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A comparison of caregiving self-efficacy, stress, social support, coping, depression, and life satisfaction among African-American and White-American female caregivers of elder bedbound patients.

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A COMPARISON OF CAREGIVING SELF-EFFICACY, STRESS, SOCIAL SUPPORT, COPING, DEPRESSION, AND LIFE SATISFACTION AMONG AFRICAN AMERICAN AND WHITE AMERICAN FEMALE CAREGIVERS OF ELDER BEDBOUND PATIENTS

by

NORMA G. CUELLAR

A DISSERTATION

Submitted to the graduate faculty of The University of
Alabama at Birmingham, in partial fulfillment of
the requirements for the degree of
Doctor of Science in Nursing

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ABSTRACT OF DISSERTATION
GRADUATE SCHOOL, UNIVERSITY OF ALABAMA AT BIRMINGHAM

Degree DSN Program Adult Health Nursing

Name of Candidate Norma G. Cuellar

Committee Chair Linda L. Davis

Title Comparison of Caregiving Self-Efficacy, Stress, Social Support, Coping, Depression, and Life Satisfaction Among African American and White American Female Caregivers of Elder Bedbound Patients

The purpose of this study was to compare White American and African American female caregivers of bedbound patients on the caregiver's (a) caregiving self-efficacy related to functional limitations of the bedbound elder, (b) perceived stress based on those functional limitations, (c) perception of social support, (d) coping, (e) level of depression, and (f) reported life satisfaction. Bandura's Self-Efficacy Theory and Lazarus' Stress and Coping Theory were used to guide the study.

A purposive sample of 76 African American and White American female caregivers of elder bedbound patients with a diagnosis of Cerebral Vascular Accident (CVA) was obtained through home health agencies in southern Mississippi. Seven instruments were administered to the caregivers in their homes. Each caregiver reported the bedbound elder's functional impairments along with the caregiver's stress, self-efficacy, social support, coping, depression, and life satisfaction. Statistical analysis determined significant differences of self-efficacy between the races. Interactions existed between race and caregiving self-efficacy on the variables of stress and life satisfaction.

Future research should include exploring caregiving differences among other racial groups of caregivers as well as an attempt to develop interventions that reduce the isolation that rural caregivers often experience. Research recommendations also include longitudinal studies to look at changes in stress, self-efficacy, social support, coping, depression, and life satisfaction over time in caregivers of bedbound elders.

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And of course, I must thank my family. All of my 5 sisters continuously supported me in all my efforts while I pursued my dream. Martha was always there to watch my son whenever I needed. My father was also very proud of me and provided any support I needed. My mom will never see my accomplishments, but I know that she will always be with me in spirit, and as I cross the stage on December 7, I will hear her words of faith "I knew you could do it."

Last but not least, I would like to thank my son, Matthew. May he always know how much I love him and wanted this for him, as well as for myself. I pray that I serve him well as a role model, that he may learn from me that perseverance, honesty, hope, and love will always get you through difficult times.

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CHAPTER 1

INTRODUCTION

Caregivers play a significant role in providing care for older patients who become dependent due to chronic illnesses. These chronic illnesses cause functional limitations and can lead to a bedbound status and require total care. Whether a caregiver feels confident about caring for a bedbound patient and how the caregiver copes can influence patient outcomes, including home care quality and institutionalization decisions. Racial differences can influence caregiving confidence and coping styles (Burton et al., 1995; Hinrichsen & Ramirez, 1992; Lawton, Rajagopal, Brody, & Kleban, 1992; Wood & Parham, 1990). These differences must be considered when nurses assess, plan, and implement interventions for caregiving families. The focus of this study was to determine whether there was a difference in caregiving self-efficacy, stress, social support, coping, depression, and life satisfaction among African American and White American caregivers of elderly, bedbound patients. This chapter discusses an overall view of elders and informal caregivers, the problems of caregivers of bedbound elders, the purpose of the study, the research questions, the theoretical framework, the assumptions, and the significance of the study.

The increasing number of elderly in our country will influence the way health care is provided in the future. Since 1900, the number of Americans 65 years of age and older has increased from 3.1 million to 32.3 million (Fowles, 1993). Life expectancy has increased to 84 years for females and 80 years for males. The death rate for the 65 and older age group has fallen over the last 40 years by 29% (Biegel, Sales, & Schulz, 1991). The number of older Americans will continue to grow with the most rapid increase expected to occur between 2010 and 2030 when the baby boomers reach age 65. By the year 2030, there will be approximately 70 million individuals over age 65, more than twice the number in 1990, representing 20% of the population. Twenty-five percent of the over 65 age group will come from minority populations (Fowles, 1993). As the population ages, chronic illnesses and bedbound status will also increase.

In 1992, 4 million individuals over 65 were below the poverty level. Eleven percent of elderly White Americans were poor or near poor, compared to 33% of elderly African Americans, and 22% of elderly Hispanics. Two thirds of noninstitutionalized individuals over 65 years lived in a family setting with a spouse, children, siblings, relatives, or nonrelatives. Only 5% of the population over 65 years old lived in nursing homes (Fowles, 1993). The percentage in nursing homes increases as age increases; the older a person, the more likely the person will be institutionalized. Of the 65 and older age group, 37.5%

have limitations caused by chronic illness. Adult patients receiving care in the home most often are those with chronic illnesses such as cancer, heart disease, stroke, Alzheimer's Disease, or chronic mental illness (Biegel et al., 1991).

As the population ages, the cost of care for the elderly will increase. Americans 65 and older accounted for 36% of total personal health care expenditures averaging $5,360 per year for each older person, more than four times the amount spent for younger individuals (Fowles, 1993). Nursing home expenditures have increased from $4.7 billion in 1970 to $56 billion in 1990 (Biegel et al., 1991), and an estimated cost of $54 to $80 billion per year is spent on physically frail elder individuals (Tennstedt & McKinlay, 1994). With concerns for health care costs and an increasing number of elders predicted, more family members will become informal caregivers in the home.

Informal Caregivers

Informal caregiving to the homebound can be rewarding; however, many consequences of informal caregiving can be negative. Informal caregivers, usually women, often are faced with challenging tasks that can lead to long-term effects like "caregiver burnout" and institutionalization of the patient. If informal caregivers are not available, patients will have to be admitted into extended care facilities or nursing homes, resulting in overwhelming costs to the public sector. Informal care, caregiving in the home, will be less available in the future because of the unmet needs of this growing population of dependent elderly (Tennstedt, McKinlay, & Kasten, 1994). These unmet needs result in feelings of loneliness, depression, guilt, financial worries, fear, and isolation, often reported by caregivers.

However, all caregivers do not have negative feelings about caregiving. The support caregivers get from friends and family can affect caregiving outcomes for the patient. The relationship between the caregiver and patient before the illness also has a direct effect on feelings the caregiver has about caregiving (Smith, Smith, & Toseland, 1991).

To avoid hospitalization and institutionalization, additional ways to keep patients in the home with families should be identified. The advantages of home care include emotional support from family, pets, friends, and neighbors in a naturalistic setting. The home setting allows privacy and control over a person's independence and the environment (Folden, 1990). The caregiver assumes an additional responsibility when caring for the patient in the home. Caregivers must maintain their own adequate emotional and physical health to defer the institutionalization of patients (Bergman-Evans, 1994; Cossette & Levesque, 1993; Decker & Young, 1991; Green, 1991; Guberman, Maheu, & Maille, 1992; Lindgreen, 1990; Smith et al., 1991).

African Americans, as compared to White Americans, have a higher incidence of chronic illnesses and disabilities. In particular, elderly African American women have been identified as being in quadruple jeopardy: African American, aged, female, and poor (Bennett, 1987; Gordon-Bradshaw, 1987; Padgett, 1988). Racial discrimination limited access to medical care for elderly African Americans when they were young (Hinrichsen & Ramirez, 1992). Limited access and availability lead to late diagnosis of disease, thereby, increasing impairment from the disease (Hinrichsen & Ramirez; Lauver, 1992).

Racial differences also can influence caregiving, and the response to caregiving tasks have been identified as diverse among different cultures. The predictors of caregiving burden for African American and White American caregivers are different as portrayed in the literature. African Americans report less depression and less role strain from informal caregiving than White Americans (Mui, 1992). Support from spiritual groups and extended families allow African American caregivers more respite time from their caregiving duties (Chatters, Taylor, & Jackson, 1985; Lawton et al., 1992; Wood & Parham, 1990). Thus, African Americans are less likely to institutionalize their elders (Lawton et al.). Recent literature on caregiving of Alzheimer's patients also suggests physical, emotional, and spiritual differences between races (Haley et al., 1996). Racial differences in coping also can affect the decision to institutionalize elders in a family (Lawton et al.).

Statement of the Problem

With the increased number of elderly individuals in the future, health care providers must be aware of how to foster care in the home for these patients. More of these elders will be sicker and require complicated, often bedbound, care in the home. Bedbound patients are the most difficult patients to care for and increase physical and emotional strain on caregivers. Often the patients must be turned, fed, lifted, and bathed, frequently without assistance from anyone but the caregiver, who also may be elderly and disabled. The caregivers' well-being is of concern because the consequence of stress, along with limited assistance and support, can adversely affect patients' outcomes, possibly resulting in institutionalization, neglect, or abuse of the elderly patient. Many caregivers of bedbound patients are isolated, receiving limited support from outside the home (Neundorfer, 1991). Caregivers are unable to leave the bedbound patient home alone and often have few respite services available, as the bedbound patient is totally dependent on the caregiver.

The literature on caring for bedbound patients in the home is scarce. There are few published reports comparing African American and White American caregivers of bedbound patients. Studies on institutionalized bedbound patients have focused primarily on the consequences of patient's immobility (Beck-Sague, Banerjee, & Jarvis, 1993; Kinnunen, 1991). The characteristics of the caregiver, along with the characteristics of the bedbound elder, must be identified. To be successful in caregiving and prevent burnout that may lead to institutionalization, caregivers must have confidence in their skills, as well as access to a support system that reduces stress and allows coping skills to decrease depression and increase life satisfaction.

The Purpose of the Study

The purpose of this study was to describe White American and African American female caregivers of bedbound patients on the caregiver's (a) caregiving self-efficacy, (b) perceived stress, (c) perception of social support, (d) coping, (e) level of depression, and (f) reported life satisfaction.

The Research Questions

The research questions of the study were as follows.

1. Is there a difference in caregiving self-efficacy between African American and White American female caregivers of bedbound patients controlling for relationship, socioeconomic status, stress, depression, and life satisfaction?

2. Is there a significant interaction between the race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's stress, controlling for relationship, socioeconomic status, depression, and life satisfaction?

3. Is there a significant interaction between the race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's social support, controlling for relationship, socioeconomic status, stress, depression, and life satisfaction?

4. Is there a significant interaction between the race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's coping, controlling for relationship, socioeconomic status, stress, depression, and life satisfaction?

5. Is there a significant interaction between the race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's depression, controlling for relationship, socioeconomic status, stress, and life satisfaction?

6. Is there a significant interaction between the race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's life satisfaction, controlling for relationship, socioeconomic status, stress, and depression?

Theoretical Framework

The theoretical framework for the study integrated Bandura's self-efficacy theory (Bandura, 1977a) with Lazarus' Stress and Coping Theory (Lazarus & Folkman, 1984). Lazarus's theory defines stress as demands (such as caregiving tasks) that exceed one's coping ability. Stress is manifested in a variety of behaviors and emotions

(Lazarus & Folkman). Self-appraisals, coping responses, and social support are factors that can predict the outcome of stress (Haley, Levine, Brown, & Bartolucci, 1987). For the purpose of this study, stressors included the level of dependency of the elder, bedbound patient on the caregiver to perform self-care. Self-efficacy is described as a cognitive, social and behavior skill organized into action for a certain purpose and is an indicator for predicting a given task. The caregivers' perceived stress and self-efficacy can determine the outcome of a task (Bandura, 1982). Stress and self-efficacy are influenced by racial differences and the availability of social support. The availability and use of social support may be important in coping with the stress of caregiving with consequences affecting depression and life satisfaction. The research model in Figure 1 was adapted from Haley, Levine, et al., 1987.

Stress, Appraisal, and Coping

Lazarus' theory of stress and coping identifies stress between an individual and the environment. Stressors include physiologic, psychologic, social, and environmental factors and are initiated by primary and secondary cognitive appraisals (Lazarus & Folkman, 1984). Primary appraisals involve the process of judging the significance of the stressor and its impact on one's well being. Secondary appraisals are the summations of feelings about the stressor or how one copes (Burchfield, 1985; Lazarus &

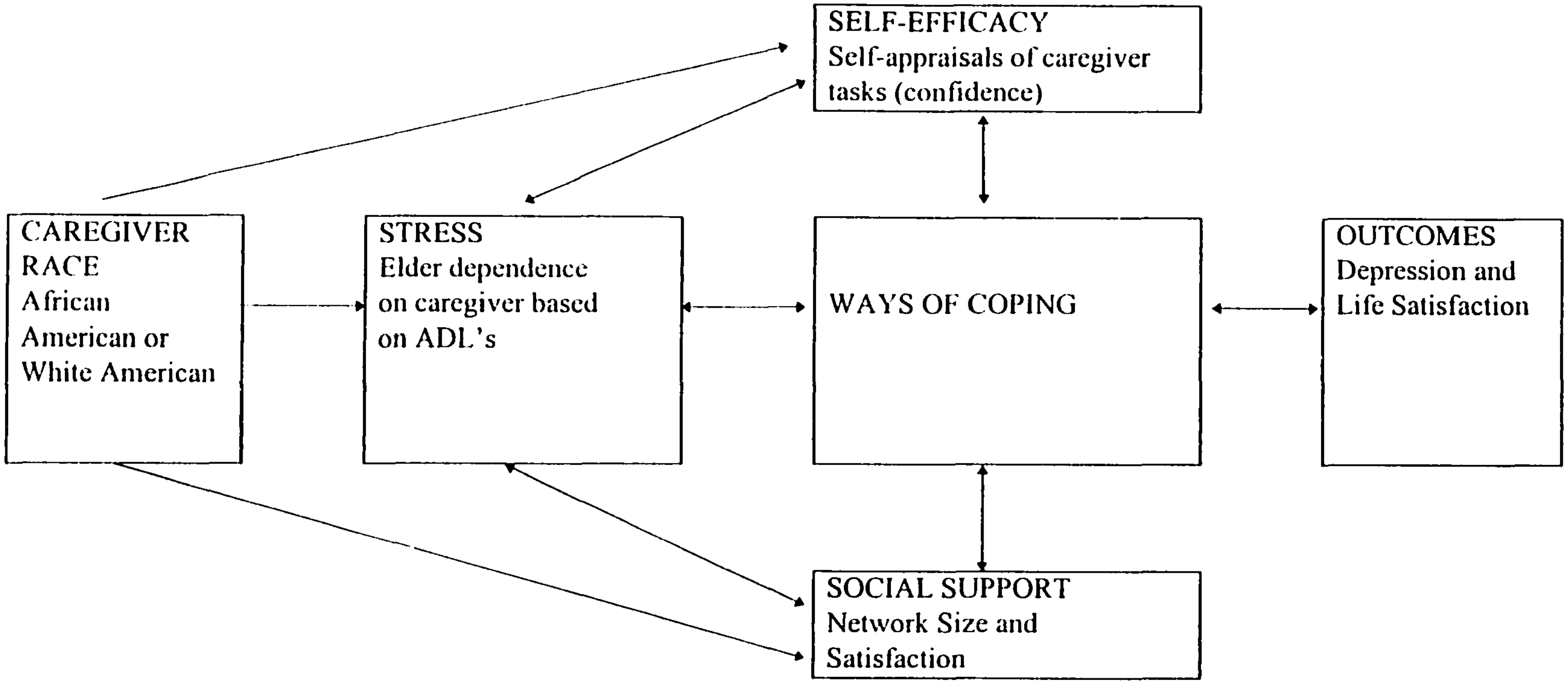

Figure 1. Theoretical model. ADL = Activities of daily living.

