other.”

Regarding retired respondents, a statistically significant difference was found between the sample means of retired vs. all others when evaluating active coping (retired $M = 6.0$, $SD = 1.6$; others $M = 5.0$, $SD = 1.4$), religiousness (retired $M = 22.4.0$, $SD = 4.1$; others $M = 25.4$, $SD = 1.4$), optimism (retired $M = 26.9$, $SD = 4.7$; others $M = 29.0$, $SD = 2.0$), and resilience (retired $M = 149.8$, $SD = 11.8$; others $M = 144.6$, $SD = 5.8$). These larger t score values ($t = 3.6$, $p < .001$; $t = 7.5$, $p < .001$; and $t = 4.3$, $p < .01$, respectively) indicated that the difference was not due to the sampling variability, but represented a

true difference of these positive psychological factors in retired respondents when compared to all others.

Table 4-9 T tests, Mean, and Standard Deviation of Work Status by Positive Psychological Factors

Positive Psychological Factors	T test	Retired (N = 146) Mean (SD)	Other (N =36) Mean (SD)	T test	Volunteer (N =21) Mean (SD)	Other (N = 161) Mean (SD)
Coping						
Denial	0.93	<i>M</i> = 4.27 SD = 1.67	<i>M</i> = 4.06 SD = 1.15	1.75	<i>M</i> 3.67 (1.28)	<i>M</i> 4.30 (1.61)
Self Distraction	2.47	<i>M</i> =5.47 SD = 1.57	<i>M</i> = 4.83 SD = 1.34	1.09	<i>M</i> 5.00 (1.67)	<i>M</i> 5.39 (1.53)
Active coping	3.55**	<i>M</i> = 6.01 SD = 1.55	<i>M</i> = 5.00 SD = 1.41	2.54	<i>M</i> 5.00 (1.67)	<i>M</i> 5.91 (1.54)
Behavioral disengagement	0.23	<i>M</i> = 3.24 SD = 1.27	<i>M</i> = 3.19 SD = 0.98	2.28	<i>M</i> 2.67 (0.97)	<i>M</i> 3.30 (1.24)
Self blame	0.93	<i>M</i> = 3.86 SD = 1.37	<i>M</i> = 4.00 SD = 0.63	0.45	<i>M</i> 4.00 (0.84)	<i>M</i> 3.87 (1.30)
Planning	1.53	<i>M</i> = 6.03 SD = 1.90	<i>M</i> = 5.67 SD = 1.10	0.19	<i>M</i> 6.00 (0.84)	<i>M</i> 5.96 (1.86)
Optimism	4.28*	<i>M</i> = 26.88 SD =4.69	<i>M</i> = 29.03 SD = 2.01	0.88	<i>M</i> 27.67 (1.28)	<i>M</i> = 25.55 SD = 4.94
Resilience	3.81*	<i>M</i> 149.81 SD = 11.83	<i>M</i> = 144.56 SD = 5.82	6.36*	<i>M</i> 142.00 (3.65)	<i>M</i> 149.65 (11.44)
Religiousness	7.52**	<i>M</i> = 22.35 SD = 4.12	<i>M</i> =25.44 SD = 1.38	6.32*	<i>M</i> 25.33 (1.28)	<i>M</i> 22.65 (4.06)

*p< .01, **p < .001 (two-tailed)

Results of Multivariate Analyses Using Linear Regression

Multiple regression analysis is a multivariate statistical technique used to examine the relationship between a single dependent variable and a set of independent variables. In this study, quality of life was used as the dependent variable in the linear regression and the positive psychological factors were used as the predictor variables. The

confirmatory perspective was the approach used for specifying the regression model because the set of independent variables were completely specified at the onset of the research.

In multiple regressions, once the variate is derived, it acts collectively in predicting the dependent variable. As a result, several assumptions for the individual variables and the variates can be assessed. Three assumptions were examined: linearity, constant variance, and normality. The linearity of the relationship between the dependent and independent variable represents the degree to which the change in the dependent variable is associated with the independent variable. Scatterplots of the variables did not indicate any nonlinear relationships between the dependent and independent variables. Second, in tests for constant variance, homoscedasticity was found. Homoscedasticity is an assumption relating primarily to dependent relationships between variables. It refers to the assumption that the dependent variable exhibits equal levels of variance across the range of predictor variable (Hair, 1998). Finally, in the tests for normality, there was no evidence of skewness or kurtosis. Kurtosis is a measure of the peakness or flatness of a distribution when compared with a normal distribution. Skewness is the measure of symmetry of a distribution, the most common being normal distribution. All three of the above assumptions were tested and satisfied.

Finally, multicollinearity was assessed. Two of the more common measures for assessing multiple variable collinearity are the tolerance value and the variance inflation factor (VIF). These measures indicate the degree to which each independent variable is explained by the other independent variables. Tolerance is the amount of variability in the selected independent variable not explained by the other independent variables. Thus

very small tolerance values and large VIF values denote high collinearity. Although there are no specific rules about what value of the VIF should be of concern, Myers (1990) suggests that a value of 10 is a good value at which to worry. Using this method, multicollinearity was unsubstantiated, which means there was no sharing of the predictive power among the positive psychological factors used for this model.

Multicollinearity exists when there is a strong correlation between two or more predictors in a regression model. Perfect collinearity (when at least one predictor is a perfect linear combination of the others) is rare in real-life data, thus less than perfect collinearity is virtually unavoidable. In short, high levels of collinearity increase the probability that a good predictor of the outcome will be found nonsignificant and rejected from the model. However, this result was not the case in this regression model (Table 4-10).

Overall, all four positive psychological factors except Behavioral Disengagement of the coping subscales were predictors of quality of life among aging African American women (Table 4-10). The adjusted R^2 value (.72) for the model identified how much variability in quality of life was accounted for if the model had been derived from the population from which the sample was taken. Thus, 72 percent of the variance was accounted for by the predictors in this regression model.

Table 4-10

Linear Regression Model: Socio-demographic and Positive Psychological Variables as Predictors of Quality of Life (N= 182)

Variables for Prediction	β	p value	95% CI
<u>Socio-Demographics</u>			
Education	.095	.059	-.032, 1.69
Marital Status	.051	.339	-.400, 1.16
Employment Status	.136	.330	-.622, 2.98
<u>Positive Psychological Factors</u>			
Coping			
Denial	-.172**	.001	-1.26, -.336
Self Distraction	-.346**	.000	-2.21, -1.07
Active coping	.278**	.000	.182, .766
Behavioral disengagement	-.062	.357	-1.16, .422
Self blame	-.226**	.000	-.590, -.205
Planning	.750**	.000	2.30, 3.91
Optimism	.308**	.000	.266, .764
Resilience	.338**	.000	.140, .350
Religiousness	.170*	.007	.087, .545

* $p < .01$, ** $p < .001$; $R^2 = .74$; Adjusted $R^2 = .72$

Hypotheses Findings

There were three research questions. In this section of the chapter, each question will be restated along with the original hypotheses. The following summarizes all findings for the hypotheses posed.

Question One

What positive psychological factors are associated with quality of life in aging African American women?

Hypothesis 1a. Coping will be positively correlated with quality of life.

Coping was positively associated with quality of life in aging African American women. All six of the subscales with adequate internal consistency were significantly ($p < .05$) correlated with quality of life. Denial and Behavioral Disengagement were appropriately inversely related. This hypothesis was supported.

Hypothesis 1b. Optimism will be positively correlated with quality of life.

Optimism was significantly ($p < .01$) and positively associated with quality of life ($r = .33$). This hypothesis was supported.

Hypothesis 1c. Resilience will be positively correlated with quality of life.

Resilience was positively correlated with quality of life ($r = .48, p < .01$). This hypothesis was supported.

Hypothesis 1d. Religiousness will be positively correlated with quality of life.

Religiousness was positively associated with quality of life ($r = .30, p < .01$). This hypothesis was supported.

Question Two

What socio-demographic factors are associated with the positive psychological factors in aging African American women?

Hypothesis 2a. Socio-demographic factors will be positively correlated with coping.

Specifically,

- (1) Those with higher levels of education will have better coping skills.

Education was positively associated with coping. Five of the six internally consistent coping subscales were statistically significant ($p < .01$). Denial and Behavioral Disengagement were appropriately inversely related. This hypothesis was supported.

(2) Those who are married will have better coping skills.

Only one of the coping subscales (planning) was shown to have a t score with a statistically significant difference when comparing married participants with all others. This hypothesis was not supported.

(3) Those who are employed will have better coping skills.

Given that none of the study participants were employed, employment could not be examined. As a result, this analysis could not be conducted. The variable was reworded to work status and included only retired and volunteering participants. The analysis conducted with these variable categories revealed that only Active Coping was significant ($t = 3.56, p < .001$). Thus, this hypothesis was not supported.

Hypothesis 2b. Socio-demographic factors will be positively correlated with optimism. Specifically,

(1) Those with higher levels of education will be more optimistic.

Education was positively correlated with optimism ($r = .31, p < .01$). Thus as education levels increased, respondents were more optimistic and this hypothesis was supported.

(2) Those who are married will be more optimistic.

Being married had no effect on optimism, so this hypothesis was not supported.

(3) Those who are employed will be more optimistic.

Given that none of the study participants were employed, employment could not be examined. The variable was reworded to work status and included only retired and

volunteering participants. The analysis conducted with these variable categories revealed that optimism was significant ($t = 4.183, p < .01$) only for retired respondents, therefore this hypothesis was not supported.

Hypothesis 2c. Socio-demographic factors will be positively correlated with resilience.

Specifically,

(1) Those with higher levels of education will be more resilient.

Education was positively correlated with resilience ($r = .22, p < .01$). Therefore, as education level increases, respondents were more resilient and this hypothesis was supported.

(2) Those who are married will be more resilient.

Being married had a positive effect on resiliency. The t score ($t = 3.32, p < .01$) showed a statistically significant difference between the means when comparing married participants ($M = 155.00, SD = 9.69$) to all others ($M = 147.64, SD = 11.00$). Therefore, those who were married were more resilient; and this hypothesis was supported.

(3) Those who are employed will be more resilient.

Given that none of the study participants were employed, employment could not be examined. However, the variable was reworded to work status and was changed to represent respondents who were retired and who were volunteers. The analysis conducted with these variable categories revealed that resilience was significant for participants who volunteered ($t = 6.363, p < .01$) and participants who were retired ($t = 3.81, p < .01$). Therefore the hypothesis was not supported.