Folkman). Cognitive appraisals are used to evaluate stressful situations and the perceptions of the consequence of the event to personal well-being (Lazarus, 1991). A threat may exist when a person's perceived coping capabilities are inadequate and a significant negative consequence of the stressor exists (Bandura, 1993). For the purpose of this study, stress for the caregiver of the elder, bedbound patient was the elder's dependence on the caregiver for physiological care because of functional limitations.

Coping is a constantly changing cognitive and behavioral effort to manage external and internal demands. Resources for coping, also referred to as mediating variables, include social skills and support, material resources, beliefs, and commitments (Lindgreen, 1990). The way a person copes has a direct influence on psychological and emotional well-being (Lazarus, 1991). Ways of coping can be influenced by ethnic and cultural standards. Reactions to stressors depend on the meaning and significance of the culture with an assortment of expressions of feelings and emotions viewed as appropriate (Lazarus & Folkman, 1984).

Self-Efficacy

Self-efficacy is "a judgement of one's capability to accomplish a certain level of performance" (Bandura, 1986, p. 390). Other definitions of self-efficacy have appeared in the literature. Dilorio, Faherty, and Manteufel (1992) defined self-efficacy as "one's belief in one's capabilities to enact a certain behavior" (p. 293). Wigal, Creer, and Kotses (1991) defined self-efficacy as "the personal conviction people have regarding whether they feel they can successfully execute particular behaviors in order to produce certain outcomes" (p. 1193). Nugent, Hughes, Ball, and Davis (1992) defined self-efficacy in the family setting as "family's self-perceived competence in problem solving" (p. 11). Similarities in the terms reflect the original definition by Bandura (1977a).

The effect of self-efficacy beliefs on cognitive processes takes the form of self-appraisal of capabilities. Self-appraisals involving cognitive awareness of capabilities can determine goal attainment with a consequent outcome. High efficacy expectations yield positive, successful scenarios in life (Bandura, 1992). A strong sense of self-efficacy (confidence) is needed to remain task oriented and to be successful in accomplishing goals. When a person can predict the outcome of an event, a sense of control is created. Cognitive processes are also influenced by motivation (social support) and information processing operations.

Social Support

The reciprocal causation between motivation and action within a system (person and environment) can be influenced by verbal persuasion which can be seen as social support (Bandura, 1993). Self-efficacy beliefs may be self-aiding or hindering as personal goal setting is influenced by self-appraisals of capabilities. When faced with difficulties, people who have self-doubt about their capabilities may slacken or abort their efforts to complete a task.

Motivational processes determine the effort and perseverance to be exerted in a task. Self-doubt can set in quickly after a failure and when faced with self-doubt, a person will give up and settle for mediocrity. Positive well-being and motivation are associated with an optimistic sense of personal efficacy (Bandura, 1986). People who have doubts about a task will doubt their capabilities to complete the task and will give up. Through verbal persuasion of other persons, a person may be motivated or influenced on task performances. This verbal persuasion can be seen as social support. When a caregiver is unsuccessful at a caregiver task, the caregiver may not try as hard the next time because of a self-predicted failure. This may lead to poor patient care with potential unhealthy repercussions and possible long-term consequences of institutionalization.

Outcomes

If a caregiver believes in capabilities of caregiving tasks, a prediction of the task is created and a feeling of control with a positive scenario is set up every time the task is performed. Perceived self-efficacy influences all aspects of behavior and determines the effort of a task and the time spent in the persistence of a task (Bandura, 1989). Motivation and action are intertwined to determine an outcome and are concerned with self-judgments regarding skills possessed. The capacity to exercise control over a person's thought process, motivation, and action is a human characteristic; therefore, it is not just knowing what to do but having the mental capability and confidence in performing a skill (Bandura, 1993).

Stress and depression can affect self-efficacy and the capabilities of succeeding in a situation (Bandura, 1993). If a person does not believe they can manage a task, high levels of stress may result. People will avoid threatening situations if they believe they will not be successful (Bandura, 1982). Stress with caregiving tasks can affect the belief in the ability to be successful in caregiving tasks. The feelings of inadequacy can result in increased depression and decreased life satisfaction (Bandura, 1986). Eventually, a caregiver may give up on performing caregiving tasks and decide to institutionalize the patient because of the belief that the tasks cannot be performed.

Efficacy expectations and outcome expectations are links that reflect a person's beliefs about capability and behavior. Efficacy expectations consist of beliefs about how capable one is of performing the behavior that leads to the outcomes. Outcome expectations consist of beliefs about whether a behavior will lead to an outcome (Bandura, 1977b). If a person perceives a doubt about performing an activity, the doubt will influence the behavior, as the self-perceptions are unique to the individual (Bandura, 1986). People act through cognitive, motivational, and affective processes (Zimmerman, Bandura, & Martinez-Pons, 1992). These processes not only are intervening influences of action but also exert considerable influence on the belief of successful completion of a task (Bandura, 1989).

Affective processes include emotional reactions while thinking and are seen when a person's belief in one's capabilities has failed, resulting in stress and depression (Bandura, 1993). What a person believes can affect stress, coping, and motivational levels. People who believe they are in control over threats in their lives have lower levels of stress (Bandura, 1989; Lazarus & Folkman, 1984). Lazarus and colleagues propose that insufficient coping with a stressor can result in a negative affect which affects the way in which demands on coping ability are appraised. Caregivers' appraisals of stressful situations and their self-efficacy in handling caregiving situations can predict environmental stressors and caregiver outcome (Haley, Brown, & Levine, 1987). Perceived self-efficacy in thought is the key factor in controlling stress and coping (Bandura, 1993). If a caregiver does not believe a successful outcome is possible when performing the caregiving task, coping strategies may eventually fail leading to more stress, depression, and poor life satisfaction. People put themselves in situations in which they believe they will be successful and will avoid activities that exceed their coping abilities. A caregiver will choose which task to perform based on the belief of mastery of the task.

Assumptions of the Study

The assumptions of the study were (a) caregivers face difficulties and challenges in their daily roles as informal caregivers, and (b) caregiving is stressful, and the response may be positive or negative.

Definitions of Terms

The following terms were defined for the purpose of the study.

Race--race was operationalized as either African American or White American female caregivers.

Caregiver--a female who delivers care to an elderly bedbound patient a minimum of 6 hr a day for at least 6 months.

Bedbound patient--a patient, 55 years and older, with functional limitations, who remains in bed greater than 50% of the waking hours with a chronic illness of stroke.

Caregiving self-efficacy--a self-judgement of the caregiver's perceived capabilities to accomplish caregiving tasks on six items of the bedbound patient's functional limitations. For the purposes of this study, self-efficacy was operationalized as a score on Haley's self-efficacy instrument (Haley, 1994; Haley, Brown, & Levine, 1987; Haley, Levine, et al., 1987; Haley, Wadley, West, & Vetzel, in press).

Caregiving stress--how upsetting an event is to a caregiver in response to a caregiving task. For the purposes of this study, caregiving stress was operationalized as a score on six items of the bedbound patient's functional limitations from Haley's stress instrument (Haley, 1994; Haley, Brown, & Levine, 1987; Haley, Levine, et al., 1987; Haley, et al., in press).

Social support--the various forms of aid and assistance supplied by family members, friends, neighbors, and others to the caregiver. For the purposes of this study, social support was operationalized as a score on the Social Support Questionnaire--Short Form Revised (SSQSR) (Sarason, Sarason, Shearin, & Pierce, 1987).

Coping--constantly changing cognitive and behavioral efforts to manage demands that are appraised as exceeding the resources of a caregiver (Lazarus & Folkman, 1984). For the purposes of this study, coping was operationalized as a score on the Revised Ways of Coping Checklist (RWCCL; (Vitaliano, 1987).

Depression--cognitive, affective, and behavioral features of sadness, dejection, despair, discouragement, or hopelessness. For the purposes of this study, depression was operationalized as a score on the Center of Epidemiology Studies--Depression (CES-D; Radloff, 1977).

Life satisfaction--a subjective feeling of well-being and contentment with life. For the purposes of this study, life satisfaction was operationalized as a score on the

Life Satisfaction Index--Z (LSI-Z; Wood, Wylie, & Sheafor, 1969).

Activities of daily living (ADL)--functional limitations in six biological functions: bathing, dressing, toileting, transferring, continence, and feeding. For the purposes of this study, activities of daily living was operationalized as a score on Katz's Activity of Daily Living Scale (Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963).

Significance of the Study

Bedbound patients in the home require extensive care by a caregiver. The abilities to cope with caregiving tasks are major implications in decisions to institutionalize patients. Family members must watch their patient's health decline with detrimental emotional consequences to the caregiver, eventually leading to possible long-term care placement for the elder.

Future health care predictions indicate more people will have chronic diseases rather than acute diseases. Family compositions and resources are changing with more multigenerational families, low fertility rates, and high divorce rates. In the future, there will be more elders and fewer younger individuals to care for the elders. There is a growing population of elderly who will need care in the future that can be provided in the home. Elders will be sicker and will require more care as chronic illnesses become more prevalent and as elders are discharged from acute care settings sooner to decrease hospital costs. Home care options will be available for those caregivers who are able to handle the responsibility.

The traditional caregiver has become a woman in the labor force with children and other family responsibilities, such as the head of household with social obligations, as well as responsibility for the care of an elder family member. At present, there are limited resources in the community for these caregivers. How these female caregivers manage tasks of caregiving can determine coping outcomes. If inadequate caregiving occurs, the bedbound elderly may suffer poor home care, elder abuse, and neglect.

Few data are available on differences in self-efficacy, stress, social support, coping, depression, and life satisfaction of caregivers from different racial groups. If race interacts with caregiving self-efficacy to influence stress, social support, coping, depression, and life satisfaction, nurses will need to develop different approaches to assess, plan, implement, and evaluate patient care for racially diverse informal caregivers. The purpose of this study was to compare White American and African American female caregivers of bedbound patients on the caregiver's (a) caregiving self-efficacy, (b) perceived stress, (c) perception of social support, (d) coping, (e) level of depression, and (f) reported life satisfaction.

CHAPTER 2

LITERATURE REVIEW

There is a vast amount of caregiver research reported in the literature. However, little research has been done in the home care setting of bedbound patients who are totally dependent on a caregiver. Coping success of home caregivers can determine whether a bedbound patient will be institutionalized (Aneshensel, Pearlin, & Schuler, 1996; Colerick & George, 1986; Skaff, Pearlin, & Mullan, 1996). The review of the literature discusses informal caregiving; female caregivers; race and caregiving; and research done with caregivers on self-efficacy, stress, social support, coping, depression, and life satisfaction.

Informal Caregiving

Informal caregiving requires a large amount of time often involving tasks that are demanding and tiresome. Tasks can vary depending on the disability and illness of the patient (Biegel et al., 1991). Usually one person assumes the role of the primary caregiver. Studies reported in the literature are about the process of caregiving and the effects of caregiving on the patient and family. Most studies focus on a particular disease process, or relationship role. Only recently have studies begun to focus on racial differences in family caregiving.

Caregivers provide care for patients with chronic disabling illnesses which can cause severe stress for both patient and families. The type of disease and the stage of progression of the disease can impact on several variables of the caregiver, such as self-efficacy, stress, social support, coping, depression, and life satisfaction. The caregiver's family structure and emotional and developmental state can also play a role in caregiving success.

Most of the studies described caregivers as females, middle aged, White, and married. This characteristic of the caregiver is due in part to the lack of studies on caregivers of different cultures. The percentages of White caregivers are reported as 93% (Brody & Schoonover, 1986), 97% (George & Gwyther, 1986), 78% (Hinrichsen & Ramirez, 1992), 75% (Lawton et al., 1992), 80% (Mui, 1992), 98% (Smith et al., 1991), and 58% (Wood & Parham, 1990) in studies that documented race as a variable.

The majority of caregivers in the studies published are identified as females, daughters, having an average age in the mid-50s (one third over age 65), one third employed full-time in the labor work force, and living with the patient (Biegel et al., 1991; Killeen, 1989; Neundorfer, 1991; Sayles-Cross, 1993; Smith et al., 1991). Other relatives and nonrelatives make up 25% of caregivers

(Biegel et al.). Most primary caregivers provide care for the patient 7 days a week.

Caregivers in the home are often forgotten and neglected, isolated from society with inadequate resources to assist in the care of bedbound patients. Caregivers' perceptions of their own health are negatively associated with the amount of care required for the care-recipients (Decker & Young, 1991; Killeen, 1989). Emotional stressors of caregiving have been identified as decreased coping, social isolation, conflict with family issues, care recipient's needs, quality of relationships, feelings of inadequacy, and lack of support and long-term planning (Cossette & Levesque, 1993; Guberman et al., 1992; Robinson, 1990; Smith et al., 1991). Caring for a bedbound, disabled parent or spouse can be psychologically devastating for a caregiver.

Stress, life satisfaction, and depression can affect coping of caregivers (Brett, Brief, Burke, George, & Webster, 1990; Lindgreen, 1990; Wallhagen, 1993; Williams, 1995). Self-efficacy has been used to determine the effects of stressors on life satisfaction and depression. Persons with high self-efficacy report higher levels of motivation, life satisfaction, and well-being (Adelmann, 1994; Moore, 1990; Salazar, 1991; Stretcher, McEvoy, Becker, & Rosenstock, 1986). The feelings of commitment, affection, and obligation depending on whether the patient is a spouse, child, or other relative can affect the degree of stress and satisfaction of caregiving (Zarit, 1990).

As energy, time, and money is focused on the patient, caregivers often neglect personal needs (Given & Given, 1991). The more serious the patient's problems, the higher the stress levels of the caregiver and the lower the self-rated health. Caregivers reported fewer doctors' visits for themselves than the patients and reported their own health as the same or worse than the health of the patients' (Pruchno & Potashnik, 1989). The caregiver who reports high levels of stress, low self-appraisals of caregiving self-efficacy, and poor personal health was more likely to institutionalize the patient (Haley, 1994).

In 1991 Decker and Young described caregivers' self-perceived health as fairly good in a convenience sample of 19 primary caregivers from a hospice agency. Only 16% of those caregivers were free from health concerns. Problems identified were inadequate rest and the need for respite services, with more than one third complaining of back injuries limiting care to the patient. Killeen (1989) reported an inverse relationship between time spent in caregiving and perception of caregiver health. Caregiver spouses reported more doctors' visits and rated health lower than groups of noncaregivers (George & Gwyther, 1986).

Caregiving in Stroke

Neurological deficits involved with stroke patients are usually sudden in onset resulting from a cerebral thrombus or a cerebral hemorrhage with impairments in motor, sensory, cognitive, language, and other functions depending on the area of the injury. Stroke is a leading cause of chronic long-term disability. The severity of the stroke and the amount of disability directly influence the amount of stress and burden put on the caregiver (Biegel et al., 1991). These caregivers usually report high levels of depression depending on the caregivers' well-being. In 1995 Williams identified four primary categories of stressors for caregivers of stroke patients including caregiver confinement due to dependence of patient on the caregiver, irritability, cognitive impairment, and the problems of physical disability involved with living with a stroke patient.

Caregiving and Gender

Seventy-five percent of caregivers are females, either the daughters or wives of the patient (Green, 1991; King, 1993; Pratt, Jones, Shin, & Walker, 1989). More of these caregivers remain in the workforce with families and children of their own. Studies of caregiving by wives/daughters have included patients who have dementia, Alzheimer's Disease, cognitive impairments, or memory loss (Bergman-Evans, 1994; Haley, 1994; Haley et al., in press; O'Leary, Haley, & Paul, 1993; Robinson, 1990). Three studies reported female African American caregivers as more adaptable to caregiving stressors with the least likelihood to institutionalize family members and reported higher functional limitations than White American caregivers (Haley; Haley et al., 1995; Hinrichsen & Ramirez, 1992).

Daughter caregivers are least likely to participate in health promotion activities and are more likely to be in the work force and caring for their own children (Killeen, 1989). Caregivers deprive themselves of rest and medical care which has a negative impact on health (Killeen). Neundorfer (1991) reported that caregiving has negative impacts on the health of the caregiver by interrupting sleep and causing chronic fatigue, muscle aches, irregular eating, and lack of time for caregivers to take care of themselves. According to Smith et al. (1991), caregivers reported stress-related physical symptoms like tension headaches, backaches, insomnia, and muscle tension. George and Gwyther (1986) found that caregivers reported three times as many stress symptoms than noncaregivers.

Caregiving and Race

African Americans have extended families with strong kinship ties and are likely to be involved in pseudo-kin relationships (Gordon-Bradshaw, 1987). African Americans tend to regard the elderly with respect and feel responsible for helping parents and the elderly (Gordon-Bradshaw; Hinrichsen & Ramirez, 1992; Mui, 1992). The extended families and pseudo-kin relationships are highly integrated and serve as a resource for survival for the caregiver allowing for more respite from friends and family. However, inconsistency in caregivers may decrease the quality of caregiving (Chatters et al., 1985; Horowitz, 1985; Lawton et al., 1992; Wood & Parham, 1990).

Mui (1992) studied the emotional strain between African American and White American caregivers using a role theory perspective. Interviews involved 117 African American and 464 White American caregivers. The multiple role commitment of African American women produced a strong tendency toward role strain and conflict. The predictors of role strain in African American women included poor perceived health, unavailability of respite services, and a lower caregiving role demand that included the amount of caregiving hours, duration of caregiving, caregiving tasks, and number of other social roles. In contrast, for the White American caregivers, predictors of role strain were the quality of the preexisting relationship between the caregiver and patient and conflicts with work.

Lawton et al. (1992) reported African American caregivers were less depressed, more socialized to respect and assist their elderly, and more favorable in their experience of caregiving with greater mastery and satisfaction and had less burden and intrusion on social life than White American caregivers. White American caregivers were more likely to be married in contrast to 65% of African American women over 16 years old who were reported as being single, lonely, isolated, and depressed (Bennett, 1987; Lawton et al.; Warren, 1994). After age 85, income and self-reported health status of the African American women are not linked with lower levels of social support, family interaction, life satisfaction, or high mortality rates (Padgett, 1988).

African American women may be better able to cope with distress because they have learned to cope with more trying circumstances in their lives (Padgett, 1988). These women have a long work history and have long been expected to provide for the family. African American caregivers with higher incomes reported greater role strain than those with low incomes (Lawton et al., 1992; Mui, 1992). When comparing Alzheimer's family caregivers, African Americans were reported to have higher self-efficacy scores than White Americans when performing activities of daily living and instrumental activities of daily living on Alzheimer's patients (Haley et al., in press).

Caregiving and Self-Efficacy

Self-efficacy has primarily been studied in relation to health promotion (Blair, 1993; Damrosch, 1991; McAuley & Jacobson, 1991; Redland & Stuifbergan, 1993). High self-efficacy scores are positively correlated with a high level of health promotion. Self-efficacy correlated with the effects of client stability and change (McMahon & Jones, 1992; Waters, 1993; Werch, Kersten, & Young, 1992). High self-efficacy is associated with feelings of control (McBride, Perie, & Curry, 1992) and is associated with greater degrees of self-management and self-care (Long & Holman, 1993; Stewart & Knight, 1991; Taal, Rasker, Seydel, & Wiegman, 1993). Gerontological studies by McDougal (1993) and Waller and Bates (1992) showed older adults may give up trying to remember because of low self-efficacy, doubting their ability to achieve desired levels of performance. Persons with high self-efficacy are more likely to use self-help to assist with depression (Mahalik & Kivlighan, 1988). In Haley, Levine, et al. (1987) the ratings of stress and self-efficacy were correlated. Caregivers reported low in self-efficacy and high in stress related to patient care based on the patient's functional limitations.

Caregiving and Stress

Stress is a relationship between an individual and the environment (Lazarus & Folkman, 1984). Stressors can be defined as primary and secondary cognitive appraisals. Primary appraisals are the process in which one judges the significance of an event with regard to well being. Secondary appraisals are the coping options available to resolve the event (Lazarus & Folkman; Sayles-Cross, 1993). Secondary appraisals are of importance because they are the caregiver's summation of feelings about the immediate situation (Zarit, 1990).

Stress in caregiving can relate to self-appraisals of caregiving tasks. Self-appraisals of tasks help the caregiver understand the thoughts and feelings the caregiver has about the caregiving situation including coping and the outcome of any stressful event (Haley, Levine, et al., 1987). The self-appraisal of perceived control is a major variable in handling stress and is a continuously changing mental process (Sayles-Cross, 1993; Wallhagen, 1993). When stress exceeds the coping ability or resources for coping, stress is manifested in a variety of behaviors and emotions including inadequate coping, depression, and decreased life satisfaction. Resources for coping include health, energy, beliefs, commitments, social skills, support, and material resources. Burnout in caregiving has been related to lack of social support and lack of personal accomplishments in caregivers (Lindgreen, 1990).

The majority of problems caregivers face focus on unmet emotional needs and behavioral problems (Smith et al., 1991). Agitated or embarrassing behaviors by the patient are reported by caregivers to be the most difficult problems to care for (Haley, Levine, et al., 1987). Caregivers' stress has been reported to decrease when the patient becomes more deteriorated and is unable to fight or engage in embarrassing behavior and when the caregivers learn more about the patient's disease process and management strategies related to the disease process (Wallhagen, 1993; Zarit, Todd, & Zarit, 1986). Longitudinal studies have shown that caregivers learn to cope and their levels of stress decreased over time (Wallhagen).

Zarit (1990) identified stressors as care tasks measured by ADLs. As dementia progresses, self-care activities deteriorate and caregivers assume the responsibility of self-care. ADL impairments correlate with self-care behaviors and adaptive behaviors; the higher the cognitive impairment, the higher the ADL impairments (Haley et al., 1995; O'Leary et al., 1993). With self-care deficits, wife caregivers report higher levels of stress than husband caregivers (Harper & Lund, 1990).

Caregiving and Social Support

Social support was defined by Caplan in 1974 as the various forms of aid and assistance supplied by family members, friends, neighbors, and others. The role family, friends, neighbors, and other nonfamily associates play as support providers is important to review. Health maintenance and recovery from illness can be influenced by a person's access to social support (Sarason et al., 1987). Most contacts between elderly impaired adults involve a spouse or child (Chatters et al., 1985). Social support and coping are two mediators of the negative effects of caregiving identified in research.

Social support is available through friends, relatives, and community resources (Fink, 1995). When families have adequate resources, strains with the family do not result in a negative effect on well-being. Married elderly adults with children are in the most advantaged position of all groups in terms of support resources. Marital partners and children operate under the obligation that support must be provided. The absence of a spouse and childlessness resulted in smaller networks for never married and widowed persons (Chatters et al., 1985).

African American elderly adults have had limited access to societal support due to discrimination in the health care market, education, and employment (Chatters et al., 1985). African Americans are more likely to live with family members. Older African Americans usually rely on family members for support. However, rural African Americans are least likely to ask for information or help (Wood & Parham, 1990).

Caregiving and Coping

Coping is thought to be a transactional process influenced by an individual and the environment (Lazarus & Folkman, 1984). Coping has two functions: to alter the stress involved and to control emotional responses (Lazarus & Folkman). People with different personalities cope in various ways influenced by the type of stressor and the situation. Coping is defined by Lazarus and Folkman as constantly changing cognitive and behavioral efforts that are self-appraised. Three types of coping are emotion focused, problems focused, and seeks social support (Redeker, 1992).

Different coping strategies have been identified by varying categories of patients and illnesses. Coping can also change over a span of time; people will cope differently over different times (Folkman & Lazarus, 1984). Complex interrelationships may exist among coping strategies (Crumlish, 1994). Personal characteristics of age, education, and gender may also affect coping styles (Redeker, 1992).

Race has been identified as a factor in selecting coping strategies. In 1992 Lawton et al. suggested African American and White caregivers do cope differently based on findings of his study of appraisals of caregiving which identified that African American caregivers have a lower subjective burden of caregiving, greater caregiving satisfaction, and higher mastery of caregiving skills. African American family caregivers have lower appraisals of subjective stress with lower levels of depression compared to White caregivers. The effects of race on well-being were mediated by coping responses (Haley et al., 1996). African Americans use fewer problem solving strategies with a high use of prayer and faith as their primary coping strategy to stress (Picot, 1995; Wood & Parham, 1990).

Caregiving and Depression

Feelings of stressfulness and self-efficacy in handling caregiving problems are a significant factor in predicting depression (Haley, Brown, & Levine, 1987). Levels of depression are influenced by the functional limitations of the patient, social functioning, and disruptive behavior (Deimling & Bass, 1986). Pruchno, Kleban, Michaels, and Dempsey (1990) reported depression in caregivers as consistent yet changed over time since caregivers reported depression, recovered, then became depressed again.

Caregivers reported a higher rate of depression than noncaregivers (Dura, Stukenberg, & Kiecolt-Glasser, 1991; Neundorfer, 1991; Pruchno & Potashnik, 1989). In 1989 Pruchno and Potashnik reported spousal caregivers were more depressed with more symptoms of psychological distress than noncaregivers. Wives reported higher levels of depression than husbands when caring for spouses (Pruchno et al., 1990). Male caregivers reported a higher rate of depression than male noncaregivers (Fuller-Jonap & Haley, 1995). Adult children caring for demented parents showed more depression and anxiety disorders than adult children who did not (Dura et al., 1991). Long-term commitments in a relationship tend to be associated with lower depression rates among caregivers (Pruchno & Potashnik, 1989). Woman spousal caregivers reported a higher level of deterioration of their marriages than males (Fitting, Rabins, Lucas, & Eastham, 1986). Negative affectivity affects the reporting of life events and is associated with self-reports of well-being (Brett et al., 1990). Older persons 70-98 years old scored lowest on depression and well-being than other age groups (Gatz & Hurwicz, 1990). High levels of depression leave caregivers susceptible to illness and decline of physical health (Pruchno et al., 1990).

Caregiving and Life Satisfaction

Life satisfaction is the "contentment with one's life in general" (Shmotkin, 1991, p. P243). It is affected by thoughts and concerns of the future with a need to generate a comprehensive meaning of life (Shmotkin). Life satisfaction is almost totally mediated by subjective health assessment as individuals in poor health reported a lower life satisfaction. Coping also plays an important role in the process of life satisfaction related to poor health (Lohn, Essex, & Klein, 1988).

Caregivers with a higher level of perceived control reported higher life satisfaction, conversely, depression and perceived control also correlated (Wallhagen, 1993). Leisure activities contribute to life satisfaction as Kinney and Coyle (1992) reported physically disabled persons participating in leisure time had higher life satisfaction than those who did not, correlating to the same finding of healthy individuals who also need leisure time to have life satisfaction. Life satisfaction reduces the burden of caregiving in females compared to males (Harper & Lund, 1990). Life satisfaction among caregivers is lower than noncaregivers (Barusch & Spaid, 1989; Cossette & Levesque, 1993; George & Gwyther, 1986; Haley, 1994; Pruchno & Potashnak, 1989).

The caregiver's level of health is a self-reported quality of life (Hinds, 1990). Caregiving causes physical health to deteriorate and is reported to be significantly poorer among caregivers than noncaregivers (Killeen, 1989). Astrom, Asplund, and Astrom (1992) reported poor life satisfaction of caregivers was associated with major depression and poor performance of ADLs. African Americans with arthritis were significantly more depressed with lower life satisfaction as reported in a study by Husaini and Moore (1990).

In summary, caregivers of bedbound patients have seldom been studied. Trends in home health care mean more informal caregivers will care for bedbound patients while managing their own emotional and physical health needs and existing social demands. Research identifying the factors influencing successful home care for elder bedbound patients and the consequences for the caregiver is greatly needed. In previous studies involving patients with cognitive impairments, the functional limitations of the elder bedbound patient determined the amount of caregiving the patient received and significantly influenced the stress and coping of the caregiver. The overall dependency a patient has on a caregiver can be a detriment to the caregiver both emotionally and physically. This study explored whether race influences caregiving self-efficacy, stress, social support, coping, depression, and life satisfaction of caregivers of elder bedbound patients in the home.

CHAPTER 3

METHODOLOGY

This chapter describes the process the investigator utilized in answering the research questions. The following components are addressed: (a) design of the study, (b) methods, (c) sample, (d) instruments, (e) procedure, (f) data collection, (g) analysis of data, and (h) study limitations.

Design of the study

The design of the study was exploratory, cross-sectional, and comparative. African American and White American female caregivers of bedbound patients were compared on the variables of demographic characteristics, functional limitations of the bedbound elder, as well as caregiver's self-efficacy, stress, social support, coping, depression, and life satisfaction.

Methods

Data were collected in a 1-hr interview which took place in each bedbound elder's home at a convenient time for the caregiver. In that the impact of race may have affected caregivers' responses, an African American research assistant interviewed African American caregivers

(Jackson, 1989; Lawton et al., 1992). Research assistants were trained in the interviewing process to assure interviewing consistency. Each of the assistants had prior experience in interviewing.

Demographic data were collected on each caregiver's age, race, relationship to the bedbound elder, marital status, employment status, years of caregiving, living arrangements, hours of caregiving per week, respite hours per week, income, and support network. Functional limitations of the bedbound elder were measured, along with caregiver's self-efficacy, stress, social support, coping, depression, and life satisfaction.

Sample

A convenience sample from home health agencies in one southern state was used. The agencies agreed to supply the investigator with names of bedbound elderly patients with a diagnosis of stroke. Inclusion criteria for subjects in the study were female caregivers who were the primary caregivers of bedbound elders who resided with the patients a minimum of 6 hr each day and who had been caregiving for at least 6 months. A power analysis determined a sample size of at least 38 African Americans and 38 White American caregivers would provide 80% power for a .40 critical effect size at a significance level of .05.

Instruments

Functional limitations of the bedbound patients were measured by the Activity of Daily Living Scale. Caregivers' stress and perceived self-efficacy were measured based on the degree of the functional limitations. Social support was measured using the SSQSR. The Revised Ways of Coping Checklist was used to ascertain coping strategies. The Center for Epidemiologic Studies Depression Index was used to measure depression. The LSI-Z form measured life satisfaction. Instruments used in the study can be viewed for number of items, range, and coefficient alpha for reliability in Tables 1 and 2. References for reliabilities are cited in discussion of instruments, as follows.

Table 1

Description and Psychometric Properties of Instruments

Instrument	No. of items	Scale	Possible score	Coefficient alpha
ADL	6	1 - 3	1 - 3	.95
Stress	6	0 - 3	0 - 3	.87
Self-efficacy	6	0 - 3	0 - 3	.87
Social support	6	1 - 6	6 - 36	.97
Depression	20	0 - 3	0 - 60	.90
Life satisfaction	13	0 - 2	0 - 26	.79

Note. ADL = Activities of daily living.