Hypothesis 2d. Socio-demographic factors will be positively correlated with religiousness. Specifically,

(1) Those with lower levels of education will be more religious.

Education was positively correlated with religiousness ($r = .18, p < .01$). Therefore as education level increased, the respondents were more religious and this hypothesis was not supported.

(2) Those who are married will be more religious.

Religiousness had no effect on married women in the study. This hypothesis was not supported.

(3) Those who are retired will be more religious.

Religiousness has an effect on retired respondents. The t score (7.52, $p < .01$) showed a statistically significant difference between the means when comparing retired respondents ($M = 22.35, SD = 4.12$) with all others ($M = 25.44, SD = 1.38$). Therefore, this hypothesis was supported.

Question3

How well do the positive psychological factors predict quality of life?

Hypothesis 3: All four positive psychological factors will be predictors of quality of life in the regression model.

The results of the linear regression revealed that all four positive psychological factors were predictors of quality of life. This hypothesis was supported.

Summary

The purpose of this study was to examine the association between positive psychological factors and quality of life among African American women aged 65 and older. This study also examined how socio-demographic factors influenced quality of life in this sample. This chapter provided an overview of findings from the survey. A discussion of these findings and the implications of this research are presented in Chapter Five.

CHAPTER FIVE: DISCUSSION

The purpose of this investigation was to examine the interrelationships among social demographic variables, positive psychological factors and quality of life measures. Of particular interest was the combination of four positive psychological factors as predictive variables of quality of life and thus the potential for improved health outcomes among older African-American women. This chapter summarizes the findings presented in chapter four, discusses the importance and relevance of the study findings, and makes recommendations for future research studies.

Discussion of Summary Findings

The Sample

Although older African Americans are a relatively small percentage of the total African American population (10%), adults over age 65 are the fastest-growing segment of that group. The greatest proportion (nearly 60 percent) is the young-old (those 65-74). These demographics are evident among this study population. Of the 182 participants, the majority (69%) fell into the young-old category. In terms of their education, more than 95 percent earned a high school diploma or better with 23 percent attending college and 19 percent graduate school. These findings are reflective of educational initiatives and advancement made during the mid-nineteenth century. None of the women in the study were employed. This finding was not surprising given the age of these respondents ($M = 71.8$, $SD = 5.6$). The majority (80%) were retired. In addition, many of the women were widowed (58%), which is also not surprising given the life expectancy of African American men (NCHS, 2003).

This sample is also unique in that it helps to reduce some of the biases about African Americans. Some of the images portrayed of African Americans are of despair, destitution, and ignorance. The participants of this study represented an educated, economically secure, and self-sufficient group of older individuals able to adequately provide for themselves. These findings reveal the heterogeneity of African American people and the diversity among aging African Americans.

Socio-demographic Factors

This study raised some interesting questions about the relationship between socio-demographic factors and positive psychological variables. Three socio-demographic factors were examined: education level, marital status, and work status.

Education

Education was positively associated with the four positive psychological variables in this study, and these relationships are supported by the literature. Education benefits people into old age, especially women (Crimmins and Saito, 2001). Of the six internally consistent dimensions evaluated from the Brief COPE scale, planning ($r = .43$) and active coping ($r = .37$) were the two most strongly correlated with education. Several early childhood development theories support techniques for information processing and embrace student-centric promotion (Sternberg, 1999; Blumenfeld, Puro, & Mergendoller, 1992). Information processing involves sequencing, problem solving and planning (Hunt & Ellis, 1999). Student-centric strategies help to foster active participation in learning (Ames, 1990, 1992). The acquisition of these skills at an early age continues to be applied throughout life and as results of this study may indicate, is influential in better coping ability.

Education was also positively correlated with optimism ($r = .33$), resilience ($r = .48$) and religiousness ($r = .18$). Perhaps the educated elderly African American women in this study were optimistic and resilient because of their awareness and experience that education provides better opportunities for economic security. An interesting finding, however, was that educated women were more religious. The original hypothesis was that less educated women would be more religious. The less educated tend to follow and not question authority, while the more educated tend to question authority and challenge leadership (Kozulin & Falik, 1995). The suggestion is that the less educated would be more religious because they would be less likely to question or challenge the religious leadership (i.e., ministerial staff). However, in this sample, the more educated women were more religious. These women may still question and challenge leadership, just not when religion or a religious authority is involved. This behavior may be linked to strong cultural ties and a rich traditional history of African Americans and religion (Koenig, 2002).

Marital Status

There were a variety of relationships identified between marital status and the positive psychological variables. Being married and being single had a positive effect on resiliency. Participants who were married were more resilient when compared to all other marital status groups combined, as were those who were single. Resilience is characterized by one's ability to apply positive adaptation in the context of significant adversity (Campbell, 1970). Married participants more than likely had years of experience dealing with potentially adverse marital situations, like family and financial matters. Elderly singles may also have dealt with adverse situations, like health,

financial, and safety issues living on their own. Both groups had to adapt in the context of these probable hardships. It may be because of these experiences that married and single participants scored higher on the resiliency scale.

While married and single participants may have been more resilient, widows were the most religious. This finding is not surprising given that many of the participants believed in the Divine (65%) and were widowed (58%). One possible explanation for these findings is that these women no longer had their significant others upon which to rely, and as a result turned to religion. Another reason might be that religiousness was a way of finding support. As widows, they no longer had the support of their significant others and sought support from the religious community.

In addition, widows appeared to be more optimistic than the other marital status groups. When people confront adversity or difficulty, they experience a variety of emotions, ranging from excitement and eagerness to anger, anxiety, and depression. The death of a spouse is difficult and women who experience this event experience the variety of emotions described. However, it is the balance among these feelings that appear to relate to a person's degree of optimism. Optimists are people who expect to have positive outcomes, even when things are hard (Marsa, 2004). This confidence often yields a mix of feelings that are relatively positive. Perhaps the widows simply expect positive outcomes, despite the hardship of loss. For example, more than 90 percent commented that overall they expected more good things to happen to them than bad.

Work Status

Eighty percent of the participants were retired. The Heldrich Center surveyed workers about retirement. It wasn't surprising that most Americans indicated they would

like to retire at age 65 or younger (Cutler, Whitelaw, & Beattie, 2002). However, only ten of the 1,000 workers surveyed said they just wanted to pursue leisure and recreation. The other 90 percent said they wanted to start a new career, start their own business, go to school, work full-time, work part-time, or do volunteer work. Thus they wanted to continue contributing after “retirement age” (Cutler & Hendricks, 2000).

The relationship between employment status and the positive psychological factors provide some interesting results. Because none of the participants were employed, the socio-demographic variable term of “employment status” was changed to “work status” to reflect the study sample. Of the positive psychological factors, religiousness was important to respondents who were retired or volunteers. One explanation for this finding is that retired women may have more time to engage in activities they enjoy. One of these activities may be attending church. More than 80 percent attended church once or more each week. Not only are churches places of religious connection, but they are also places for social connection.

The older women who worked as volunteers may have been more religious because of their religious motivation. More than 80 percent believed that their religious beliefs were the underpinnings of their whole approach to life. Most religious teachings encourage helping others in need. Volunteering is an act that embraces this directive. Therefore, the elderly women volunteers in this study may have been more religious based upon this precept.

Also, resilience was highest among volunteer workers. One possible explanation is that a certain hardiness and stamina is required for those who choose to give of themselves for the benefit of others (Smith & Prior, 1995). A second explanation might

be the variety of interactions these senior volunteers are exposed to with others. Another may include study participants recognizing how much better their lives are in comparison to what others they are helping may face. All of these factors may improve their resilience.

Not surprisingly, active coping was the technique used most among retired women. A 1999 American Association of Retired People (AARP) survey found that 61 percent of retirees and 70 percent of non-retirees said retirement was a time to begin a new chapter by being active and involved, starting new activities and setting new goals (AARP, 2002). Studies of coping among the aging have indicated that acceptance of changes in one's life (e.g., retirement, divorce of children or grandchildren) may be the most adaptive coping response one can make (Carstensen, Pasupathi, & Mayr, 2000). Adaptation is an active process. Control over external events may become less important than the need to make uncontrollable events more acceptable to one's values and beliefs. In most cases, the coping styles chosen by older people were appropriate for the problem at hand and resulted in successful adaptation (Costa & McCrae, 1994).

This finding is contrary to the myth that older people can not cope with the stress of life or the realities of aging. The results clearly indicate that elderly women do perceive themselves as capable of coping and actively taking measures to deal with stressful situations. For example, when under a great deal of stress, 65 percent stated they concentrated their efforts on doing something about the situation they were in, and 58 percent said they took action to try to make the situation better.

Coping

When evaluating internal consistency of the Brief COPE subscales, six of the eleven alpha reliabilities met or exceeded the value of .50 regarded as minimally acceptable (Nunnally, 1978). The denial ($\alpha = .50$), self distraction ($\alpha = .60$), active coping ($\alpha = .67$), behavioral disengagement ($\alpha = .54$), self blame ($\alpha = .58$), and planning ($\alpha = .75$) subscales were internally consistent and used in the analyses while substance abuse, emotional support, venting, instrumental support, and humor were not. Because of the inadequate internal consistency of these specific subscales, all the coping dimensions suggested by Carver, Scheier, and Weintraub (1989) for the Brief COPE scale were not measured.

Not surprisingly, quality of life was associated with coping. All six of the coping subscales measured were associated with quality of life. Three were positively associated and three were negatively associated with quality of life. Of the dimensions positively associated with quality of life (self distraction, active coping, and planning) planning was the most strongly correlated ($r = .68$). In some cases an individual may focus only on solving the problem. Problem-focused coping tries to manage and alter stressors and is more useful in situations in which a constructive solution can be found. Problem-focused coping strategies include confronting by changing a stressful situation assertively, as well as planned problem solving which includes solving through deliberate, problem-focused strategies (Taylor & Armor, 1996).

Of the dimensions negatively associated with quality of life (denial, self blame, and behavioral disengagement), behavioral disengagement was the most strongly correlated ($r = -.30$). In some cases an individual may focus only on dealing with the

emotional distress that a stressful situation creates. Emotion-focused coping tries to regulate one's emotional response to stressors and is more useful in situations in which the problem must be accepted. One of these coping strategies includes self-distancing (Lazarus & Folkman, 1984). Self distraction and behavioral disengagement are related. Although helpful in coping with stressful situations, for this sample, both self distraction and behavioral disengagement were negatively associated with quality of life. These were coping strategies not used by the women in this sample with more than fifty percent choosing not to give up attempting to cope.

The presence of significant psychological stress in the lives of elderly people is well documented. Growing older has been associated with poor adjustment and depressive symptoms (Brown, et al., 1989; Brown 1990); uncertainty, decreased mobility, reduced energy and fatigue, loss of functional ability (Wiener, 1975; Burckhardt, 1988; Lorish et al., 1991, Revenson et al., 1991, Melanson & Downe-Wamboldt, 1995); and diminished self-esteem (Cohen et al., 1986). However, the results of this study revealed the opposite and suggest that the elderly use a variety of coping skills to combat psychological stress. According to this sample, elderly women adjust well, are certain in their focus, are independent, and have a relatively high self esteem. Perhaps the findings of this study are different from those previously cited because today, the older person has a different outlook or perceives there are more options. These findings could be adding something new to the literature on aging by revealing the changing characteristics of the elderly. Another explanation, this was a biased study sample. The women in this sample were well educated and comfortable financially making it difficult to compare this sample to those in previous studies.

Optimism

The optimism scale contained ten items and scores could range from 0 to 40. For this sample, scores ranged from 0 to 35. A high score indicated the respondent was more optimistic. It appears as if participants were moderately optimistic with a mean score of 27 (SD = 4.38). Also, the Cronbach's alpha for optimism ($\alpha = .59$) was found to be lower than that of the Scheier, Carver & Bridges (1994) study samples ($\alpha = .76$).

It is possible that differences in socio-demographic factors affected the measurement of optimism among aging African American women using the revised Life Oriented Test (LOT). There were differences in demographic status between the sample in this study and the Scheier, Carver & Bridges (1994) study. The respondents in the 1994 study were younger, undergraduate college students in the Northeast with higher education levels. The Scheier, Carver & Bridges study sample consisted of both females and males, with less life experience.

The respondents of this study were drawn from senior residential centers in the Baltimore Metropolitan area. The sample was older than the Scheier, Carver & Bridges sample and received less education. Also, male participants were not included. Thus, the responses to the optimism items were reasonably different and yielded a different Cronbach's alpha value.

Another explanation for the difference may be the inconsistency in responses to the reverse coded items. Recall the participants gave different responses to the following items. In response to the statement: "If something can go wrong for me, it will," 46 percent agreed, meaning they had a more pessimistic outlook. In response to the statement: "I hardly ever expect things to go my way," 38 percent disagreed, meaning

they had a more optimistic viewpoint. In response to the statement: “I rarely count on good things to happen to me,” 43 percent disagreed, meaning they had a more optimistic perspective. One would expect the responses to be similar in more resilient people. They were not and as a result may have altered the reliability score.

Not surprisingly, quality of life was also correlated with optimism ($r = .33$). This finding was supported by the literature. It is important that one adopt an optimistic view (Seligman, 1991), especially when it comes to the aging population. One study actually revealed that among an aging population, an optimistic outlook on life was essential for the preservation and maintenance of a functional health status (Aschat, Kawachi, & Spiro, 2000). For example, in this study, health was one of the seven quality of life domains examined. The mean scores ranged from three to fifteen. The high mean score of 11.38 ($SD = 1.89$) indicated that respondents valued preserving and maintaining a functional health status. This higher domain score contributed to higher total quality of life scores. The positive correlation with optimism suggests that these findings may have been influenced by participants’ positive perspectives about life.

Resilience

The resilience scale contains 25 items and the resilience score ranges from 25 to 175. In this sample, scores ranged from 25 to 149. The results revealed a mean score of 149 ($SD = 11.10$) and showed high internal consistency with a Cronbach’s alpha of 0.82. More than half of the respondents (58 %) fell into the Wagnild’s definition of a highly resilient person (e.g., scoring 148 or higher). The Resilience Scale addresses how respondents rated items assessing resiliency. These items assessed self-competence and

self-acceptance. Respondents were asked to indicate the extent to which they agree with each of the items. Responses ranged from one (“I strongly disagree”) to seven (“I strongly agree”).

There are several strategies used by resilient elderly women in dealing with adversity throughout their lives. Personal competence is one of them. Many strive to preserve their independence and choice over their fate. In preserving choice, participants in this study may have used strategies that they had used successfully in managing past difficulties. Their efforts may now have been directed toward holding the line against the eventuality of placement, or worse, being a burden to their families. For example, more than 75 percent of the respondents commented they were able to depend on themselves more than anyone else.

Despite diminished resources, they valued having control over their fate and viewed their decisions regarding both everyday living and future plans as active choices. Eighty-eight percent of the participants stated they felt as if they could handle many things at a time; and 80 percent believed they could find their way out of a difficult situation. Preserving choice may have involved the dual components of conserving resources and making strategic concessions to exigency. These components are integrally linked. In order to conserve and maximize their resources, they may have actively yielded some aspects of independence with the paradoxical goal of maintaining autonomous decision-making. Perhaps these women faced life pragmatically. As they had throughout their lives, they drew in old age on personal resources of flexibility, determination, self-confidence and resourcefulness.

Religiousness

The religiousness scale contains five items and the scores could range from 5 to 27. The scores for this sample ranged from 19 to 27. All the respondents attended church or other religious meetings and spent time in religious activities at least once a year with 70 percent or more engaging in these activities one or more times each week. These findings are supported by the literature. Consistent with patterns of involvement in other organizations, women, particularly African American women, have higher rates of religious involvement than men (Levine, Taylor, & Chatters, 1994).

Results also revealed that participants have a strong belief in intrinsic religious motivation. In other words, their religious beliefs inform their behaviors and actions. Sixty-five percent firmly believed they experience the presence of the Divine in their lives; 55 percent firmly believed their religious beliefs are what really lie behind their whole approach to life; and 55 percent try hard to apply their religious beliefs in life situations. These findings are also consistent with the literature. Among African American women in particular, spirituality was found to engender self-esteem and positive interpretations of life circumstances (Black, 1999).

Therefore, it should come as no surprise that religiousness was correlated with a better quality of life. The contribution of religious activity to psychological well-being, and the role of religious belief in coping with adversity are tied to religious commitment. Although, ill health and functional limitations may restrict one's ability to go to church regularly, one's intrinsic desire to attend church may overcome these obstructions. However, this sample was reasonably healthy as indicated by high mean scores on the health domain discussed earlier. Better health may have resulted in higher than normal

church attendance because they were not limited by physical impairments. The high domain scores in health may have also contributed to overall higher quality of life scores. Regardless, the respondents' religious faith appears to play an important role in facilitating a better quality of life.

Quality of Life

The quality of life construct is complex. There is neither an agreed definition of quality of life nor a standard form of measurement. There are a variety of instruments available to measure quality of life, many of which are complicated. The Cummins (1996) quality of life scale however is not. In addition, this scale's previous use with adult and elderly population (Cummins, Fogarty, McCabe, & Hamond, 1995) provided support for its use in this study. The Quality of Life Scale (QOL) incorporates a contemporary understanding of the quality of life construct. As such, it contains a multidimensional feature. The quality of life scale contains 21 items and the possible scale range was from 21 to 105. The higher score represented a better quality of life. The results revealed a mean score of 74 (SD = 7.32) which was consistent with the mean score of 75 (SD = 2.5) in Cummins (1996) study.

Quality of life (QOL) was measured using seven domains. These domains were material well being, health, productivity, intimacy, safety, community, and emotional well-being (Cummins, 1996). The scale addressed each of the seven domains. Domain scores could range from three to fifteen. Each domain contained three items. Each item score could range from one to five. The measurement of each domain was achieved by obtaining an aggregate score based on those three items. For example, "health" is

measured by an aggregate mean score of doctor visits, type of disability, and number of medications. The aggregate mean score for the health domain was 11 (SD = 1.89). The largest contributor to this score was the medication item with a mean score of 4 (SD = .92). The majority (55%) used one or no medications which suggest a better quality of life. Most equate old age with poor health and the consumption of several medications. For neither category – poor health or consumption of several medications – to be represented suggests that the quality of life findings may be higher than that of the general elderly population and unique to this sample.

Respondents' scores on the intimacy domain were also fairly high ($M = 11$, $SD = 2.89$). For the intimacy domain, it was important that respondents talk often with a close friend and that someone showed care for them. Recall 58 percent of the participants were widowed and talking with close friends may have been a way to deal with the loss. Social support can promote health by providing persons with positive experiences, socially rewarding roles, or improved ability to cope with stressful events. Social support is critical for older adults who are at increased risk for social isolation after the loss of a partner (Seeman, 2000). Given the high mean score of this domain, it was unusual that neither Instrumental nor Emotional Support were internally consistent when evaluating the Brief COPE subscales. Perhaps if they had been, there would have been greater support for the importance of intimacy as a domain that helps predict quality of life.

The Conceptual Framework

Successful aging encompasses multiple dimensions of health, including physical, functional, social, and psychological well-being (Phelan, Anderson, LaCroix, & Larson, 2004). Maintaining a high level of quality of life into advanced age is a growing public

health concern as the older adult population continues to increase. In fact, one of the primary goals of Healthy People 2010 is to improve both the quality and number of years of healthy life (U.S. Department of Health and Human Services, 2000).

Of course getting better with age doesn't happen automatically. But continuous learning and growth, one can get better with age. Learning can come from taking classes, reading books, intelligent conversation, some radio or television programs, role models, or pursuing special interests. Even pastimes like crossword puzzles and playing bridge keep memories and minds sharp. If one decides to value lifelong learning, then one will seek opportunities to learn and grow. Growth isn't limited to intellectual learning. It also involves increased maturity. It means having more perspective on problems, being more accepting of others, and being slower to anger or criticize.

Advances in healthcare are helping the aging community function younger at chronologically older and older ages. The challenge facing the field is to understand ways in which individuals cope to creatively solve problems, or even to prevent problems from occurring in the first place. Above all, positive psychological factors must be seen as a means for human development as well as a mechanism of defense against illness and disease. Coping, optimism, resilience, and religiousness were four positive psychological factors that were investigated in this study.