Table 2

Description and Psychometric Properties of Coping Instruments

Instrument	No. of items	Scale	Possible score	Coefficient alpha
Problem focused	15	0 - 3	0 - 45	.85
Social support	6	0 - 3	0 - 18	.86
Blames self	3	0 - 3	0 - 9	.79
Wishful thinking	8	0 - 3	0 - 24	.80
Avoidance	10	0 - 3	0 - 30	.73
Blames others	6	0 - 3	0 - 18	.84
Count your blessings	6	0 - 3	0 - 18	.90
Religiosity	3	0 - 3	0 - 9	.79

Activities of Daily Living Scale (ADL)

Activities of Daily Living Scale (ADL) (Katz et al., 1963) measured the bedbound elders' functional limitations in bathing, dressing, toileting, transferring, continence, and feeding. The ADL scale was developed as a measure of function in chronically ill and aging populations. The scale has been used extensively with older populations in home care programs and homes for the aged (Mangen & Peterson, 1984). Scoring was done by the most independent level (1) to the most dependent level (3) and was based on a mean item score. There are six limitations identified. The level of each limitation was added then divided by 6. A score of 2 or higher indicated a totally dependent bedbound elder. Construct convergent validity has been reported at .55 (Mangen & Peterson) with reliability at .95 (Kane & Kane, 1981).

Self-Efficacy

Self-efficacy was measured using Haley's companion instrument based on the six functional limitations measured in the Katz ADL measure. Each functional limitation had a companion measure of caregiver self-efficacy. This component of the instrument assessed the degree of the caregiver's self-efficacy (confidence) around that functional limitation. The use of this instrument has been reported in the literature (Haley, 1994; Haley, Brown, & Levine, 1987; Haley, Levine, et al., 1987; Haley et al., in press). Scoring for self-efficacy was based on a 0 to 3 Likert scale. After asking the caregiver about each functional limitation (e.g., bathing), the investigator asked "How confident are you that you are making the best possible response to John's inability to 'bathe' on a scale of 0 (not at all confident) to 3 (extremely confident)?" Each reported measurement of self-efficacy from the six functional impairments was added. The sum of the self-efficacy items was then divided by the number of items. If a caregiver scored a total of 16 points from the six functional impairments (e.g., bathing, dressing, toileting, transfer, continence, or feeding), then 16 was divided by 6 to equal 2.66. There was no critical score to determine "good" or "bad" self-efficacy. The higher the score, the more self-efficacy. A pilot study with 10 caregivers determined a Cronbach alpha for reliability of .87 for the self-efficacy instrument.

Stress

Caregiver stress was measured using Haley's companion instrument to the six functional limitations measured on the Katz ADL measure. Each functional limitation identified had a measurement of caregiver stress. This component of the instrument assessed the existence of the functional limitation and the degree of stress to the caregiver. This instrument of stress has been used in the literature (Haley, 1994; Haley, Brown, & Levine, 1987; Haley, Levine, et al., 1987; Haley et al., in press). Scoring for caregiver stress was based on a 0 to 3 Likert scale. After asking the caregiver about a functional limitation, the investigator asked "How stressful is it to you that John Doe needs help with 'bathing' on a scale of 0 (not stressful) to 3 (the most stressful)?" The score for each caregiver was reported. Each reported measurement of stress from the six functional impairments was added. The sum of the stress items was then divided by the number of items (6). If a caregiver scored a total of 13 points from the six functional impairments (e.g., bathing, dressing, toileting, transfer, continence, or feeding), then 13 was divided by 6 to equal 2.16. There was no critical score to determine "good" or "bad" stress. The higher the score, the more stress. A pilot study with 10 caregivers determined a Cronbach alpha for reliability of .87 for caregiver stress. An example of the stress and self-efficacy tool based on the functional impairment of bathing is given for a spouse in Table 3.

Social Support Questionnaire, Short Form Revised (SSQSR)

The SSQSR (Sarason et al., 1987) is a 12-item instrument in which individuals were asked to list the people (up to nine) in their social network whom they perceive as helpful in six different areas and rate their perceived satisfaction of this support network in each of these six categories on a scale of 1 (very satisfied) to 6 (very dissatisfied). Scoring was done by total number of network size and a separate score for overall satisfaction. The SSQSR has been used to study social support in caregivers of different medical patients (Haley et al., 1995; Kaplan & Hartwell, 1987; Vitaliano, Russo, Young, Teri, & Maiuro, 1991). Factor analysis identified different unitary dimensions of the instrument with test-retest reliability reported as .84 and internal reliabilities reported as .97 (Sarason et al., 1987).

Revised Ways of Coping Checklist (RWCCL)

The RWCCL is a 57-item scale revised from the Ways of Coping Scale from Folkman and Lazarus (1980). The scale measured the three major coping domains of emotion focused, problem focused, and seeks social support coping. There are

Table 3

Example of Stress and Self-Efficacy Tool Based on Functional Impairment

Functional impairment	Level of dependence	Stress	Self-efficacy (confidence)
Bathing (either sponge bath, tub bath or shower) Does your husband need any kind of help with bathing? Yes _____ No _____	1. Receives no assistance (gets in and out of tub by self if tub is usual means). 2. Receives assistance in bathing only one part of the body (such as back or a leg). 3. Receives assistance in bathing more than one part of the body (or not bathed).	How stressful or upsetting is it for you, on the 0 to 3 scale (point), that your husband needs help with bathing? 0 1 2 3	How confident are you that you are making the best possible response to your husband's inability to bathe, on a 0 to 3 scale? 0 1 2 3

eight types of coping strategies assessed by the RWCCL problem-focused coping with 15 items, seeks social support with 6 items, blames self with 3 items, wishful thinking with 8 items, avoidance with 10 items, blames others with 6 items, count your blessing with 6 items, and religiosity with 3 items. The last three scales have been added recently. The instrument has been used in a variety of populations, including caregiving spouses of Alzheimer's patients. The RWCCL is a 4-point Likert scale with responses ranging from 0 (never used) to 3 (regularly used), with a "Not applicable" option for thoughts or behavior the respondent believes to be inappropriate. The proportional scores for each of the eight types of coping have been used in the literature. This scoring method uses relative scores allowing assessment of the magnitude of each coping strategy relative to the total coping effort; however, some controversy exists over the way the score is calculated (Lapp & Collins, 1993; Redeker, 1992; Vitaliano, 1987; Vitaliano, Maiuro, Russo, & Becker, 1987; Vitaliano, Russo, Carr, Mauiro, & Becker, 1985). Lapp and Collins (1993) reported a violation in linear dependence in multivariate analysis and suggested using raw scores for scoring. Therefore, raw scores were computed by summing the ratings of items that compromise each subscale. High raw scores indicate more frequent use of coping strategies. Alpha coefficient reliabilities were measured at .85 for problem focused coping, .86 for wishful thinking, .79 for seeks social support, .80 for blames self, and .73 for avoidance coping using spousal caregivers of Alzheimer's disease. For the new coping subscales, alpha coefficient reliabilities were reported as follows: blames others .84, count your blessings .90, and religiosity .79 (Vitaliano, 1987). Construct validity and criterion related validity was tested using univariate and multivariate testing. Appraisal versus coping was significant using Hotelling's $\underline{T}^2$, at $\underline{F}$ $(5,59) = 3.02$, $\underline{p} < .05$.; appraisal and coping were significant predictors of distress, $\underline{F}$ $(22,94) = 2.29$, $\underline{p} < .005$, accounting for 58% of the variance in the SCL-90 Anxiety Scale and the Beck Depression Inventory (Vitaliano et al., 1985). For the new coping subscales, correlation validity with depression and anxiety is reported as follows: blames others .24 and .26, count your blessings -.26 and -.31, and religiosity .00 and .13 (Vitaliano, 1987).

Center for Epidemiologic Studies Depression Index (CES-D)

The CES-D (Radloff, 1977) is a self-report measure of depressive symptomology developed for the nonpsychiatric population aged 18 and older. It provides an index of cognitive, affective, and behavioral depressive features and the frequency the symptoms have occurred. Major components include depressed mood, feelings of guilt and worthlessness, psychomotor retardation, loss of appetite, and sleep disturbances indicating present levels of functioning (Devins & Orme, 1985; Radloff, 1977). The CES-D is a 20-item questionnaire assessing frequency and duration of depressive symptoms in the last week with four items that measure positive affect. For each item, the respondent indicated the frequency which a specific feature had been experienced on a Likert scale of 0 to 3; 0 indicated rarely or none of the time; 1 indicated some or a little of the time; "2" indicated occasionally or a moderate amount of time; and "3" indicated most of the time. Four positive feature items (4, 8, 12, and 16) have reversed weights and were adjusted before totaling the score. Higher scores reflect greater distress. A score of 16 is suggested to be the cutoff to indicate depression. A score of 0-15 indicated not depressed; 16-20 indicated mild depression; 21-30 indicated moderate depression; and 31 or higher indicated severe depression. Reliability of .90, convergent validity of .75, and discriminate validity of .79 were reported (Devins & Orme).

Life Satisfaction Index--Z (LSI-Z)

The LSI-Z (Wylie, 1970) is a self-report measure of life satisfaction designed for use with the aged. The instrument relied on the respondent's internal frame of reference and tests five components of life satisfaction: zest (optimism of the future), resolution and fortitude, congruence between desired and achieved goals (satisfaction with the past), positive self-concept, and mood tone (present happiness) (Shmotkin, 1991). Scoring of the LSI-Z required a mark in one of three areas: (a) agree, (b) disagree, and (c) not sure. Agree was scored a 2, disagree was scored a 0, and not sure was scored 1. Five negative feature items (3, 6, 10, 11, and 13) have reversed weights and were adjusted before totaling the score. The possible range of scores is 0-26. The higher the score, the higher the life satisfaction. A validity score using a correlation coefficient with the Kansas City Study of Adult Life--The Life Satisfaction Ratings was reported at .57; a reliability coefficient alpha of .79 was reported (Wood et al., 1969; Wylie, 1970).

Procedure

Letters were sent out from the home health agencies explaining the study and asking for participation. The letter assured the caregiver that the patient care received from the home health agency would not be affected by participating or not participating in the study and that responses of the questionnaires would not be shared with the agency staff. The caregiver was asked to return the letter to the agency to show willingness to participate in the study. The researcher received the names of the caregivers who returned a letter agreeing to participate from the home health agencies and contacted the caregivers to make an appointment to collect data.

Data Collection

At the appointment time, a consent to participate was signed. Demographic data were collected through an interview. The interview of the caregiver was done privately out of hearing distance of the bedbound elder. Functional limitations of the bedbound elder and caregiver self-efficacy, stress, social support, coping, depression, and life satisfaction were measured. During the interview, the caregiver was observed for any anxiety or change in emotional status by the interviewer. If changes occurred, the interview was stopped and the interviewer remained with the caregiver as needed. Social workers from the home health agencies were available for referral for any emotional distress to families.

Human Subjects

Protection of Human Subjects was insured. The subjects were informed about the details of the study and notified that this was a voluntary study with no harm to subjects. The investigator explained that the study would in no way affect the outcome of the condition of the bedbound elder. Confidentiality and privacy were assured by coding of questionnaires and instruments. Coding was done by a letter and numerical system. The first symbol in the coding was an (A) for African American or (B) for White American. Then, each questionnaire was numbered in sequence of interviewing starting with the number 1. The code was matched to the caregiver by the principal investigator after the interview and was kept in locked files in the office of the principal investigator. The study was approved by the Institutional Review Board of the University of Alabama at Birmingham and the home health agencies.

Analysis of Data

Chi square, t tests, multiple regression, and analysis of covariance (ANCOVA) statistics were used to compare groups on demographic characteristics of age, socioeconomic status (income), relationship to bedbound elder (to be classified as spouse/nonspouse), marital status, employment, years of caregiving, living conditions, hours per week of caregiving, and support available. African American and White American caregivers' self-efficacy scores as well as outcome measures of caregiver stress, social support, coping, depression, and life satisfaction were also compared. Statistics for Question 1 consisted of a t test comparing the two groups on self-efficacy scores. Research Questions 2 through 6 were tested using a two-way analysis of variance (ANOVA) to determine main effects and interactions of caregivers self-efficacy with race on the dependent variables of stress, social support, coping, depression, and life satisfaction, and ANCOVA controlling for relationship, socioeconomic status, stress, depression, and life satisfaction. Simple main effects analysis was determined for Question 2 and 6, based on the findings of interactions on stress and life satisfaction.

Limitations of the Study

Limitations of this exploratory, cross-sectional comparative study were as follows:

1. Use of a convenience sample limited generalizability to populations with characteristics similar to the sample.

2. While interviewer technique training was used to minimize differences between interviewers, use of different interviewers for each race may have introduced some bias in responses. Because only two interviewers were used, interviewer effects could not be modeled and controlled for.

3. Because Haley's instruments of stress and self-efficacy had not been reported in published literature (although the instrument had been used in nationally funded research studies), reliability and validity of the measure had not been determined.

CHAPTER 4

RESULTS

The purpose of this study was to compare female White American and African American caregivers of bedbound elders on the caregiver's (a) caregiving self-efficacy related to managing the functional limitations of the bedbound elder, (b) perceived stress based on those functional limitations, (c) perception of social support, (d) coping, (e) level of depression, and (f) reported life satisfaction. This chapter describes statistical findings from the study. A descriptive profile of the sample, the instruments used, and findings related to each research question are discussed.

The Sample

The sample consisted of 74 female caregivers of bedbound elders (44 males and 30 females) with a diagnosis of cerebral vascular accident (CVA). Of the caregivers, there were 36 African Americans and 38 White Americans who participated in the study. Responses of two African American caregivers were deleted from the study due to incomplete data. All lived in a rural area with 92% living with the bedbound elder. In Table 4, the characteristics of relationship and marital status of caregivers are outlined.

Table 4

Relationship and Marital Status by Race

	African American (n = 36)		White American (n = 38)	
Variable	n	%	n	%
Relationship				
Spouse	8	22.2	22	57.8
Daughter	17	47.2	10	26.3
Daughter-in-law	1	2.8	3	7.9
Sibling	2	5.6		
Granddaughter	1	2.8	1	2.6
Other	7	19.4	2	5.2
Marital status				
Married	19	52.7	32	84.2
Divorced	5	13.8		
Separated	7	19.4	3	7.9
Widowed	1	2.8	1	2.6
Single	4	11.1	2	5.3

Age for the two groups is as follows: African American (n = 57.14, SD = 15.54); White American (n = 61.89; SD = 14.51). To determine if differences existed between the races, a chi square analysis was calculated on relationship and marital status by race. A chi square analysis on race and relationship was calculated, X^2 (df = 5, n = 74) = 12.10, p = .03); more White American caregivers were spouses and more African Americans were nonspousal caregivers. A chi square for race and marital status indicated more White American caregivers were married, X^2 (df = 4, n = 74) = 10.53, p = .03.

To further determine differences by race, a chi square analysis was done on income. Chi square for caregivers income was significant, X^2 (df = 4, n = 70) = 14.11, p = .01, with 66.7% of African Americans reporting an income of less than $10,000. Four White American subjects (5.4%) declined to answer the question regarding income. In Table 5, income for the two races is illustrated.