Many aging African Americans, especially among the oldest-old, displayed considerable strength and resilience. In addition, coping strategies of optimism and religiousness also appeared to benefit this population in terms of both physical and mental well-being with implications for a better quality of life. As such, the findings of this literature review laid the foundation for a conceptual framework to be incorporated

into the research design (Figure 2-2). It reveals the interconnections between positive psychological factors and quality of life. Previous studies have indicated that each is positively related to improved quality of (Aldwin, 1994; Catherall, 2004; Grant & Higgins, 2003; Bauman, 2001; Ellison, Baordman, Williams, & Jackson, 2001). However, there has not been any model that incorporates all four variables collectively to determine their effect on quality of life, especially and specifically among aging African-Americans, which was the purpose of the study.

In linear regression models, the standardized beta values (β) and their significance are important statistics to evaluate. This value tells the number of standard deviations that the outcome will change as a result of one standard deviation change in the predictor. All of the standardized beta values are measure in standard deviation units and thus are directly comparable. Therefore, they provide a better insight into the importance of a predictor in the model.

The linear regression model revealed planning to be the strongest predictor of quality of life ($\beta = 0.75$, $p < .001$). These standardized beta values indicate that both variables have a significant degree of importance in the model. For example, the beta value of 0.75 for planning indicates that as planning increases by one standard deviation (SD = 1.8), quality of life will increase by 0.75. The standard deviation for quality of life is 7.32, so this constitutes a change of 5.5 in the quality of life scale score (0.75×7.32). Therefore, for every score increase of 1.8 on the planning subscale, the quality of life scale score will increase by 5.5.

Planning is a practiced behavior among women in matriarchal and care giving roles. Health is affected by these roles that most African American women play

(Williams, Dilworth-Anderson, & Goodwin, 2003). Given the life pressures, economic stress, and family structures among the black population, older women may be at a higher risk of health problems despite their attempts to promote their own health (Scott, 1991). Alternatively, these life pressures and cultural expectations may predispose these women to attend to other needs rather than their own health.

However, these findings for the coping dimension of planning refute the research suggesting Black older women engage in significantly fewer efforts to promote their health and thus their quality of life and that they are much more likely to be health-pessimistic (Baquet, 1988; Gibson, 1991). Women in this study commented they made the effort to come up with coping strategies and thought hard about what steps to take as a way of improving life quality. Also, many used few medications and more than 35 percent indicated they visited the doctor less than once over the past three months. In addition, many commented that they did not spend their free time taking care of children or their grandchildren. Thus, the perception that most elderly African American women may put their family's needs ahead of their own was not supported by this study's findings. This is not to say as members of the black family network they did not at one time serve in this capacity. Being the consummate caregiver requires a great deal of planning. Even though the findings of this study indicated the respondents are not current practicing care givers, they more than likely were at some point in their lives. Perhaps it was this past association that resulted in planning being a strong predictor of quality of life.

Additionally, findings about resilience and planning confirm the research of others that looked at how individual differences in resilience played an important role in

adjustment to stressful life events (Taylor, et al., 1992). Greater resilience has been associated with better adaptation under extenuating circumstances by meeting age-salient developmental tasks in spite of serious threats to development (Helgeson & Taylor, 1993). Resilient people tend to cope more effectively with their stressors and these coping differences contribute to the positive association between resilience and better adjustment (Stanton & Snider, 1993). This better adjustment was the result of greater planning. Greater planning was associated with a reduction in stress. Greater resilience was also associated with a reduction in stress. A logical conclusion is that if there is less stress, there is likely an increased potential for improving quality of life, potentially explaining why resilience and planning were stronger predictors of quality of life among aging African American women in this study.

Significance of Research

Implications and Future Applications for Public and Community Health

Ethnic and racial disparities in health conditions and in the quality of health services have increasingly been the topic of national reports and investigations (NCHS, 2003). In general, many disparities have been found (Albert, et al., 2000; Angel & Hogan, 1994, Chernoff, 2001, Lynch, Smith, Kaplan, & House, 2000; Smith, Bernard, Konrad, Schwartz, & Defriese, 1997). In the United States, African Americans bear a disproportionate burden of disease, premature death and disability. For example, compared to other ethnic racial groups, African Americans have the highest rates of mortality from heart disease, cancer, cerebrovascular disease, and HIV/AIDS (Smedley, Stith, & Nelson, 2003). African Americans also experience a lower quality of health services across a wide range of disease areas including cancer, cardiovascular disease,

diabetes, and other chronic and infectious diseases (Agency for Healthcare Research and Quality [AHRQ], 2004).

As researchers and policy makers, it is important to understand the factors affecting health related quality of life outcomes (Giedzinska, Meyerowitz, Ganz, & Rowland, 2004). A greater understanding of the reasons for positive health is critical. This exploratory study examined the interrelationships among social demographic variables, positive psychological factors and quality of life measures. The rationale for selecting African American women 65 years of age and older was that historically women and African Americans have not been included in research studies (Office of Minority Health, 2004). Although there is more research about African Americans, women and the elderly, more research needs to be conducted with aging African American women. This study was conducted to help meet this need.

Above all, this study underscored the importance of coping, optimism, resilience, and religiousness in predicting quality of life. The strong association between these positive psychological factors and quality of life is noteworthy. It suggests that certain coping mechanisms, optimism, resilience, and religiousness may be more important in the development of quality of life than previously understood and may have greater impact on quality of life than one factor alone. However, for those who are not able to manage stress, their positive psychological factors may be low which in turn has implications for a lower quality of life. It would be interesting for future studies to address whether successfully coping, being optimistic, being resilient, and being religious build upon each other, and other variables that are typically associated with quality of life in other populations. These populations might include a larger African American female

sample, a sample which includes both elderly African American males and females, or a more randomized sample of all the aging.

Selected associations between coping and quality of life were found in this sample, suggesting a more complex relationship between these variables than may be currently understood. However, planning was the most predictive of quality of life, while optimism, resilience, and religiousness were positively correlated with quality of life. There are studies that support these associations between these positive psychological factors and quality of life (Clancey, & Bierman, 2000; DiPietro, 2001; Motl, & Diener, 2003; Schrimshaw, & Seigel, 2003). However, little research has focused on all four of these positive psychological factors together. These findings justify more research on these positive psychological factors with a focus on planning in health education and behavioral interventions.

In the future, more cross-sectional studies and longitudinal studies are needed to explore relationships among the positive psychological factors as predictors of quality of life. Cross-sectional studies will allow for fast and inexpensive research as well as provide convenience for analyzing networks of linked variables like the positive psychological factors. Longitudinal studies will help establish true cause and effect relationships between the variables. In addition, like this study, future investigations should employ multivariate approaches to assess the relative and independent contributions of these factors to quality of life which may be helpful in designing health education intervention strategies.

Most experts conceptualize resilience as a fluid process rather than a fixed one (Rutter, 1990). This means that individuals who demonstrate resilience in one life station

or stage may or may not do so in another. This concept is particularly salient for elderly people. Resiliency was an important predictor of quality of life in this study. For this reason, researchers in gerontology need to be more understanding of the unique dynamics of resilience at this life stage because a person who appears to be resilient in childhood will not necessarily be so in old age, and others who might have seemed vulnerable early in life exhibit resiliency in their later years (Glantz, & Johnson, 1999).

It is important that health educators as well as other health care providers recognize that the black community in the United States encompasses a great diversity of cultures (Mullings, 1985) and that elderly African American women may have strong traditional and cultural values. The level of diversity in the behaviors and attitudes of older African American adults confirms the heterogeneity of this population group. Findings from this study underscore the need for additional studies of social-role perceptions and behaviors, and their relationship to functional aspects of the lives of older black adults. The operation of the health care system may be affected by the cultural appropriateness of interventions for ethnic minority populations. Therefore, staff and researchers working with ethnically diverse communities need to be culturally competent and would benefit from possessing knowledge of the basic customs and cultural beliefs of those they serve prior to developing and implementing health education and behavioral interventions. For instance, attention was given to cultural competency in this study and may have helped with recruitment efforts. With this understanding, health educators can play a vital role in helping individuals address health needs in aging populations of different ethnicities.

Another important point for health educators to recognize is that aging African American women have strong religious beliefs. In this study, religiousness was an important positive psychological factor. More than 80 percent attended church once or more each week. Older black adults view the role of religion and religious institutions as multidimensional (Ellison, 1991) and as providing emotional and personal support in addition to spiritual guidance. For this reason, health education program designers need to be more considerate of this dynamic (Post, Puchalski, & Larson, 2000) and may want to develop programs specifically tailored for elderly black women who attend church.

Limitations of the Study

Sampling

There was an inherent selection bias in this sample because participants were drawn from adult living communities. Aging African American women who did not live in senior residential centers were not included. Those females who care for their homes or grandchildren during the day or those working long hours were not included in the sample. In addition, aging African American women who were enrolled at senior community centers were more likely to be mentally healthy and perform better with higher scores on the survey instruments used in the study.

The nonprobability sampling approaches of convenience and purposive sampling were used in this study. Only aging African American women who were 65 years of age and older were asked to participate. Therefore the study had a gender and age bias in representing the African American population. The rationale for this selection was that historically women have not been included in research studies and African Americans

have not been included in research studies. As such there was not as much information about older African-American women currently available. This study helped to close this information gap.

Study Design

The cross-sectional research design provides information on a study's target population at a given time. However, variances due to the process of aging cannot be measured. Although this type of variance cannot be measured, identifying the particular cultural and historical conditions that shaped each of the study subjects would have been helpful in qualifying the variance. For example, a higher rate of church attendance among today's older adults (≥ 65 years old) than among aging adults (< 65 years old) probably reflected a change in social attitudes toward attending church, as opposed to an increased need for spiritual and religious life as one grows older.

The major limitation of cross-sectional studies occurs when differences among respondents were erroneously attributed to growing old. In this study, the perceptions of women aged 65 and older were examined. The findings revealed that aging African American women have a better quality of life because they employ certain positive psychological factors well. As a result, improved quality of life may have been misinterpreted as improving with age because the respondent had more time to use the skills. In fact, a better quality of life may be due to better environmental conditions and a strong network of family and friends, not to age. Other research designs, like the longitudinal study, have some success in distinguishing age from cohort effects (Matthew & Hughes, 2001). However, given time, financial and practical constraints, a longitudinal study design was not selected for this study. In addition, longitudinal study

designs, although necessary for understanding age changes, suffer from the possibility of subject attrition and the effects of measuring the same individual numerous times.

Validity Considerations

These were self-administered surveys and relied upon respondents' self-report. As a result, the data was subject to recall bias. The expectations of mortality (high attrition rates) were low to moderate. They were low because of the length of the study's time period and moderate because of the length of the entire survey. In addition, instruments with previously established validity and reliability were selected for use in this study, and were used extensively in the past with a variety of populations. However, when measuring the Brief COPE subscales for internal consistency, not all the scales were found to be internally consistent. Only six of the eleven subscales showed good reliability.