Table 5

Frequency Distribution and Percent for Income by Race

	African American (n = 36)		White American (n = 38)	
Income	n	%	n	%
$1-10,000	24	66.7	9	23.6
$10,0001-20,000	7	19.4	16	42.1
$20,001-30,000	4	11.1	7	18.4
$30,001-40,000	1	2.8		
$40,001-50,000			2	5.2
Refused			4	10.5

The mean number of caregiving years was 5.25 (SD = 4.05) ranging from 1 to 23 years with a mean of 5.66 (SD = 4.86) and 4.86 (SD = 3.09) for African Americans and White Americans, respectively. Overall, both races of caregivers received little help from informal sources including other family members, neighbors, churches, or friends. Home health agency services were used frequently with a mean of 17.87 (SD = 14.49) days per month (4 weeks). African Americans reported more home health agency visits than White Americans with a mean of 19.56 (SD = 10.23) and 18.34 (SD = 17.0), respectively.

To test for differences in the independent variables among the racial groups, a simple t test was calculated and those at $p < .05$ were included in further analysis as covariates. These included stress, depression, and life satisfaction. The means, standard deviations, standard errors, F scores, and t test results for race differences are presented in Table 6.

There were no significant group differences noted on the dependency of the bedbound elders (based on ADLs), social support (network size or satisfaction), coping, or depression. As shown in Table 6, African American and White American caregivers were significantly different on the variables of self-efficacy, stress, and life satisfaction. The intercorrelation matrix for these variables by race is shown in Table 7. The impact of these differences are discussed in Chapter 5.

The Instruments

The instruments used in the study are listed in Table 8. Table 9 profiles the eight subscales of the RWCCL scale. As noted in Table 9, six of eight of the coping subscales had a coefficient alpha less than .70. According to Frank-Stromborg (1988), the reliability of attitudinal measures

Table 6

t Tests of Group Scores on Major Study

	African American (n = 36)		White American (n = 38)			
Variable	M	SD	M	SD	t	p
Activity of daily living	2.68	.53	2.68	.43	5.31	.57
Self-efficacy	2.50	.67	2.80	.54	1.55	.04
Stress	.64	.78	1.07	.97	1.56	.04
Social support (network)	14.08	8.89	12.32	7.32	.94	.37
Social support (Sat)	32.27	6.90	32.13	7.39	.09	.76
Depression	12.36	10.36	17.76	13.66	1.74	.06
Life satisfaction	16.55	6.40	12.82	6.31	.03	.01

Note. Sat = satisfaction.

measures should be .70 or higher. Implications of the use of the subscales with low reliabilities are discussed in Chapter 5.

Research Questions

Research Question 1

Is there a difference in caregiving self-efficacy between African American and White American female caregivers, controlling for relationship, socioeconomic

Table 7

Bivariate Correlations for Two Caregiver Groups[a]

	Self-efficacy	Stress	Social support network	Social support satisfaction	Depression	Life satisfaction
Self-efficacy	1.000					
Stress	.24(-.41*)	1.000				
Social support network	.12(.31)	.11(.25)	1.000			
Social support satisfaction	.51**(.38*)	-.29(-.47**)	.47**(.47**)	1.000		
Depression	-.28(-.28)	.62**(.59**)	.26(-.47**)	.57**(.41*)	1.000	
Life satisfaction	.59**(.40*)	-.63**(-.63**)	.35*(.45**)	.60**(.60**)	-.61**(.66**)	1.000

Note. [a]White American scores are in parentheses. *p < .05, **p < .01.

Table 8

Description and Psychometric Properties of Instruments

Instrument	# of items	AA M(SD)	WA M(SD)	Possible range	Actual range	Coefficient alpha
Activities of daily living	6	2.68(.53)	2.68(.43)	0-3	2.53-3	.73
Stress	6	.64(.78)	1.07(.97)	0-3	0-3	.88
Self efficacy	6	2.50(.67)	2.79(.54)	0-3	.50-3	.88
Social support network	6	14.08(8.89)	12.31(7.32)	0-54	0-36	.83
Social support satisfaction	6	32.28(6.9)	32.13(7.39)	0-36	6-36	.92
Depression^a	20	12.36(10.36)	17.76(13.66)	0-60	0-47	.90
Life satisfaction	13	16.81(6.31)	12.81(6.31)	0-26	0-26	.70

Note. ^{a}CES Depression scores over 16 indicate depression. AA - African American, WA - White American.

Table 9

Description and Psychometric Properties of Ways of Coping Subscales

Instrument subscales	# of items	AA *M*(*SD*)	WA *M*(*SD*)	Possible range	Actual range	Coefficient alpha
Problem focused	15	28.19(8.19)	27.13(5.79)	0-45	6-41	.66
Social support	6	9.31(3.35)	8.84(4.30)	0-18	0-18	.60
Blames self	3	1.61(1.97)	2.18(2.2)	0-7	0-7	.51
Wishful thinking	8	11.66(6.28)	12.52(5.23)	0-24	1-23	.77
Avoidance	10	10.66(6.03)	9.89(4.87)	0-30	0-22	.63
Blames others	6	3.17(3.93)	3.11(3.93)	0-18	0-16	.77
Count your blessings	6	13.88(2.86)	13.84(3.23)	0-18	6-18	.49
Religiosity	3	7.03(1.38)	6.97(1.72)	0-9	1-9	.39

Note. AA = African American, WA = White American.

status, stress, depression, and life satisfaction? An ANCOVA was used to compare group means on self-efficacy controlling for relationship, socioeconomic status, stress, depression, and life satisfaction. The covariate of life satisfaction contributed significantly to the amount of variability, $p = .005$ ($df = 1,63$; $F = 8.33$). There were significant differences on self-efficacy between races when controlling for the covariates of relationship, socioeconomic status, stress, depression, and life satisfaction. The main effect of race was significant, $p = .03$ ($df = 1,63$; $F = 5.26$), as shown in Table 10.

Table 10

ANCOVA Table of Self-Efficacy of Caregiver

Source of variation	SS	DF	MS	F	p
Total covariates (5)	5.13	5	1.03	4.65	.001
Main effects					
Race (AA and WA)	1.16	1	1.16	5.26	.030
Residual	13.89	63	.22		
Total	19.47	69	.28		

Note. ANCOVA = analysis of covariance. AA = African American, WA = White American.

Research Question 2

Is there a significant interaction between race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's stress, controlling for relationship, socioeconomic status, depression, and life satisfaction? The interaction between race and caregiving self-efficacy on the caregiver's stress when controlling for relationship, socioeconomic status, depression, and life satisfaction was significant at p = .01 (df = 2,59; F = 4.72). Relationship (p = .002; df = 1,59; F = 10.12), depression (p = <.001; df = 1,59; F = 14.34), and life satisfaction (p = .003; df = 1,59; F = 9.85) contributed significantly to the amount of variability. An ANCOVA of these results is presented in Table 11. Figure 2 shows the interaction and is discussed in Chapter 5.

Table 11

ANCOVA Table for Interaction Between Race and Self-Efficacy on Stress

Source of variation	SS	DF	MS	F	p
Total covariates (4)	33.35	4	8.34	24.89	< .001
Main effects	.34	4	.08	.26	.900
Race	.01	1	.01	.03	.860
Self-efficacy	.34	3	.11	.34	.800
2-way Interactions					
Race x self-efficacy	3.16	2	1.58	4.72	.010
Residual	19.76	59	.34		
Total	56.61	69	.82		

Note. ANCOVA = Analysis of covariance.

The effects of self-efficacy on stress were different for the two races. The interaction of self-efficacy and

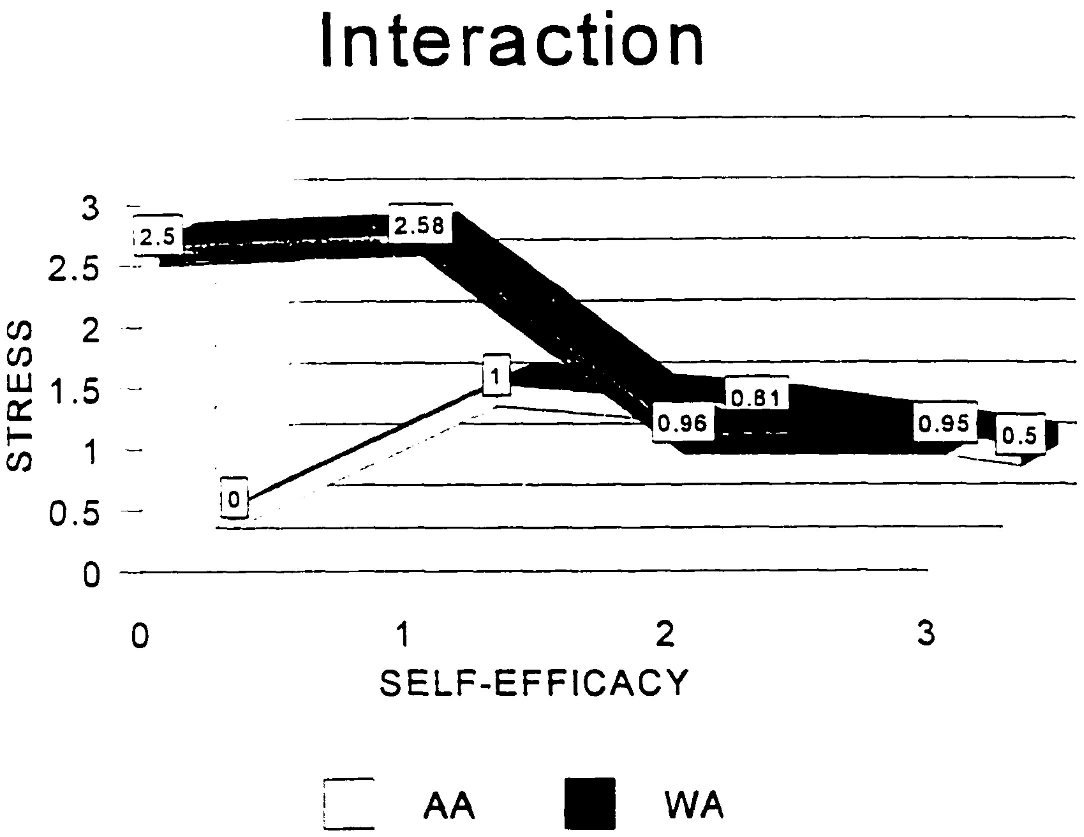

Figure 2. Interaction between self-efficacy and stress by race. AA = African American, WA = White American.

stress was disordinal, which means one group differs from the other (Stevens, 1992, p. 304). Simple main effects of stress (Table 12) on self-efficacy by race showed no significance with the African American caregivers. Stress was not related to self-efficacy for the African Americans. For White American caregivers, stress was significantly related to self-efficacy, with a negative relationship between stress and self-efficacy.

Table 12

Simple Main Effects of Stress on Self-Efficacy by Race

Race	Beta	t	p
African Americans	-.14	-1.36	.18
White Americans	-.23	-2.70	.01

Research Question 3

Is there a significant interaction between race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's social support, controlling for relationship, socioeconomic status, stress, depression, and life satisfaction? Social support was operationalized as both the network of people who supported the caregiver and the satisfaction the caregiver had related to that support. There were no significant interaction effects between race and self-efficacy for either social support measure. An

ANCOVA table is seen in Tables 13 and 14 for social support network size and satisfaction.

Table 13

ANCOVA Table for Interaction Between Race and Self-Efficacy on Social Support Network Size

Source of variation	SS	DF	MS	F	p
Total covariates (4)	1048.23	5	209.65	3.52	.01
Main effects	70.37	4	17.59	.29	.88
Race	.74	1	.74	.01	.91
Self-efficacy	48.73	3	22.91	.39	.76
2-way interactions					
Race X self-efficacy	9.94	2	4.97	.08	.92
Residual	3452.95	58	59.53		
Total	4581.49	69	66.40		

Table 14

ANCOVA Table for Interaction Between Race and Self-Efficacy on Social Support Satisfaction

Source of variation	SS	DF	MS	F	p
Total covariates (4)	1371.02	5	274.21	8.15	<.001
Main effects	212.95	4	53.24	1.58	.190
Race	46.16	1	46.16	1.37	.250
Self-efficacy	167.59	3	55.86	1.66	.190
2-way interactions					
Race X self-efficacy	114.14	2	57.07	1.70	.190
Residual	1952.53	58	33.66		
Total	3650.64	69	52.91		

Research Question 4

Is there a significant interaction between race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's coping, controlling for relationship, socioeconomic status, stress, depression, and life satisfaction? There were no significant interactions between race and caregiving self-efficacy on the caregiver's coping when controlling for relationship, socioeconomic status, stress, depression, and life satisfaction. A series of ANCOVAs ($p < .05$) demonstrated no significant differences between the racial groups on the eight coping subscales.

Research Question 5

Is there a significant interaction between race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's depression, controlling for relationship, socioeconomic status, stress, and life satisfaction? The interaction between race and caregiving self-efficacy did not significantly influence the caregiver's depression when controlling for relationship, socioeconomic status, stress, and life satisfaction. The ANCOVA table can be seen in Table 15.

Research Question 6

Is there a significant interaction between race and caregiving self-efficacy of female caregivers of bedbound elders on the caregiver's life satisfaction, controlling

Table 15

ANCOVA Table for Interaction Between Race and Self-Efficacy on Depression

Source of variation	SS	DF	MS	F	p
Total covariates (4)	6615.20	4	1528.80	19.94	< .001
Main effects	122.83	4	30.71	.40	.810
Race	5.36	1	5.36	.07	.790
Self-efficacy	116.09	3	38.70	.51	.680
2-way interactions					
Race X self-efficacy	210.36	2	105.17	1.37	.260
Residual	4522.98	59	76.66		
Total	1097.37	69	159.01		

for relationship, socioeconomic status, stress, and depression? The interaction of race and caregiving self-efficacy on the caregiver's life satisfaction when controlling for relationship, socioeconomic status, stress, depression, and life satisfaction was significant, p = .01 (df = 2,59; F = 4.82). However, only the covariates of stress and depression contributed significantly to the variability. The ANCOVA table for these results is presented in Table 16. Figure 3 shows the interaction and is discussed further in Chapter 5.

The effects of self-efficacy on life satisfaction were significantly positive for both African American and White American caregivers. However, the presence of the significant interaction indicates that the slope of the regression line for life satisfaction on self-efficacy for

Table 16

ANCOVA Table for Interaction Between Race and Self-Efficacy on Life Satisfaction

Source of variation	SS	DF	MS	F	p
Total covariates (4)	1679.355	4	419.84	23.27	< .001
Main effects	269.39	4	42.35	3.29	.070
Race	59.40	1	59.40	3.29	.070
Self-efficacy	138.10	3	46.03	2.55	.060
2-way interactions					
Race X self-efficacy	174.04	2	87.02	4.82	.010
Residual	1064.66	59	18.05		
Total	3087.44	69	44.75		

African Americans is significantly different than for White American Caregivers. The simple main effects can be seen in Table 17.

Table 17

Simple Main Effects of Life Satisfaction on Self-Efficacy by Race

Race	Beta	t	p
African Americans	.59	4.29	.001
White Americans	.40	2.60	.010

The chapter has presented findings in relation to the research study. There were some significant demographic

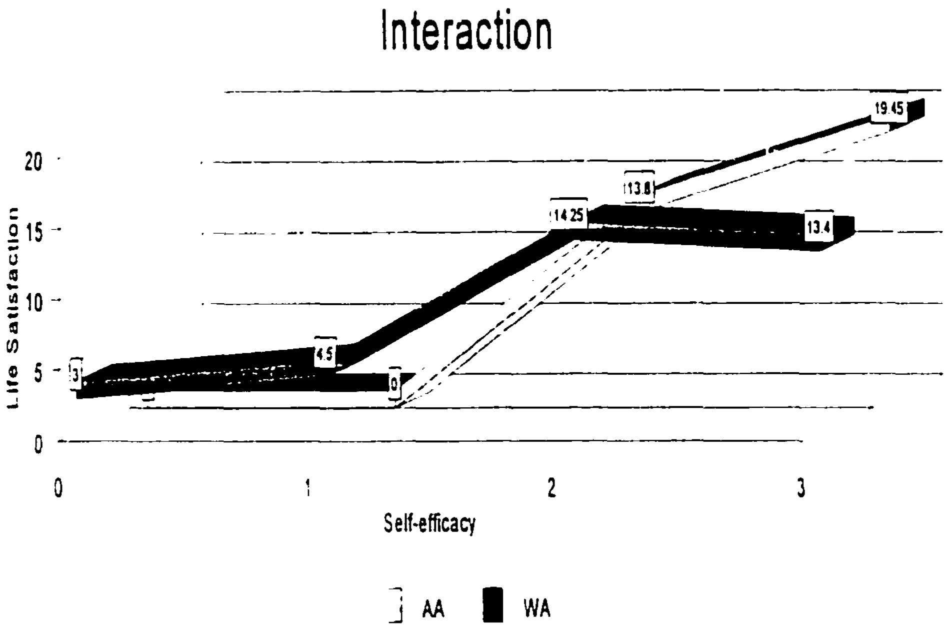

Figure 3. Interaction between self-efficacy and life satisfaction by race. AA = African American, WA = White American.

differences between the two racial groups. White American caregivers were older and more often married spouses of the bedbound elder. African American caregivers were typically daughters or nonfamily members and more often widowed or single.

In summary, African American and White American caregivers differed in self-efficacy (Research Question 1). In addition, the interaction between self-efficacy and race influenced stress and life satisfaction (Research Questions 2 and 6). However there were no interactions on self-efficacy and race between social support, coping, and depression (Research Questions 3, 4, and 5). Findings are discussed in Chapter 5.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

This chapter places the findings from the study within the context of the existing literature. Based on the purpose of this study to compare White American and African American female caregivers of bedbound elders, the research questions, instruments, and sample of the study are addressed. Conclusions, implications, and recommendations are presented.

Caregiving Self-Efficacy Between Races

This study was implemented to explore differences in self-efficacy of caregivers of bedbound elders by race. The first research question sought to determine if there was an overall difference in perceived self-efficacy scores between African American and White American caregivers. Haley et al. (1996) reported that race had an impact on appraisal and coping responses. They also reported that African American caregivers have higher self-efficacy scores, lower stress scores, and lower depression scores when compared to White American caregivers and that these variances are explained by cultural differences in values, beliefs, and life experiences of the two races.

The findings of this study indicate that African American and White American caregivers appraise themselves differently on caregiving tasks. Despite comparable functional impairments based on ADLs among the bedbound elders, self-efficacy was different for the two races. African Americans reported lower self-efficacy scores, lower stress, lower depression scores, and higher life satisfaction than the White American caregivers.

One factor that may have influenced the difference in caregiving self-efficacy was the difference in familial relationships between caregivers and the bedbound elders in the two groups. As noted in findings from numerous, earlier studies (Biegel et al., 1991; Burton et al., 1995; Hinrichsen & Ramirez, 1992; Lawton et al., 1992), the majority of White Americans in this study also were spouses; the majority of African American caregivers were the adult children of the bedbound elders. Differences in the personal caregiving self-efficacy may have been reflective of differences in caregiving patterns for the two races. That is, the African American caregivers (adult children) reported a larger social support network and greater use of home care services. To them, caregiving (and thus caregiving efficacy) was more of a shared experience. In contrast, the White American caregivers (most frequently spouses) reported a smaller social support network and used fewer home care services. For them, caregiving was a more personal issue and was highly dependent on their personal skills (self-efficacy).

The effects of different familial relationships (spouse versus nonspouse) on the types of caregiving tasks performed and on caregiving self-efficacy need further exploration. In view of the fact that the number of non-relative caregivers may increase in the aging U.S. population, caregiving characteristics of nonrelative caregivers should be examined in future studies.

The Interaction Between Race and Caregiving Self-Efficacy

Research Questions 2 through 6 explored whether interactions existed between caregiver race and self-efficacy for the variables of stress, social support, coping, depression, and life satisfaction. These variables are discussed as follows.

Stress. The two races of caregivers differed in stress. According to Gordon-Bradshaw in 1987, African American caregivers reported lower stress than White Americans. Harper and Lund (1990) reported wife caregivers had higher levels of stress than nonwife caregivers. In this study, significant interaction existed between race and self-efficacy on stress. Stress levels were not correlated with self-efficacy scores for African American caregivers. In contrast, for the White Americans, a positive correlation between stress and self-efficacy was seen.

These findings also may be related to the larger percentage of White American caregivers who were spouses in this sample. Based on Harper and Lund's (1990) conclusions that spousal caregivers have more stress, it is understandable that they would have more stress. The marital bond with the bedbound elder may have caused the White American caregivers to feel greater responsibility for caregiving, expecting themselves to provide perfect care and become an "expert" in the spouses' care. These spousal caregivers also may have used fewer external resources because of their belief they must "do it themselves." This, in turn, may have caused the greater incidence of depressive symptoms and lessened life satisfaction reported by these White American spousal caregivers.

Social support. No differences in social support existed between races in this study; however, differences in social support by race have been identified in the literature (Haley et al., 1995; Haley et al., 1996; Wood & Parham, 1990). African Americans are reported to have more networks outside of the family and receive more visits from friends and relatives than White American caregivers (Haley et al., 1995). In 1995, Haley et al. explained that, despite similarities, the style of social activities varies among races. More distant or nonrelatives are used as substitute caregivers by African Americans, a finding also reported by Chatters et al. (1985). In 1990, Wood and Parham reported that African Americans are more likely to live in extended family situations and rely on other family members for support. The larger social network reported by the African American caregiver sample in this study may have been indicative of extended families with more nonrelatives as substitute caregivers and pseudo-kin relationships. The lower annual income response by African American caregivers may explain extended family residence in these African American families.

In this study, no significant interactions between race and self-efficacy existed for social support (either network size or satisfaction). However, African Americans did report a higher social network size (14.08) compared to White Americans (12.31). For African Americans, social support satisfaction and self-efficacy were positively correlated. Strong bivariate correlations also existed between social support satisfaction and self-efficacy, depression, life satisfaction, and network size (Table 7). That is, the higher the satisfaction with their support network, the higher the African American groups' self-efficacy, network size, and life satisfaction and the lower the depression.

Coping. The two races did not differ in their ways of coping. Yet, different coping strategies have been identified for the races (Haley et al., 1996; Lawton et al., 1992; Picot, 1995; Wood & Parham, 1990). Haley et. al. (1996) reported that caregivers who do not perceive caregiving as stressful will not use diverse coping strategies. They also reported that, as a group, African

Americans use fewer, different, coping strategies. Haley et al.(1996) also discussed how expectations of life are very different, with African Americans complaining less and accepting caregiving because no other choices were available. In contrast, White American caregivers are believed to expect more from their lives, such as vacations and recreation with retirement.

Many factors may have contributed to the number of coping strategies reported by both groups of caregivers. First, coping is thought to be influenced by the amount of time spent in a situation. Wallhagen (1993) explained that coping can change; over a span of time, people will cope differently. As coping strategies are learned, there is a decrease in stress levels. Both the African American and White American caregivers were relatively experienced in caregiving. The time in the caregiving role may have impacted the reduced stress and lower number of coping skills used. In profiling caregivers nationally, Stone, Cafferata, and Sangl (1987) reported only 20.2% of caregivers had been caregiving for longer than 5 years. In contrast, 46% of the caregivers in this study had been caregiving for 5 years and over. Given the sampling frame of caregivers of bedbound elders, the two groups surveyed likely represented only those caregivers who had long-term caregiving experience.

A second reason why coping strategies did not differ may be because the caregivers (both African American and White American) were all women from the same geographic region, many of whom reported a long residence in their rural communities and thus possibly had similar learned coping strategies. Further, all subjects resided in the "Bible Belt" of Mississippi, an area in southern and Midwestern United States where Protestant fundamentalism prevails (Boles, 1996). Yet, it is puzzling to note that only 2.8% of the caregivers reported receiving any help from their church communities.

Third, the reliability of the RWCCL instrument is of question (shown previously in Table 9) and may have contributed to the insignificant findings of group differences by race. This is discussed later in this chapter.

Depression. Depression did not differ by race of caregivers; however, earlier studies by Lawton et al.(1992) reported that White American caregivers are more depressed than African Americans. Based on findings from their study, Pruchno and Potashnik (1989) reported spousal caregivers are more depressed than nonspousal caregivers. Comparable racial differences in depression scores are seen in other studies (Haley et al., 1996; Haley et al., in press).

Despite statistically insignificant differences in depression scores, African Americans and White Americans had mean CES-D scores of 12.36 and 17.76, respectively (median scores were 10 and 11.5, respectively). According to the recommended scores for the CES-D instrument, a score of 16 or higher indicates a depressed state (Radloff, 1977). Thus, the White American caregivers as a group were clinically depressed according to CES-D scores. If feelings of stress are a factor in predicting depression, it is understandable that the White caregivers in this study, who reported higher stress, were more depressed. Based on the findings by Harper and Lund (1990), the majority of the White caregiver spouses would be expected to report depression. Surprisingly, African American caregivers reported less depression, despite the fact that they had lower socioeconomic status and higher divorce rates and often were single daughter caregivers.

It has also been suggested that the level of depression is influenced by the functional impairments (dependency) of the patient; that is, the higher the impairment, the higher the depression (Deimling & Bass, 1986). However, in this study, the functional impairments of the bedbound elders were not significantly different between races. In this study, no group differences existed in functional impairments of the bedbound elders.

Life satisfaction. Differences in life satisfaction between the two races did exist. Life satisfaction has been linked with social support systems and leisure time activities by Kinney and Coyle (1992), reporting that people with more social support have more time for leisure activities, consequently, increasing life satisfaction.

An interaction between race and self-efficacy on life satisfaction did exist in this study. African Americans and

White Americans reported significant differences on life satisfaction with African American caregivers reporting higher life satisfaction scores than White American caregivers. This disordinal finding may be influenced by fewer social support networks reported by these White American caregivers. Despite having a higher degree of self-efficacy, the White caregiver is not able to utilize the social support network needed (perhaps for respite time), and this, in turn, lowered life satisfaction.

African American caregivers, who were primarily adult daughters, reported higher life satisfaction. With a nigher network size and more satisfaction with their social support network size, the African Americans may have received more caregiving assistance from their support network.

White American caregivers were older (x = 61.89 years) and more often spouses, than the African Americans. The median age for African American and White American caregivers was 56 and 63.5, respectively. It is possible that these older White American spouses' higher depression levels were indicative that a significant part of their own lives was drawing to a close with the increasing frailty of their spouse. In contrast, African American caregivers (typically daughters) may have seen caregiving as a filial responsibility but not necessarily as a final endpoint in their own lives. Again, the importance of further study of familial relationship effects on caregiver perceptions is greatly needed.

Conceptual Model

This study was based on the conceptual model seen in Figure 4. Race was proposed to influence stress and the responses to stress including self-efficacy, coping, and social support. The responses to stress through these variables can determine depression and life satisfaction.

Despite comparable ADL demands, African Americans differed from White Americans with lower stress, lower self-efficacy, lower depression, and higher life satisfaction. One explanation for this may be the social support network size and the satisfaction with the social support received, both higher in the African Americans. Also, more African Americans were adult children of bedbound elders and the sense of personal and exclusive responsibility may have been less, making it easier to seek and use social support assistance from others.

Bandura's (1977) self-efficacy theory indicates how a person appraises himself in a role can affect stress. People with strong self-efficacy perceptions will keep working at a task despite all odds and in the face of many stressors which in turn determines coping efforts. Lazarus's (1984) stress-coping-adaptation theory defines stress as demands that exceed one's coping abilities. In this study, self-efficacy and stress were influenced by racial differences. African Americans appraised themselves differently, with implications that stressors of caregiving did not exceed their coping abilities. White Americans reported higher levels of stress, as well as higher levels

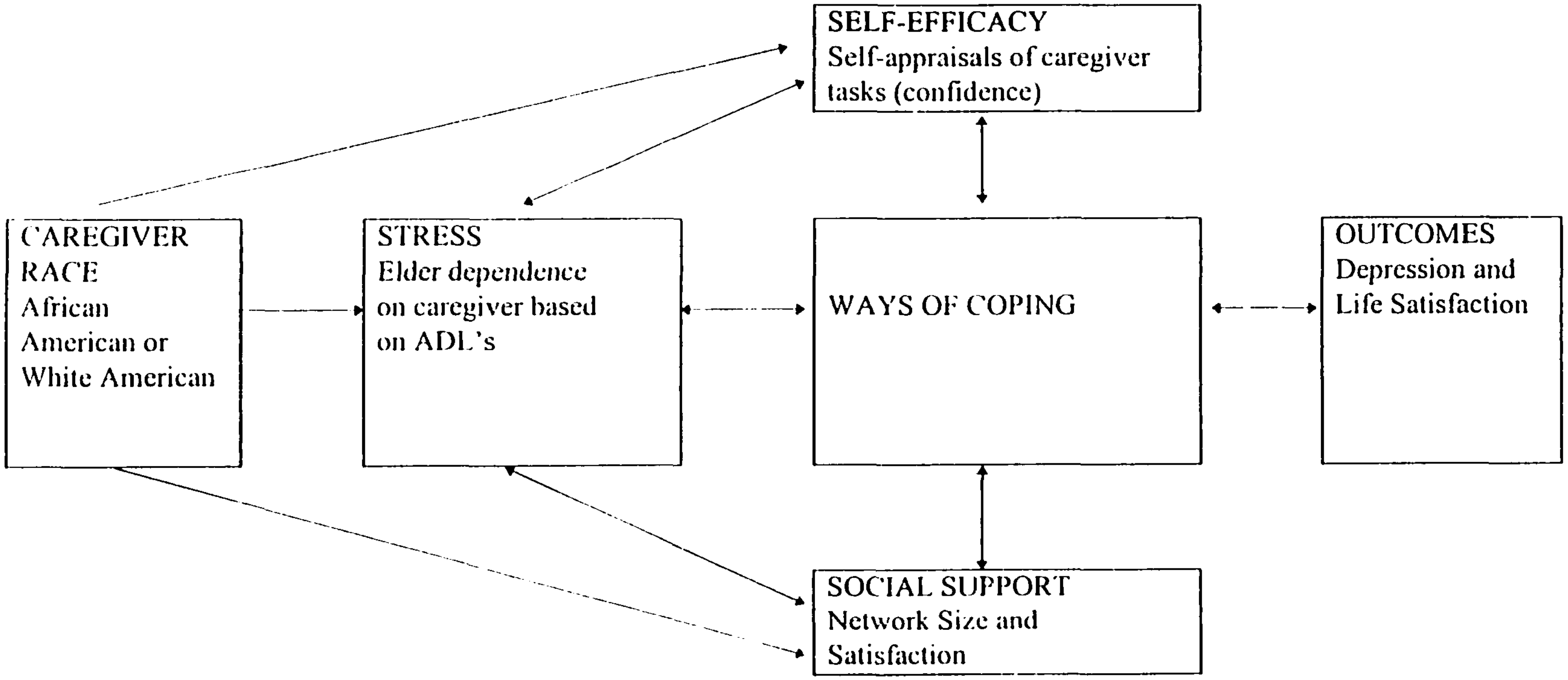

Figure 4. Theoretical model. ADL = activities of daily living.

of personal self-efficacy. Yet, the White Americans also had higher depression levels, with the group CES-D mean above the level identified for clinical depression. Further, White Americans reported a fewer number of persons in their support network and lower satisfaction with their support network. This, in turn, correlated with lower life satisfaction.