Survey Completion

A great deal of time and several visits were necessary to establish relationships with the residential directors and residents at the recruitment sites. Some participants stated the survey was too long, but not difficult to complete. It was important for the researcher to be present to ensure the self-administered surveys were completed. A few respondents had difficulty with reading or writing which hindered their ability to finish the questionnaire. In these cases ($n = 2$), the questions were read to the participant. The potential influence of this action by the interviewer may have created a potential source of error.

Studying Positive Psychological Factors

Research has not provided sufficient evidence for a complete understanding of how older African American women respond differently to life stress, the accumulated “wear and tear” of maturation. The study’s aim was to explore individual’s scores on four positive psychological factors as a means of understanding their cognitive response to life stress and its relation to quality of life. The scope of this investigation focused on aging African American women who were 65 years of age and older.

Both social and personal factors affect positive psychological processing; thus the availability of social supports is significant. Several studies supported the notion that having a good social support system means one is better able to cope and thus have an improved quality of life (Yasuda, et al., 1997; Sugisawa, Liang, & Lui, 1994; Penninx, et al., 1997). Not only should one consider the personal attributes of the individual, but also the family, other social supports, environmental factors, and policies (Smith & Prior, 1995). However, a person who must face a crisis alone may have used different coping strategies than one who has family and friends. Differences in responses to stress by older people with these different styles were expected.

This study only looked at personal characteristics on the individual level, so it did not measure the interaction with social factors that might stimulate or influence the variables of interest – coping, optimism, resilience, religiousness, and quality of life. This study focused on intrapersonal determinants of stress management. As a result, environmental factors and social supports that may stimulate or influence the outcome measure – quality of life, were not directly measured in the current study.

In addition, even though religiousness is often considered a very personal preference, it is often supported with social gathering and interaction. It should also be noted that there was an inherent bias in this study as much of the sample appeared to be church goers, missing elderly African American females who do not attend church.

Recommendations

Ethnic research regardless of the specific population studied is not easy to conduct. The research is often difficult because ethnic minority populations are small in number, research funding and the adequacy of funding are problematic, an adequate baseline of knowledge and theory is frequently missing, and cross-culturally valid measures and diagnostic procedures may not be readily available (Sue & Sue, 2003).

The health of ethnic minority group populations has received less attention in comparison to some other populations. More research with specific populations, like elderly African American women needs to be conducted. Furthermore, this specific study was conducted without research funding. Perhaps with funding, other research designs, like the longitudinal study which has had some success in distinguishing age from cohort effects (Matthew & Hughes, 2001), could be conducted to explore the relationships between coping, optimism, resilience, religiousness, and quality of life using a random sample with a larger sample.

In addition, considerations of minority women's health are not only fraught with vestiges of the historical relations discussed in chapter two, but also with additional issues related to social class. For both minority and majority women, feelings of mutual support may be inhibited by recollections of domestic servitude. This inhibition of feeling is supported by historical tenets that reinforce the socioeconomic foundations of

the women's health movement and the minority women's health movement. Therefore, it is recommended that researchers of these populations have a historical perspective and theoretic foundation before conducting any research with these populations.

Part of having a historical perspective is being more considerate of the cultural appropriateness of interventions for ethnic minority populations. As a result, more studies need to be performed with different ethnic populations in order to better define and measure coping, optimism, resilience, religiousness, and quality of life. Also, much of the recent research is descriptive. Future investigations of these phenomena should employ multivariate approaches to assess the relative and independent contributions of these factors to attitudes and beliefs about health and life stress.

Finally, it appears as if planning and resilience are two strong predictors of quality of life in this population. Therefore, strong consideration should be given to developing and implementing interventions that focus on strategies to improve planning and resilience to help individuals improve their quality of life.

Conclusion

Given older people's numerous experiences with life events, role loss, and environmental changes, it would appear that adaptation in old age should occur with relative ease. Indeed, in one sense, an individual who has reached age 75 or 80 has proved to be the most adaptable of his or her generation, since the ultimate proof of adaptation is survival. As evidenced thus far, older people continue to face challenges to their well-being in the form of personal and family illness, age-related declines in sensory and physiological function, and changes in their social and physical environments.

The purpose of this research was to examine the interrelationships among social demographic variables, positive psychological factors and quality of life measures. Of particular interest was the combination of the four positive psychological factors as predictive variables of quality of life and thus the potential for improved health outcomes among older African-American women. The central question the analysis addressed was: What is the effect of coping, optimism, resilience, and religiousness on quality of life among African-American women who are 65 years of age and older? Among these variables, planning, active coping, and resiliency appear to be more strongly associated with better quality of life outcomes. The adjusted R^2 value (.72) for the model identified that 72 percent of the variance was accounted for by the predictors in this regression model.

The W.I.S.D.O.M. Wheel – the conceptual framework behind the study – suggests that coping, optimism, resilience, and religiousness be combined to form one variable – positive adaptation. This finding of the linear regression provides support for the use of the term positive adaptation, the collection of all four positive psychological factors together, as a predictor of quality of life. Thus, to the extent that older people are capable of coping, optimism, resiliency, and religiousness, they will continue to adapt to change successfully and thus have a better quality of life.

APPENDICES

Appendix A:	Pretest Facilitation Guide Questions
Appendix B:	Description of Study Letter
Appendix C:	Recruitment Flyer
Appendix D:	Informed Consent Form
Appendix E:	Post Survey Qualitative Questions
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Appendix H:	Survey Instrument
Appendix I:	The Brief COPE Scale
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Appendix M:	The Quality of Life Scale
Appendix N:	Frequencies of Items on The Brief Cope
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Appendix R:	Zero Order Correlations of Age, Positive Psychological Factors and Quality of Life

These are questions to be asked of those participating in the pretest of the survey. The five pretest participants were representative of the study's target population and volunteered their services and time. In the first segment, questions are to be asked about their overall opinions of the entire document. Then specific questions are to be asked about each section. The aim of the pretest is to identify the actual time to complete the survey, the survey's acceptability, understandability, and order placement of sections.

Overall Impressions

1. What do you think about the time involved to complete the study?
2. What do you think about the reading level of this survey?
3. How easy or difficult was this survey to understand?
4. Was the font size large enough for easy readability?
5. What do you think about the order/placement of the sections?
6. Is there anything that you would change about this survey? If so, what?
7. What other comments do you have about the survey?

Section 1 – Demographics

1. Were any of the questions difficult to answer or questions you did not want to answer?
2. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Section 2 – Coping

1. How easy or difficult was this section of the survey to understand?
2. Did you have problems understanding the instructions for this section?
3. Did you understand the meanings of the selection choices?
4. Were any of the questions difficult to answer or questions you did not want to answer?
5. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Section 3 – Optimism

1. How easy or difficult was this section of the survey to understand?
2. Did you have problems understanding the instructions for this section?
3. Did you understand the meanings of the selection choices?
4. Were any of the questions difficult to answer or questions you did not want to answer?
5. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Section 4 – Resilience

1. How easy or difficult was this section of the survey to understand?
2. Did you have problems understanding the instructions for this section?
3. Did you understand the meanings of the selection choices?
4. Were any of the questions difficult to answer or questions you did not want to answer?
5. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Section 5 – Religiousness

1. How easy or difficult was this section of the survey to understand?
2. Did you have problems understanding the instructions for this section?
3. Did you understand the meanings of the selection choices?
4. Were any of the questions difficult to answer or questions you did not want to answer?
5. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Section 6 – Quality of Life

1. How easy or difficult was this section of the survey to understand?
2. Did you have problems understanding the instructions for this section?
3. Did you understand the meanings of the selection choices?
4. Were any of the questions difficult to answer or questions you did not want to answer?
5. Were there any questions or words that were confusing? Please identify them by item number and explain what was confusing.

Quality of Life In Aging African American Women

Dear Participant:

My name is Candace Parker and I am a graduate student at the University of Maryland in the Department of Public and Community Health. I am an African American interested in understanding how older women of color handle the stresses of life. My great grandmother and grandmothers have provided me with the inspiration to pursue this topic. This study will help researchers better understand how African American women deal with stress as they age. My research has been approved by the University's Institutional Review Board.

If you are an African American woman who is 65 years of age or older and you are willing to fill out the study survey, I would appreciate it greatly. Please know that the survey is completely anonymous. Please do not put any identifying information, such as your name, anywhere on the survey. No one other than study staff will see your responses. Findings will be reported for the entire group of participants; no individual information will be available.

Your participation is voluntary and you may choose to skip any item you do not wish to answer. It is likely the survey will take 20-25 minutes to complete. If you would like me to read the questions to you, I'd be happy to do that.

I hope you will participate in my research. Your input will be very valuable to this research. I couldn't do it without you. Because of you researchers may come to better understand factors that influence quality of life among aging African American women – a population and topic not commonly researched. Please do not hesitate to call me with any questions or comments you have about the study.

My contact information is:

Candace Parker
Department of Public & Community Health
2387 Health & Human Performance Bldg
University of Maryland
College Park, Maryland 20742
(301) 405 – 0919
cparker3@umd.edu

The University of Maryland's Institutional Review Board Office can be reached at (301) 405-4212 or irb@deans.umd.edu, if you have any questions about your rights as a research participant.

Thank you for participating in the study and helping me finish my doctoral degree.

Sincerely,

Candace Parker

HELP ME FINISH MY DOCTORAL DEGREE...

**AND REPRESENT WOMEN OF COLOR IN THIS
STUDY ABOUT QUALITY OF LIFE**

STUDY TITLE:	QUALITY OF LIFE AMONG AGING AFRICAN AMERICAN WOMEN
PURPOSE:	The purpose of this research is to understand how aging African American women perceive their quality of life. Specifically, we will be examining the effect of coping, optimism, resilience, and religiousness as it relates to quality of life.
AGENCY:	University of Maryland, College Park Department of Public & Community Health
WHO CAN PARTICIPATE:	Any African American woman who is 65 years of age or older.
WHAT DO YOU HAVE TO DO:	Simply answer questions about your quality of life. It will take 20-25minutes to complete.
CONFIDENTIALITY:	All the information collected in the study will be kept anonymous.
CONTACT:	Candace Parker, Doctoral Candidate University of Maryland Department of Public & Community Health 301-405-0919 or cparker3@umd.edu

THANK YOU.

Informed Consent Form

Project Title:	Quality of Life Among Aging African-American Women
Statement of Age of Subject:	You state that you are at least 65 years of age or older and wish to participate in a research study being conducted by Candace Parker under the supervision of Dr. Sharon Desmond in the Department of Public and Community Health at the University of Maryland, College Park.
Purpose:	The purpose of this research is to understand how aging African American women manage life stress. Specifically, we will be examining the effect of coping, optimism, resilience, and religiousness as it relates to quality of life.
Procedures:	The procedures involve a self-administered questionnaire. One section asks questions about demographic information. In the remaining sections you will be asked questions about quality of life. It will take between 20-30 minutes for you to complete the survey.
Confidentiality:	All information collected in this study is anonymous. The data you provide will be grouped with data others provide for reporting and presentation purposes and your name will not be used.
Risks:	You may experience some discomfort due to the questions that are asked about your life stress.
Benefits, Freedom to Withdraw, & Ability to Ask Questions:	This research study is not designed to help me personally but to help the investigator learn more how aging African American women manage life stress. You are free to ask questions or withdraw from participation at any time without penalty.

Contact Information of Investigators:	<p>Dr. Sharon M. Desmond Department of Public & Community Health 2376 Health & Human Performance Bldg. University of Maryland College Park, Maryland 20742 (301) 405-2526 desmond@umd.edu</p> <p>Candace Parker Department of Public & Community Health 1238 Health & Human Performance Bldg. University of Maryland College Park, Maryland 20742 (301) 405-0919 cparker3@umd.edu</p>
Contact Information Of Institutional Review Board:	<p>If you have any questions about your rights as a research subject or wish to report a research-related injury, please contact:</p> <p>Institutional Review Board Office University of Maryland College Park, Maryland 20742 (301) 405-0678 irb@deans.umd.edu</p>

Printed Name: _____

Signature: _____

Date: _____

These questions were asked of study participants who completed the survey. They were randomly selected. The responses were audio-taped and later transcribed to provide context for the quantitative portion of the study.

1. Are there any other ways that you can think of that you use to manage the stresses in your stress?
2. Do you believe that your life is close to ideal (based on your definition of ideal)? Why or why not?
3. Are you satisfied with your life? Why or why not?
4. If you could live your life over, what would you change to improve its quality?

Appendix F



UNIVERSITY OF
MARYLAND

INSTITUTIONAL REVIEW BOARD

2100 Lee Building
College Park, Maryland 20742-5121
301.405.4212 TEL 301.314.1475 FAX
irb@deans.umd.edu
www.umresearch.umd.edu/IRB

To: Dr. Sharon Desmond
Candace Parker
Department of Public and Community Health

From: Roslyn Edson, M.S., CIP *RE*
IRB Manager
University of Maryland, College Park

Re: IRB Application # 05-0643
Title: Quality of Life In Aging African American Women

Approval Date: December 20, 2005

Expiration Date: December 20, 2006

Type of Application: Initial

Type of Research: Nonexempt

Type of Review: Expedited

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with the University's IRB policies and procedures and 45 CFR 46, the Federal Policy for the Protection of Human Subjects. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Recruitment/Consent: For research requiring written informed consent, the IRB-approved and stamped informed consent document is enclosed. The IRB approval expiration date has been stamped on the informed consent document. Please keep copies of the consent forms used for this research for three years after the completion of the research.

Continuing Review: If you want to continue to collect data from human subjects or analyze data from human subjects after the expiration date for this approval, you must submit a renewal application to the IRB Office at least 30 days before the approval

QUALITY OF LIFE AMONG AGING AFRICAN AMERICAN WOMEN

Dear Participant:

This letter is to simply say thank you for participating in this study. The information provided by you and other aging African American women is very valuable. Because of you researchers may come to better understand the factors that influence quality of life among aging African American women – a population and topic that is not commonly researched. In addition to helping me complete my doctoral program, you will be helping researchers better understand how the positive psychological factors of coping, optimism, resilience, and religiousness influence quality of life. On the behalf of all those involved in this study, we say thank you.

Sincerely,

Candace Parker
Doctoral Candidate
University of Maryland
Department of Public and Community Health

Quality of Life In Aging African American Women

- The purpose of this study is to understand how aging African American women view their quality of life.
- There are six sections to complete.
- It should take 20-25 minutes to complete.

**THANK YOU FOR YOUR
HELP!**

Section 1

1. What is your date of birth? _____

2. What is the highest level of education that you have completed?
 - a. Grade School (8th grade)
 - b. High School (12th grade)
 - c. Bachelors of Arts (BA) or Bachelors of Science (BS)
 - d. Above a BA or BS

3. What is your marital status?
 - a. Married
 - b. Widowed
 - c. Divorced
 - d. Legally separated
 - e. Single, never married

4. What work status type describes what you do most?
 - a. Employment (Full time or Part time)
 - b. Unemployment
 - c. Retirement
 - d. Volunteering

5. In what country were you born? _____

Section 2

Please answer the following questions based on how YOU cope with problems. Think about what YOU usually do when you are under a great deal of stress. Then respond to each of the following items, using the choices listed below. Please answer every item. There are no “right” or “wrong” answers, so choose the best answer for YOU.

Answer choices:

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

6.	I turn to work or other activities to take my mind off things.	Not at all	A Little	Medium	A Lot
7.	I concentrating my efforts on doing something about the situation I'm in.	Not at all	A Little	Medium	A Lot
8.	I say to myself “this isn't real.”	Not at all	A Little	Medium	A Lot
9.	I use alcohol or other drugs to make myself feel better.	Not at all	A Little	Medium	A Lot
10.	I get emotional support from others.	Not at all	A Little	Medium	A Lot

11.	I give up trying to deal with it.	Not at all	A Little	Medium	A Lot
12.	I take action to try to make the situation better.	Not at all	A Little	Medium	A Lot
13.	I refuse to believe that it has happened.	Not at all	A Little	Medium	A Lot
14.	I say things to let my unpleasant feelings escape.	Not at all	A Little	Medium	A Lot
15.	I get help and advice from other people.	Not at all	A Little	Medium	A Lot
16.	I use alcohol or other drugs to help me get through it.	Not at all	A Little	Medium	A Lot
17.	I criticize myself.	Not at all	A Little	Medium	A Lot
18.	I try to come up with a strategy about what to do.	Not at all	A Little	Medium	A Lot
19.	I get comfort and understanding from someone.	Not at all	A Little	Medium	A Lot
20.	I give up attempting to cope.	Not at all	A Little	Medium	A Lot

21.	I make jokes about it.	Not at all	A Little	Medium	A Lot
22.	I express my negative feelings	Not at all	A Little	Medium	A Lot
23.	I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.	Not at all	A Little	Medium	A Lot
24.	I try to get advice or help from other people about what to do.	Not at all	A Little	Medium	A Lot
25.	I think hard about what steps to take.	Not at all	A Little	Medium	A Lot
26.	I blame myself for things that happened.	Not at all	A Little	Medium	A Lot
27.	I make fun of the situation.	Not at all	A Little	Medium	A Lot

Section 3

Please answer the following questions about yourself by circling the response you agree with most. There is no right or wrong answer. Please be as honest as you can.

28.	In certain times, I usually expect the best.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29.	It's easy for me to relax.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30.	If something can go wrong for me, it will.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
31.	I'm always optimistic about my future.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32.	I enjoy my friends a lot.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
33.	It's important for me to keep busy.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

34.	I hardly ever expect things to go my way.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35.	I don't get upset too easily.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36.	I rarely count on good things happening to me.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
37.	Overall, I expect more good things to happen to me than bad.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section 4

The following questions measure personal resources that help during times of struggle. Please answer the following questions about yourself by circling the response you agree with most. There is no right or wrong answer. Please, be as honest as you can.

		Disagree			Neutral	Agree		
		(1)			(4)			(7)
38.	When I make plans I follow through with them.	1	2	3	4	5	6	7
39.	I usually manage one way or another.	1	2	3	4	5	6	7
40.	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
41.	Keeping interested in things is important to me.	1	2	3	4	5	6	7
42.	I can be on my own if I have to.	1	2	3	4	5	6	7
43.	I feel proud that I have accomplished things in my life.	1	2	3	4	5	6	7
44.	I usually take things in stride.	1	2	3	4	5	6	7
45.	I am friends with myself.	1	2	3	4	5	6	7
46.	I feel that I can handle many things at a time.	1	2	3	4	5	6	7
47.	I am determined.	1	2	3	4	5	6	7
48.	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
49.	I take things one day at a time.	1	2	3	4	5	6	7
50.	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
51.	I have self-discipline.	1	2	3	4	5	6	7

		Disagree (1)			Neutral (4)	Agree (7)		
52.	I keep interested in things.	1	2	3	4	5	6	7
53.	I can usually find something to laugh about.	1	2	3	4	5	6	7
54.	My belief in myself gets me through hard times.	1	2	3	4	5	6	7
55.	In an emergency, I'm someone people generally can rely on.	1	2	3	4	5	6	7
56.	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
57.	Sometimes I make myself do thing whether I want to or not.	1	2	3	4	5	6	7
58.	My life has meaning.	1	2	3	4	5	6	7
59.	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
60.	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
61.	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
62.	It's okay if there are people who don't like me.	1	2	3	4	5	6	7

Section 5

The following questions are about your religiousness. Please choose the response that is best for you.

63. How often do you attend church, synagogue, or other religious meeting?	Never	Once a Year	2-3 times per year	2-3 times per month	Once a week	2-3 times per week
64. How often do you spend time in private religious activities, such as prayer, meditation, or Bible study?	Never	Once a Year	2-3 times per year	2-3 times per month	Once a week	2-3 times per week

The following questions are about your religiousness. Please choose the response that is best for you.

65. In my life, I experience the presence of the Divine.	Definitely Not True	Some-what Not True	No Difference	Some-what True	Definitely True
66. My religious beliefs are what really lie behind my whole approach to life.	Definitely Not True	Some-what Not True	No Difference	Some-what True	Definitely True
67. I try hard to carry my religion over into all other dealings in life.	Definitely Not True	Some-what Not True	No Difference	Some-what True	Definitely True

Section 6

This section asks for information about various aspects of your life. To answer each question put an (X) in the appropriate blank or circle the response that you think best describes YOUR situation. There is no right or wrong answer. Please answer all the questions and do not spend too much time on any one item.

68. Where do you live?

Do you own the place where you live or do you rent?