African Americans did not appraise caregiving as stressful as White Americans. This may be due to cultural differences or differences in life experiences of the African Americans and White Americans. Family confidence in problem solving and the ability to work together were identified by Fink (1995) as important factors in maintaining well-being. For these African Americans, with their larger network size, caregiving was less personally stressful.

When families have more adequate resources, there should be less strain and a higher feeling of well-being. Adequate resources might include a greater social support network, health insurance, or other financial assistance (like Medicare or Medicaid). Because 66% of the African Americans earned $10,000 or less, they possibly also had more governmental agency assistance than White American caregivers. These African Americans reported more home health care visits (an additional caregiving resource). These various differences between the two caregiving groups suggest the linkages between stress, self-efficacy, social support, and coping are different for the two groups.

This exploratory, cross-sectional study included data collection at one point in the caregiving experience. Long-term differences among the two races on hopefulness, acceptance, and feelings that their caregiving efforts were for a purpose were not explored. These factors also may be important in that they may influence the degree of depression and life satisfaction the caregivers of bedbound elders experience over time. Also, differences in races may be indicative of different models necessary to explain the caregiving phenomena by race.

The Ways of Coping Instrument

Most of the instruments in the study had adequate reliability. However, only two of the coping subscales (wishful thinking and blames others) had alphas greater than .70. According to Vitaliano et al. (1985), the coping instrument was derived from Lazarus' Transactional Model of Stress, identifying self-appraisals to measure well-being. The norm-referenced framework has been tested for reliability and validity in a variety of populations including Alzheimer's spousal caregivers. Because of low reliability on several subscales in this study, future use of this coping scale should include a pilot test of the measure with racially diverse subjects to ensure adequate reliability.

The Sample

In the review of the literature, few studies were found on caregivers who take care of bedbound elders in the home. Library searches from Cumulative Index of Nursing and Allied Health, Psychological Literature, MEDLINE, and Dissertation Abstract Online revealed only one dissertation abstract on the topic in the data bases that was a qualitative study on the lived experience of being a caregiver for a bedbound patient (Lewis, 1995). The majority of previous studies of caregivers of adult patients have primarily dealt with White caregivers of Alzheimer's patients, frail elderly, demented elderly, or neurological patients (CVA, head injuries). Those early studies contributed little to the understanding of how African American caregivers cope with the stresses of caregiving in the home.

The current study was an effort to contrast two racial groups on stress, coping, adaptation, and caregiving self-efficacy as variables commonly correlated with caregiver outcomes. The study is perceived as an important step in exploring the impact of ethnicity on caregiving for a bedbound elder.

Conclusions

Based on the findings of this research, the following conclusions were generated.

1. A difference in caregiving self-efficacy existed between African American and White American caregivers.

2. A significant interaction existed between race and self-efficacy on stress and life satisfaction among African American and White American caregivers.

3. Significant differences existed between African American and White American caregivers in familial relationships with the bedbound elders, socioeconomic status (income), self-efficacy, stress, and life satisfaction.

4. No significant differences were found between the African American and White American caregivers on social support (network size and satisfaction) or coping.

Recommendations

This is one of the first studies to compare caregivers of homebound, bedbound elders. Past findings of studies of caregivers of adult patients have focused primarily on White caregivers of Alzheimer's patients and the frail elderly. Doing research in the home is difficult. It requires a trust between the caregiver in the home and the researcher, as well as travel and access to caregivers' homes. Yet the findings of differences in these two caregiver groups indicate that researchers must make such an effort to increase the number of community-based caregiving studies. Recommendations for future studies are as follows.

1. The first recommendation is to explore differences in other racial groups of caregivers. For example, Hispanics are expected to make up a large

proportion of the U.S. population by 2010 (Biegel et al., 1991). The significant differences between these two racially different groups indicate a need to develop and test caregiver coping and adaptation models that acknowledge cultural diversity in caregiving outcomes. Identifying cultural differences in caregiving may help health care providers offer culturally sensitive care for the increasingly diverse population of future caregivers.

2. The second recommendation is to replicate this study with a larger sample of African American and White American caregivers to determine whether significant differences in coping strategies are stable between these races of caregivers of bedbound elders. To accomplish this, a more reliable coping measure is needed.

3. The third recommendation is to determine the ways in which self-appraisal determines self-efficacy for a caregiver. This might include exploring the degree of perceived difficulty and self-efficacy around selected tasks of caregiving.

4. The fourth recommendation is to develop and determine the effects of selected interventions on the depression and life satisfaction of caregivers of bedbound elders. Caregiver stress is an important predictor of institutionalization (Hinrichsen & Ramirez, 1992). For example, can respite affect depression and life satisfaction of the caregiver of a bedbound elder? Does respite care influence a rural caregiver's decision to institutionalize the bedbound elder? Respite options (which

can include home respite, adult day care respite, group respite program, overnight out of home respite, and respite weekends) have been found efficacious for caregivers in urban areas (Feinberg & Kelly, 1995). Whether such services can be realistically offered in rural areas, such as the state where this study was conducted, needs exploration.

5. The fifth recommendation is to explore interventions that reduce the isolation that rural caregivers often experience. For example, would rural caregivers who had access to health care knowledge, communication, and technological resources (e.g., a personal computer with access to health professionals) express less depression and more life satisfaction? Could Internet access help rural caregivers? Technologies which increase communication with urban health care agencies and for other caregivers may decrease rural caregivers' feelings of isolation, reduce their depression, and increase life satisfaction.

6. The sixth recommendation is to conduct longitudinal studies to look at changes in stress, self-efficacy, social support, coping, depression, and life satisfaction over time. Additional variables to include might be hope, acceptance, and what Pearlin describes as "mattering" (Skaff et al., 1996).

In conclusion, this study demonstrated several differences in racially diverse caregivers of bedbound elders in the home. Home health care professionals must have an empirically based understanding of racially influenced differences in home care. These issues should be addressed in broader orientation, continuing education, and program development. Family caregivers of bedbound elders reduce the financial burden on an already stressed American health care system. Supporting these individuals requires culturally sensitive programs that acknowledge differing caregiver needs.

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APPENDIX A

CONSENT FORM

CONSENT FORM

EXPLANATION OF PROCEDURES:

I understand that I am being asked to participate in a research study called A Comparison of self-efficacy, stress, social support, coping, depression, and life satisfaction of White American and African American female caregivers with elderly bedbound patients. The study is being conducted by Norma Cuellar, R.N., a doctoral student at the School of Nursing at the University of Alabama at Birmingham. The purpose of this study is to compare the differences of caregiving between African Americans and White Americans.

If I decide to participate, I understand that I will be asked to complete questionnaires about personal data, stress, confidence (self-efficacy), social support, coping, depression, and life satisfaction. I will participate in an interview that will last approximately one hour. A registered nurse will be with me at the time of the interview.

RISKS AND DISCOMFORTS:

I understand that some of the questions I will be asked will be based on my caregiving and the stress, social support, coping, depression, and life satisfaction as a result of caregiving. A social worker will be available through the home health agency should the need arise due to emotional responses of the questionnaires.

BENEFITS:

The benefits of this project will be to help nurses identify differences in racial caregiving and develop specific ways of helping caregivers based on the differences identified in this study.

CONFIDENTIALITY:

I understand that all information will be strictly confidential and that neither I nor the person I am caregiver for will be identified by name in any material about the study. I understand that the results of this study will be published for scientific purposes but only Ms. Cuellar will have access to information obtained in the study.

WITHDRAWAL WITHOUT PREJUDICE:

I understand that I am free to withdraw from the study at any time without prejudice of care my family members or I receive from the home health agency. Participation is strictly voluntary.

COSTS TO SUBJECTS:

There is no cost to me related to this project.

Participant's Initials ______________

PAYMENT FOR RESEARCH RELATED INJURIES:

There are no monetary provisions for compensations in the event of injury while participating in this project. University of Alabama at Birmingham has made no provision for monetary compensation in the event of injury resulting from the research.

QUESTIONS:

If I have any questions, I can call Ms. Cuellar at (___) ___-____ or ___-____. Dr. Linda Davis, chair person of the doctoral committee, can also be called in event of any questions at (___) ___-____.

AGREEMENT:

I have received a copy of this consent form. I understand that I am not waiving any of my legal rights by signing this consent form. My signature below indicates I agree to participate in this study.

Signature of Caregiver Subject	Date
Signature of Investigator	Date
Signature of Witness	Date

APPENDIX B

QUESTIONNAIRES

Code # ______________
Interviewer's Initials _____
Date _______________

CAREGIVER RESEARCH PROJECT
INITIAL CG INTERVIEW

Age ___ D.O.B.________ Race___

1. How many hours <u>per day</u> is your patient awake?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

2. How many hours <u>per day</u> does your patient lie in bed?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

3. What is your relationship to your patient?

Spouse (Husband) .... ______
Daughter .... ______
Son.... .... ______
Daughter-in-law/Son-in-law .... ______
Sister/Brother .... ______
Granddaughter/Grandson .... ______
Other (specify) .... ______

4. Is your (CG) marital status

Married .... ______
Divorced.. .... ______
Widowed .... ______
Separated .... ______
Single, never married .... ______

5. Are you currently: (Read responses to CG)

Employed full-time. .... ______
Employed part-time (Less than 20 hours) .... ______
Retired or not employed .... ______
Homemaker .... ______

6. How has caring for your patient affected your employment?
Caused you to retire or cut down on work________
Caused you to return to work or increase your hours __
No effect ______

7. How many years have you been providing help or care for your patient?

1 2 3 4 5 6 7 8 9 10 >10

8. Do you live with your patient? Yes___No ___

a. If YES how many people live in the household besides you and your patient?
1 2 3 4 5 6 7 8 9 10

b. If NO, how many people live with your patient?
1 2 3 4 5 6 7 8 9 10

c. If NO, how many people live in your household besides you?

1 2 3 4 5 6 7 8 9 10

9. On average, how many hours per week do you spend with your patient? _____

10. On average, how many hours per week do you spend taking care of your patient. Include any kind of help, such as watching the patient, cooking, dressing or bathing, arranging care, and providing transportation. __________

11. Over the past month, how many different people in the following categories have helped you care for your patient? (Include as above. **NOTE**: Categories are mutually exclusive-helpers should be counted in only one category.)
Immediate family who live with you or your patient.........................._____
Other family.._____
Neighbors.._____
Friends from church..._____
Other friends.._____

12. Over the past month, how many times have you used the following services to help in the care of your patient?

Adult day care.._____
Meals on Wheels.._____
Support group..._____
Sitter service in the home.._____
Home health care services..._____
Respite services, such as a short stay in a hospital or nursing home......._____
Homemaker (or maid) services..._____

13. (Sources of information)

a. Have you ever attended a meeting of a support group for caregivers? Yes ___ No ___

b. Have you ever received a newsletter from any group concerned with the problem of caregivers? Yes___ No___

c. Have you ever read a book about caregiving? Yes___ No___

d. Have you learned anything about caregiving from a newspaper or magazine article? Yes___ No___

e. Have you learned anything about caregiving from television? Yes ___ No ___

f. Have you learned anything about caregiving from relatives or friends? Yes ___ No ___

14. Please identify your income bracket:

_________0-10,000
_________10,001-20,000
_________20,001-30,000
_________30,001-40,000
_________40,001-50,000
_________50,001-60,000
_________over 60,000

ACTIVITIES OF DAILY LIVING SCALE

Now I am going to ask you some questions about the specific kinds of problems your _____ has been having lately. For each area, I will ask you whether your patient has needed any assistance with this task over the past week such as "Does your patient need any kind of help with bathing?" Help means supervision, direction or personal assistance. If your patient does need help in an area, I will ask you what kind of help is needed and several questions about your personal reaction or feelings about this problem. First, I will ask you how stressful or upsetting you find your_____ 's need for help with this task. Use the same zero to three rating scale we've been using. Then, I will ask you to rate how confident you are that you are making the best response possible to this problem, again using the zero to three point scale (point). Rate how you have felt over the past week. Let's try the first one:

O = Not at all
1 = Somewhat
2 = Very
3 = Extremely

("Stressful" means how upsetting this problem is when it occurs. "Confidence" refers to the degree to which the caregiver feels they are making the most effective response possible to this problem.)

ACTIVITY

A. **Bathing** (either sponge bath, tub bath or shower)

Does your _____ need any kind of help with bathing? Yes ___ No ___

1. Receives no assistance (gets in and out of tub by self if tub is usual means).
2. Receives assistance in bathing only one part of the body (such as back or a leg)
3. Receives assistance in bathing more than one part of the body (or not bathed)

How stressful or upsetting is it for you, on the zero to three scale (point), that your_____ needs help with bathing? 0 1 2 3

How confident are you that you are making the best possible response to your_____ 's inability to bathe, on a zero to three scale? 0 1 2 3

B. **Dressing** (gets clothes from closets and drawers -- including underclothes, outer garments and using fasteners [including braces, if worn])

Does your _____ need any kind of help with dressing? Yes__ No__

1. Gets clothes and gets completely dressed without assistance.
2. Gets clothes and gets dressed without assistance except for assistance in tying shoes.
3. Receives assistance in getting clothes, or in getting dressed, or stays partly or completely undressed.

How stressful or upsetting is it for you, on the zero to three scale (point), that your___ __needs help with dressing? 0 1 2 3

How confident are you that you are making the best possible response to your_____'s inability to dress him/herself, on a zero to three scale? 0 1 2 3

C. **Toileting** (going to the "toilet room" for bowel and urine elimination; cleaning self after elimination, and arranging clothes)

Does your _____ need any kind of help going to the bathroom or Toileting? Yes __ No __

1. Goes to "toilet room", cleans self, and arranges clothes without assistance (may use object for support such as cane, walker, or wheelchair and may manage night bedpan or commode, emptying same in morning).
2. Receives assistance in going to "toilet room" or in cleansing self or in arranging clothes after elimination or in use of night bedpan or commode.
3. Doesn't go to room termed "toilet" for the elimination process.

How stressful or upsetting is it for you, on the zero to three scale (point), that your___ __needs help with this? 0 1 2 3

How confident are you that you are making the best possible response to this problem on the zero to three point scale? 0 1 2 3

D. Transfer

Does your _____ need any kind of help with transferring in or out of the bed or chair? Yes __ No ___

1. Moves in and out of bed as well as in and out of chair without assistance (may be using object for support such as cane or walker).
2. Moves in or out of bed or chair with assistance.
3. Doesn't get out of bed.

How stressful or upsetting is it for you, on the zero to three scale (point), that your___ __needs help with this? 0 1 2 3

How confident are you that you are making the best possible response to this problem on the zero to three point scale? 0 1 2 3

E. Continence

Does your ______ have any accidents, such as wetting, in going to the bathroom? Yes ___ No ___

1. Controls urination and bowel movement completely by self.
2. Has occasional "accidents".
3. Supervision helps keep urine or bowel control, catheter is used, or is incontinent.

How stressful or upsetting is it for you, on the zero to three scale (point), that your___ __needs help with this? 0 1 2 3

How confident are you that you are making the best possible response to this problem on the zero to three point scale? 0 1 2 3

F. **Feeding**

Does your ______ need any kind of help with feeding him/herself?