A house _____

An apartment _____

A room _____

Own _____

Rent _____

69. How many personal possessions do you have compared with other people?

More than almost anyone	More than most people	About average	Less than most people	Less than almost anyone
5	4	3	2	1

70. What is your personal or household (whichever is most relevant to you) gross annual income before tax?

More than \$56,000	\$41,000 - \$55,999	\$26,000 - \$40,999	\$11,000 - \$25,999	Below \$10,999

71. How many times have you seen a doctor over the past 3 months?

None	1-2 times	3-4 times	5-7 times	8 or more visits

72. Do you have any disabilities or medical conditions? (e.g. visual, hearing, physical health, etc.).

Yes _____ No _____

If yes please specify:

<i>Name of disability or medical condition</i>	<i>Extent of disability or medical condition</i>
e.g. Visual	Requires glasses for reading
Diabetes	Requires daily injections
Epilepsy	Requires daily medication

73. What regular medications do you take each day?

None _____

Or

Name(s) of medication(s)

74. How many hours do you spend on the following each week?
(Average over past 3 months)

	0 hours	1-10 hours	11-20 hours	21-30 hours	31-40+ hours
Hours paid work					
Hours formal education					
Hours unpaid child care					

75. In your spare time, how often do you have nothing much to do?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

76. On *average*, how many hours TV do you watch each day?

None	1-2 hours	3-5 hours	6-9 hours	10 or more hours

77. How often do you talk with a close friend?

Daily	Once a month	Several	Less than once a month	Once a week
5	4	3	2	1

78. If you are feeling sad or depressed, how often does someone show they care for you?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

79. If you want to do something special, how often does someone else want to do it with you?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

80. How often do you sleep well?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

81. Are you safe at home?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

82. How often are you worried or anxious during the day?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

83. Below is a list of leisure activities. Indicate how often in an average month you attend or do each one for your enjoyment (not employment).

	Activity	Number of times per month
1	Go to a club/group/society	
2	Go to a hotel/bar/pub	
3	Watch live sporting events (Not on TV)	
4	Go to a place of worship	
5	Chat with neighbors	
6	Eat out	

	Activity	Number of times per month
7	Go to a movie	
8	Visit family or friend	
9	Play sport or go to a gym	
10	Other (please describe)	

84. Do you hold an unpaid position of responsibility in relation to any club, group, or society?

Yes _____ No _____ If no, go to question (c)

If yes, please indicate the highest level of responsibility held:

_____ Committee Member
 _____ Committee Chairperson
 _____ Secretary/Treasurer
 _____ Group President, Chairperson

85. How often do people *outside your home* ask for your help or advice?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

86. How often can you do the things you *really* want to do?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

87. When you wake up in the morning, how often do you wish you could stay in bed *all day*?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

88. How often do you have wishes that cannot come true?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

89. In comparison to other women your age, how would you rate your satisfaction with your quality of life?

Excellent	Very Good	Good	Fair	Poor
5	4	3	2	1

90. Do you think your quality of life has changed in the past five years compared to ten years ago? Yes No

If yes, how?

Appendix I

The Brief COPE Scale

Please answer the following questions based on how YOU cope with problems. Think about what YOU usually do when you are under a great deal of stress. Then respond to each of the following items, using the choices listed. Please answer every item. There are no “right” or “wrong” answers, so choose the best answer for YOU.

Answer choices:

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot

	Not at all (1)	A Little (2)	Medium (3)	A Lot (4)
1. I turn to work or other activities to take my mind off things.	1	2	3	4
2. I concentrating my efforts on doing something about the situation I'm in.	1	2	3	4
3. I say to myself "this isn't real."	1	2	3	4
4. I use alcohol or other drugs to make myself feel better.	1	2	3	4
5. I get emotional support from others.	1	2	3	4
6. I give up trying to deal with it.	1	2	3	4
7. I take action to try to make the situation better.	1	2	3	4
8. I refuse to believe that it has happened.	1	2	3	4
9. I say things to let my unpleasant feelings escape.	1	2	3	4
10. I get help and advice from other people.	1	2	3	4
11. I use alcohol or other drugs to help me get through it.	1	2	3	4
12. I try to see it in a different light, to make it seem more positive.	1	2	3	4

		Not at all (1)	A Little (2)	Medium (3)	A Lot (4)
13.	I criticize myself.	1	2	3	4
14.	I try to come up with a strategy about what to do.	1	2	3	4
15.	I get comfort and understanding from someone.	1	2	3	4
16.	I give up attempting to cope.	1	2	3	4
17.	I look for something good in what is happening.	1	2	3	4
18.	I make jokes about it.	1	2	3	4
19.	I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
20.	I accept the reality of the fact that it has happened.	1	2	3	4
21.	I express my negative feelings.	1	2	3	4
22.	I try to find comfort in my religion or spiritual beliefs.	1	2	3	4
23.	I try to get advice or help from other people about what to do.	1	2	3	4
24.	I learn to live with it.	1	2	3	4
25.	I think hard about what steps to take.	1	2	3	4
26.	I blame myself for things that happened.	1	2	3	4
27.	I pray or meditate.	1	2	3	4
28.	I make fun of the situation.	1	2	3	4

Appendix J

Life Oriented Test (Optimism Scale)

Please answer the following questions about yourself by circling the response with which you are in agreement most. There is no right or wrong answer. Please be as honest as you can.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	In certain times, I usually expect the best.	0	1	2	3	4
2.	It's easy for me to relax.	0	1	2	3	4
3.*	If something can go wrong for me, it will.	0	1	2	3	4
4.	I'm always optimistic about my future.	0	1	2	3	4
5.	I enjoy my friends a lot.	0	1	2	3	4
6.	It's important for me to keep busy.	0	1	2	3	4
7.*	I hardly ever expect things to go my way.	0	1	2	3	4
8.	I don't get upset too easily.	0	1	2	3	4
9.*	I rarely count on good things happening to me.	0	1	2	3	4
10.	Overall, I expect more good things to happen to me than bad.	0	1	2	3	4

* These items were reversed prior to scoring

Appendix K Resilience Scale

The following questions measure personal resources that help during times of struggle. Please answer the following questions about yourself by circling the response you agree with most. There is no right or wrong answers. Please, be as honest as you can.

		Disagree			Neutral		Agree	
		(1)	2	3	(4)	5	6	(7)
1.	When I make plans I follow through with them.	1	2	3	4	5	6	7
2.	I usually manage one way or another.	1	2	3	4	5	6	7
3.	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4.	Keeping interested in things is important to me.	1	2	3	4	5	6	7
5.	I can be on my own if I have to.	1	2	3	4	5	6	7
6.	I feel proud that I have accomplished things in my life.	1	2	3	4	5	6	7
7.	I usually take things in stride.	1	2	3	4	5	6	7
8.	I am friends with myself.	1	2	3	4	5	6	7
9.	I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10.	I am determined.	1	2	3	4	5	6	7
11.	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12.	I take things one day at a time.	1	2	3	4	5	6	7
13.	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14.	I have self-discipline.	1	2	3	4	5	6	7
15.	I keep interested in things.	1	2	3	4	5	6	7
16.	I can usually find something to laugh about.	1	2	3	4	5	6	7
17.	My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18.	In an emergency, I'm someone people generally can rely on.	1	2	3	4	5	6	7
19.	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20.	Sometimes I make myself do thing whether I want to or not.	1	2	3	4	5	6	7
21.	My life has meaning.	1	2	3	4	5	6	7
22.	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23.	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24.	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25.	It's okay if there are people who don't like me.	1	2	3	4	5	6	7

Appendix L Religiousness Scale

The following questions are about your religiousness. Please answer the questions as indicated.

	Never	Once/ Year	2-3 times/ year	2-3 times/ month	Once/ week	2-3 times/ week
1. How often do you attend church, synagogue, or other religious meeting?	1	2	3	4	5	6
2. How often do you spend time in private religious activities, such as prayer, meditation, or Bible study?	1	2	3	4	5	6
	Definitely Not True	Somewhat Not True	No Difference	Somewhat True	Definitely True	
3. In my life, I experience the presence of the Divine.	1	2	3	4	5	
4. My religious beliefs are what really lie behind my whole approach to life.	1	2	3	4	5	
5. I try hard to carry my religion over into all other dealings in life.	1	2	3	4	5	

This section asks for information about various aspects of your life. To answer each question put an (X) in the appropriate blank or circle the response that you think best describes YOUR situation. There is no right or wrong answer. Please answer all the questions and do not spend too much time on any one item.

1(a) Where do you live?

A house _____
 A apartment _____
 A room _____

Do you own the place where you live or do you rent?

Own _____
 Rent _____

1(b) How many personal possessions do you have compared with other people?

More than almost anyone	More than most people	About average	Less than most people	Less than almost anyone
5	4	3	2	1

1(c) What is your personal or household (whichever is most relevant to you) gross annual income before tax?

More than \$56,000	\$41,000 - \$55,999	\$26,000 - \$40,999	\$11,000 - \$25,999	Below \$10,999

2(a) How many times have you seen a doctor over the past 3 months?

None	1-2 times	3-4 times	5-7 times	8 or more visits

2(b) Do you have any disabilities or medical conditions? (e.g. visual, hearing, physical health, etc.).

Yes _____ No _____

If yes please specify:

<i>Name of disability or medical condition</i>	<i>Extent of disability or medical condition</i>
e.g. Visual	Requires glasses for reading
Diabetes	Requires daily injections
Epilepsy	Requires daily medication

2(c) What regular medications do you take each day?

If none tick the blank _____

Or

Name(s) of medication

3(a) How many hours do you spend on the following each week? (Average over past 3 months)

	0 hours	1-10 hours	11-20 hours	21-30 hours	31-40+ hours
Hours paid work					
Hours formal education					
Hours unpaid child care					

3(b) In your spare time, how often do you have nothing much to do?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

3(c) On *average*, how many hours TV do you watch each day?

None	1-2 hours	3-5 hours	6-9 hours	10 or more hours

4(a) How often do you talk with a close friend?

Daily	Once a month	Several	Less than once a month	Once a week
5	4	3	2	1

4(b) If you are feeling sad or depressed, how often does someone show they care for you?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

4(c) If you want to do something special, how often does someone else want to do it with you?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

5(a) How often do you sleep well?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

5(b) Are you safe at home?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

5(c) How often are you worried or anxious during the day?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

6(a) Below is a list of leisure activities. Indicate how often in an average month you attend or do each one for your enjoyment (not employment).

	Activity	Number of times per month
1	Go to a club/group/society	
2	Go to a hotel/bar/pub	
3	Watch live sporting events (Not on TV)	
4	Go to a place of worship	
5	Chat with neighbors	
6	Eat out	
7	Go to a movie	
8	Visit family or friend	
9	Play sport or go to a gym	
10	Other (please describe)	

6(b) Do you hold an unpaid position of responsibility in relation to any club, group, or society?

Yes _____ No _____ If no, go to question (c)

If yes, please indicate the highest level of responsibility held:

_____ Committee Member
 _____ Committee Chairperson
 _____ Secretary/Treasurer
 _____ Group President, Chairperson

6(c) How often do people *outside your home* ask for your help or advice?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

7(a) How often can you do the things you *really* want to do?

Almost always	Usually	Sometimes	Not Usually	Almost never
5	4	3	2	1

7(b) When you wake up in the morning, how often do you wish you could stay in bed *all day*?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

7(c) How often do you have wishes that cannot come true?

Almost always	Usually	Sometimes	Not Usually	Almost never
1	2	3	4	5

Item	Not at all N (%)	A Little	Medium	A Lot
Self Distraction				
Q6. I turn to work or other activities to take my mind off things.	14 (7.7)	84 (46.2)	35 (19.2)	49 (26.9)
Q23. I do something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping.	7 (3.8)	85 (46.7)	48 (26.4)	42 (23.1)
Active Coping				
Q7. I concentrating my efforts on doing something about the situation I'm in.	7 (3.8)	57 (31.3)	70 (38.5)	48 (26.4)
Q12. I take action to try to make the situation better.	6 (3.3)	71 (39.0)	34 (18.7)	71 (39.0)
Denial				
Q8. I say to myself "this isn't real."	50 (27.5)	48 (26.4)	41 (22.5)	43 (23.6)
Q13. I refuse to believe that it has happened.	68 (37.3)	86 (47.3)	20 (11.0)	8 (4.4)
Substance Abuse				
Q9. I use alcohol or other drugs to make myself feel better.	163 (89.6)	12 (6.6)	7 (3.8)	0
Q16. I use alcohol or other drugs to help me get through it.	168 (92.3)	14 (7.7)	0	0
Emotional Support				
Q10. I get emotional support from others.	14 (7.7)	91 (50)	42 (23.1)	35 (19.2)
Q19. I get comfort and understanding from someone.	7 (3.8)	105 (57.7)	63 (34.6)	7 (3.8)
Behavioral Disengagement				
Q 11. I give up trying to deal with things.	91 (50)	70 (38.5)	15 (8.2)	6 (3.3)
Q20. I give up attempting to cope.	98 (53.8)	64 (35.2)	20 (11.0)	0
Venting				
Q14. I say things to let my unpleasant feelings escape.	35 (19.2)	85 (46.7)	33 (18.1)	29 (16.0)
Q22. I express my negative feelings.	28 (15.4)	119 (65.4)	21 (11.5)	14 (7.7)
Instrumental Support				
Q15. I get help and advice from other people.	6 (3.3)	112 (61.5)	50 (27.5)	14 (7.7)
Q 24. I try to get advice or help from other people about what to do.	20 (11.0)	105 (57.7)	43 (23.6)	14 (7.7)

Item	Not at all N (%)	A Little	Medium	A Lot
Self Blame				
Q17. I criticize myself.	44 (24.2)	119 (65.4)	13 (7.1)	6 (3.3)
Q26. I blame myself for things that happened.	46 (25.3)	106 (58.3)	15 (8.2)	15 (8.2)
Planning				
Q 18. I try to come up with a strategy about what to do.	9 (4.9)	40 (22.0)	63 (34.6)	70 (38.5)
Q25. I think hard about what steps to take.	21 (11.5)	56 (30.8)	27 (14.8)	78 (42.9)
Humor				
Q21. I make jokes about it.	62 (34.1)	113 (62.1)	7 (3.8)	0
Q27. I make fun of the situation.	63 (34.6)	98 (53.4)	21 (11.5)	0

Appendix O

Frequencies of Items for Optimism

Item	Strongly Disagree N (%)	Disagree	Neutral	Agree	Strongly Agree
Q28. In certain times, I usually expect the best.	7 (3.8)	7 (3.8)	35 (19.2)	105 (57.7)	28 (15.4)
Q29. It's easy for me to relax.	0	28 (15.4)	37 (20.4)	112 (61.5)	5 (2.7)
Q30. If something can go wrong for me, it will.	7 (3.8)	35 (19.2)	50 (27.5)	83 (45.7)	7 (3.8)
Q31. I'm always optimistic about my future.	14 (7.7)	12 (6.6)	42 (23.1)	79 (43.4)	35 (19.2)
Q32. I enjoy my friends a lot.	0	5 (2.7)	28 (15.4)	79 (43.4)	70 (38.5)
Q33. It's important for me to keep busy.	0	7 (3.8)	14 (7.7)	112 (61.5)	49 (26.9)
Q34. I hardly ever expect things to go my way.	28 (15.4)	69 (38.0)	36 (19.8)	36 (19.8)	13 (7.0)
Q35. I don't get upset too easily.	7 (3.8)	19 (10.5)	35 (19.2)	79 (43.4)	42 (23.1)
Q36. I rarely count on good things happening to me.	37 (20.3)	78 (42.9)	28 (15.4)	33 (18.1)	6 (3.3)
Q37. Overall, I expect more good things to happen to me than bad.	0	0	19 (10.5)	85 (46.7)	78 (42.8)

Appendix P

Frequencies of Items for Resilience

Item	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
Q38. When I make plans I follow through with them.	7 (3.8)	0	7 (3.8)	7 (3.8)	21 (11.5)	105 (57.7)	35 (19.2)
Q39. I usually manage one way or another.	0	5 (2.7)	0	0	22 (12.1)	120 (66.0)	35 (19.2)
Q40. I am able to depend on myself more than anyone else.	0	6 (3.3)	7 (3.8)	0	19 (10.4)	93 (51.2)	57 (31.3)
Q41. Keeping interested in things is important to me.	0	0	0	0	11 (6.0)	86 (47.3)	85 (46.7)
Q42. I can be on my own if I have to.	0	7 (3.8)	0	0	7 (3.8)	70 (38.5)	98 (53.8)
Q43. I feel proud that I have accomplished things in my life.	0	0	0	0	8 (4.4)	41 (22.5)	133 (73.1)
Q44. I usually take things in stride.	0	0	0	15 (8.2)	13 (7.1)	120 (66.0)	34 (18.7)
Q45. I am friends with myself.	0	0	0	7 (3.8)	7 (3.8)	119 (65.4)	49 (26.9)
Q46. I feel that I can handle many things at a time.	0	7 (3.8)	7 (3.8)	7 (3.8)	35 (19.2)	105 (57.5)	21 (11.5)
Q47. I am determined.	0	0	0	6 (3.3)	14 (7.7)	112 (61.5)	50 (27.5)
Q48. I seldom wonder what the point of it all is.	7 (3.8)	21 (11.5)	7 (3.8)	14 (7.7)	35 (19.2)	70 (38.5)	28 (15.4)
Q49. I take things one day at a time.	0	0	7 (3.8)	19(10.4)	0	100 (55.0)	56(30.8)

Appendix P

Frequencies of Items for Resilience (continued)

Item	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
Q50. I can get through difficult times because I've experienced difficulty before.	0	0	0	7 (3.8)	14 (7.7)	105 (57.7)	56 (30.8)
Q51. I have self-discipline.	0	0	0	14 (7.7)	14 (7.7)	126 (69.2)	28 (15.4)
Q52. I keep interested in things.	0	0	7 (3.8)	5 (2.7)	7 (3.8)	127 (69.9)	36 (19.8)
Q53. I can usually find something to laugh about.	0	0	0	7 (3.8)	28 (15.4)	119 (65.4)	28 (15.4)
Q54. My belief in myself gets me through hard times.	0	0	5 (2.7)	0	7 (3.8)	100 (55.0)	70(38.5)
Q55. In an emergency, I'm someone people generally can rely on.	0	6 (3.3)	0	0	15 (8.2)	105 (57.7)	56 (30.8)
Q56. I can usually look at a situation in a number of ways.	5 (2.7)	0	0	9 (4.9)	33 (18.1)	98 (54.0)	37 (20.3)
Q57. Sometimes I make myself do thing whether I want to or not.	7 (3.8)	0	0	9 (4.9)	26 (14.4)	91 (50)	49 (26.9)
Q58. My life has meaning.	0	0	0	0	8 (4.4)	105 (57.7)	69 (37.9)
Q59. I do not dwell on things that I can't do anything about.	0	6 (3.3)	7 (3.8)	5 (2.7)	23 (12.7)	101 (55.5)	40 (22.0)
Q60. When I'm in a difficult situation, I can usually find my way out of it.	0	13 (7.1)	0	0	22 (12.1)	91 (50)	56 (30.8)

Appendix P

Frequencies of Items for Resilience (continued)

Item	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
Q61. I have enough energy to do what I have to do.	0	7 (3.8)	0	8 (4.4)	27 (14.8)	106 (58.3)	34 (18.7)
Q62. It's okay if there are people who don't like me.	7 (3.8)	13 (7.1)	19 (10.4)	14 (7.7)	14 (7.7)	73 (40.2)	42 (23.1)

Appendix Q

Frequencies of Items for Religiousness

Religious Behavior						
Item	Never	Once/ yr	2-3x/ yr	2-3x/ mo	Once/ wk	2-3x/ wk
Q63. How often do you attend church or other religious meeting?	0	7 (3.8)	7 (3.8)	21 (11.5)	84 (46.2)	63 (34.6)
Q64. How often do you spend private time in private religious activities?	0	13 (7.1)	33 (18.1)	0	37 (20.3)	99 (54.5)
Religious Motivation						
Item	Definitely Not True	Somewhat Not True	No Difference	Somewhat True	Definitely True	
Q65. In my life, I experience the presence of the Divine.	0	6 (3.3)	8 (4.4)	49 (26.9)	119 (65.4)	
Q66. My religious beliefs are what really lie behind my whole approach to life	0	19 (10.4)	14 (7.7)	49 (26.9)	100 (55.0)	
Q67. I try hard to carry my religion over into all other dealings in life	5 (2.7)	13 (7.1)	8 (4.4)	57 (31.3)	99 (54.5)	

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