Yes ___ No ___

1. Feeds self without assistance.
2. Feeds self except for getting assistance in cutting meat or buttering bread.
3. Receives assistance in feeding or is fed partly or completely by using tubes or intravenous fluids.

How stressful or upsetting is it for you, on the zero to three scale (point), that your ____ _ needs help with this? 0 1 2 3

How confident are you that you are making the best possible response to this problem on the zero to three point scale? 0 1 2 3

SOCIAL SUPPORT QUESTIONNAIRE - SHORT FORM REVISED
(SSQSR)

Instructions: Now I'm going to ask you some questions about people who provide you with help or support. For example I'll ask, "Whom can you really count on to be dependable when you need help?" Tell me each person's first name and their relationship to you. If you have no support in an area, say, "no one". Then I will ask you how satisfied you are with the overall support you have in each area. Let's try the first question.

1. Whom can you really count on to be dependable when you need help? You may say, "no one" or list up to nine people. Let me know when you're finished.

_____ No one	Name	Relation	
	1)		
	2)		Family______
	3)		(In either household)
	4)		
	5)		Family_______
	6)		(Outside of households)
	7)		
	8)		Other_______
	9)		

2. How satisfied are you with the overall support you have in this area? Use the scale on the back of this card (have subject flip card over to the 6-point scale).

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

3. Whom can you really count on to help you feel more relaxed when you are under pressure or tense? You may repeat names you have already mentioned. Please let me know when you're finished.

_____ No one	Name	Relation	
	1)		
	2)		Family_______
	3)		(In either household)
	4)		
	5)		Family_______
	6)		(Outside of households)
	7)		
	8)		Other_______
	9)		

4. How satisfied are you with the overall support you have in this area?

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

5. Who accepts you totally, including both your worst and your best points?

_____ No one	Name	Relation	
	1)		
	2)		Family_______
	3)		(In either household)
	4)		
	5)		Family_______
	6)		(Outside of households)
	7)		
	8)		Other_______
	9)		

6. How satisfied are you with the overall support you have in this area?

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

7. Whom can you really count on to care about you regardless of what is happening to you?

_____ No one Name Relation

1)

2) Family_______

3) (In either household)

4)

5) Family_______

6) (Outside of households)

7)

8) Other_______

9)

8. How satisfied are you with the overall support you have in this area?

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

9. Whom can you really count on to help you feel better when you are feeling generally down in the dumps?

_____ No one Name Relation

1)

2) Family_______

3) (In either household)

4)

5) Family_______

6) (Outside of households)

7)

8) Other_______

9)

10. How satisfied are you with the overall support you have in this area?

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

11. Whom can you count on to console you when you are very upset?

_____ No one	Name	Relation	
	1)		
	2)		Family_______
	3)		(In either household)
	4)		
	5)		Family_______
	6)		(Outside of households)
	7)		
	8)		Other_______
	9)		

12. How satisfied are you with the overall support you have in this area?

6 - very satisfied	5-fairly satisfied	4-a little satisfied	3-a little dissatisfied	2-fairly dissatisfied	1-very dissatisfied	_____ (Score)

REVISED WAYS OF COPING CHECKLIST (RWCCL)

Please list your major problem (caregiving)________________________________

The items below represent ways that you may have dealt with the major problem you listed above. We are interested in the degree to which you have used each of the following thoughts/behaviors in order to deal with this problem. Please check the appropriate column if the thoughts/behaviors were: never used, rarely used, sometimes used, or regularly used (at least 4 to 5 times per week). NA is used when the thoughts/behavior are inappropriate.

0 = Never used; 1 = Rarely used; 2 = Sometimes Used; 3 = Regularly used;
NA = Not applicable (when inappropriate)

THOUGHTS/BEHAVIOR	0	1	2	3	NA
1. Bargained or compromised to get something positive from a situation.					
2. Counted my blessings.					
3. Blamed myself.					
4. Concentrated on something good that could come out of whole thing.					
5. Kept my feelings to myself.					
6. Figured out who to blame.					
7. Hoped a miracle would happen.					
8. Asked someone I respected for advice and followed it.					
9. Prayed about it.					
10. Talked to someone about how I was feeling.					
11. Stood my ground and fought for what I wanted.					
12. Refused to believe that it had happened.					
13. Criticized or lectured myself.					
14. Took it out on others.					
15. Came up with a couple of different solutions to my problem.					
16. Wished I were a stronger person - more optimistic and forceful.					
17. Accepted my strong feelings, but didn't let them interfere with other things too much.					

0 = Never used; 1 = Rarely used; 2 = Sometimes used;
3 = Regularly used; NA = Not applicable (when inappropriate)

THOUGHTS/BEHAVIORS	0	1	2	3	NA
18. Focused on the good things in my life.					
19. Wished that I could change the way that I felt.					
20. Changed something about myself so that I could deal with the situation better.					
21. Accepted sympathy and understanding from someone.					
22. Got mad at the people or things that caused the problem.					
23. Slept more than usual.					
24. Spoke to my clergyman about it.					
25. Realized I brought the problem on myself.					
26. Felt bad that I couldn't avoid the problem.					
27. I knew what had to be done, so I doubled my efforts and tried harder to make things work.					
28. Thought that others were unfair to me.					
29. Daydreamed or imagined a better time or place than the one I was in.					
30.Tried to forget the whole thing.					
31. Got professional help and did what they recommended.					
32. Changed or grew as a person in a good way.					
33. Blamed others.					
34. Went on as if nothing had happened.					
35. Accepted the next best thing to what I wanted.					
36. Told myself things could be worse.					
37. Talked to someone who could do something concrete about the problem.					
THOUGHTS/BEHAVIOR	0	1	2	3	NA

0 = Never used; 1 = Rarely used; 2 = Sometimes used; 3=Regularly used; NA = Not applicable (when inappropriate)					
38. Tried to make myself feel better by eating, drinking, smoking, taking medications, etc.					
39. Tried not to act too hastily or follow my own hunch.					
40. Changed something so things would turn out right.					
41. Avoided being with people in general.					
42. Thought how much better off I am than others.					
43. Had fantasies or wishes about how things might turn out.					
44. Just took things one step at a time.					
45. Wished the situation would go away or somehow be finished.					
46. Kept others from knowing how bad things were.					
47. Found out what other person was responsible.					
48. Thought about fantastic or unreal things (like the perfect revenge or finding a million dollars).					
49. Came out of the experience better than when I went in.					
50. Told myself how much I have already accomplished.					
51. Wished that I could change what had happened.					
52. Made a plan of action and followed it.					
53. Talked to someone to find out about the situation.					
54. Avoided my problem.					
55. Relied on faith to get me through.					
56. Compared myself to others who are less fortunate.					
57. Tried not to burn my bridges behind me, but left things open somewhat.					

CENTER FOR EPIDEMIOLOGICAL STUDIES-DEPRESSION
(CES-D)

How often during the PAST WEEK would you have made the following statement about yourself? Circle the appropriate number to the right of each statement.

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

DURING THE PAST WEEK:

A.	I was bothered by things that usually don't bother me.	A.	0	1	2	3
B.	I did not feel like eating: my appetite was poor.	B.	0	1	2	3
C.	I felt that I could not shake off the blues even with help from my family or friends.	C.	0	1	2	3
D.	I felt that I was just as good as other people.	D.	0	1	2	3
E.	I had trouble keeping my mind on what I was doing.	E.	0	1	2	3
F.	I felt depressed.	F.	0	1	2	3
G.	I felt that everything I did was an effort.	G.	0	1	2	3
H.	I felt hopeful about the future.	H.	0	1	2	3
I.	I thought my life has been a failure.	I.	0	1	2	3
J.	I felt fearful.	J.	0	1	2	3
K.	My sleep was restless.	K.	0	1	2	3
L.	I was happy.	L.	0	1	2	3
M.	I talked less than usual.	M.	0	1	2	3
N.	I felt lonely.	N.	0	1	2	3
O.	People were unfriendly.	O.	0	1	2	3
P.	I enjoyed life.	P.	0	1	2	3
Q.	I had crying spells.	Q.	0	1	2	3
R.	I felt sad.	R.	0	1	2	3
S.	I felt that people dislike me.	S.	0	1	2	3
T.	I could not get "going".	T.	0	1	2	3

LIFE SATISFACTION INDEX
(LSI-Z)

Here are some statements about life in general that people feel differently about. Would you read each statement on the list, and if you agree with it, put a check in the space under "AGREE". If you do not agree with a statement, put a check mark in the space under "DISAGREE". If you are not sure one way or the other, put a check mark in the space under "?". Please be sure to answer every question on the list.

		Agree	Disagree	?
1.	As I grow older, things seem better than I thought they would be.			
2.	I have gotten more of the breaks in life than most of the people I know.			
3.	This is the most hopeless time of my life.			
4.	I am just as happy as when I was younger.			
5.	These are the best years of my life.			
6.	Most of the things I do are boring or monotonous.			
7.	The things I do are as interesting to me as they ever were.			
8.	As I look back on my life, I am fairly well satisfied.			
9.	I have made plans for things I'll be doing a month or year from now.			
10.	When I think back over my life, I didn't get most of the important things I wanted.			
11.	Compared to other people, I get down in the dumps too often.			
12.	I've gotten pretty much what I expected out of life.			
13.	In spite of what people say, the lot of the average man is getting worse, not better.			

APPENDIX C

IRB APPROVAL

UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Office of the Institutional Review Board for Human Use

IRB APPROVAL

FORM 4: IDENTIFICATION AND CERTIFICATION OF
RESEARCH PROJECTS INVOLVING HUMAN SUBJECTS

THE INSTITUTIONAL REVIEW BOARD (IRB) MUST COMPLETE THIS FORM FOR ALL APPLICATIONS FOR RESEARCH AND TRAINING GRANTS, PROGRAM PROJECT AND CENTER GRANTS, DEMONSTRATION GRANTS, FELLOWSHIPS, TRAINEESHIPS, AWARDS, AND OTHER PROPOSALS WHICH MIGHT INVOLVE THE USE OF HUMAN RESEARCH SUBJECTS INDEPENDENT OF SOURCE OF FUNDING.

THIS FORM DOES NOT APPLY TO APPLICATIONS FOR GRANTS LIMITED TO THE SUPPORT OF CONSTRUCTION, ALTERATIONS AND RENOVATIONS, OR RESEARCH RESOURCES

PRINCIPAL INVESTIGATOR: Norma G. Cuellar

PROJECT TITLE: A Comparison of Caregiving Self-efficacy, Stress, Social Support, Depression, and Life Satisfaction Among African American and White American Female Caregivers of Elder Homebound Patients

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_____ 1. THIS IS A TRAINING GRANT. EACH RESEARCH PROJECT INVOLVING HUMAN SUBJECTS PROPOSED BY TRAINEES MUST BE REVIEWED SEPARATELY BY THE INSTITUTIONAL REVIEW BOARD (IRB)

__X__ 2. THIS APPLICATION INCLUDES RESEARCH INVOLVING HUMAN SUBJECTS. THE IRB HAS REVIEWED AND APPROVED THIS APPLICATION ON 2-27-96 IN ACCORDANCE WITH UAB'S ASSURANCE APPROVED BY THE UNITED STATES PUBLIC HEALTH SERVICE. THE PROJECT WILL BE SUBJECT TO ANNUAL CONTINUING REVIEW AS PROVIDED IN THAT ASSURANCE.

__X__ THIS PROJECT RECEIVED EXPEDITED REVIEW.

_____ THIS PROJECT RECEIVED FULL BOARD REVIEW.

_____ 3. THIS APPLICATION MAY INCLUDE RESEARCH INVOLVING HUMAN SUBJECTS. REVIEW IS PENDING BY THE IRB AS PROVIDED BY UAB'S ASSURANCES. COMPLETION OF REVIEW WILL BE CERTIFIED BY ISSUANCE OF ANOTHER FORM 4 AS SOON AS POSSIBLE.

_____ 4. EXEMPTION IS APPROVED BASED ON EXEMPTION CATEGORY NUMBER(S) __________.

DATE: 2-27-96

Marguerite Kinney
MARGUERITE KINNEY, DNSc
VICE CHAIR OF THE
INSTITUTIONAL REVIEW BOARD

UAB THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM

Office of the Institutional Review Board for Human Use

FORM 4: IDENTIFICATION AND CERTIFICATION OF RESEARCH PROJECTS INVOLVING HUMAN SUBJECTS

THE INSTITUTIONAL REVIEW BOARD (IRB) MUST COMPLETE THIS FORM FOR ALL APPLICATIONS FOR RESEARCH AND TRAINING GRANTS, PROGRAM PROJECT AND CENTER GRANTS, DEMONSTRATION GRANTS, FELLOWSHIPS, TRAINEESHIPS, AWARDS, AND OTHER PROPOSALS WHICH MIGHT INVOLVE THE USE OF HUMAN RESEARCH SUBJECTS INDEPENDENT OF SOURCE OF FUNDING.

THIS FORM DOES NOT APPLY TO APPLICATIONS FOR GRANTS LIMITED TO THE SUPPORT OF CONSTRUCTION, ALTERATIONS AND RENOVATIONS, OR RESEARCH RESOURCES.

PRINCIPAL INVESTIGATOR: Norma G. Cuellar

PROJECT TITLE: A Comparison of Caregiving Self-Efficacy, Stress, Social Support, Depression, and Life Satisfaction Among African American and White Female Caregivers of Elder Bedbound Patients

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_____ 1. THIS IS A TRAINING GRANT. EACH RESEARCH PROJECT INVOLVING HUMAN SUBJECTS PROPOSED BY TRAINEES MUST BE REVIEWED SEPARATELY BY THE INSTITUTIONAL REVIEW BOARD (IRB .

__X__ 2. THIS APPLICATION INCLUDES RESEARCH INVOLVING HUMAN SUBJECTS. THE IRB HAS REVIEWED AND APPROVED THIS APPLICATION ON 2-28-97 IN ACCORDANCE WITH UAB'S ASSURANCE APPROVED BY THE UNITED STATES PUBLIC HEALTH SERVICE. THE PROJECT WILL BE SUBJECT TO ANNUAL CONTINUING REVIEW AS PROVIDED IN THAT ASSURANCE.

__X__ THIS PROJECT RECEIVED EXPEDITED REVIEW.

_____ THIS PROJECT RECEIVED FULL BOARD REVIEW.

_____ 3. THIS APPLICATION MAY INCLUDE RESEARCH INVOLVING HUMAN SUBJECTS. REVIEW IS PENDING BY THE IRB AS PROVIDED BY UAB'S ASSURANCE. COMPLETION OF REVIEW WILL BE CERTIFIED BY ISSUANCE OF ANOTHER FORM 4 AS SOON AS POSSIBLE.

_____ 4. EXEMPTION IS APPROVED BASED ON EXEMPTION CATEGORY NUMBER(S) __________.

DATE: 2-28-97

Marguerite Kinney
MARGUERITE KINNEY, DNSc
VICE CHAIR OF THE
INSTITUTIONAL REVIEW BOARD

The University of Alabama at Birmingham
117CR Administration Building • 701 South 20th Street
Birmingham, Alabama 35294-0111 • (205) 934-3789 • FAX (205) 975-5977

APPENDIX D

LETTER TO CAREGIVERS

February 21, 1996

I am an instructor at the School of Nursing at USM. I am also working on my doctoral degree in nursing at the University of Alabama at Birmingham. Part of the requirements to finish this degree is to do a research project. I am asking for your help.

I am doing a study on female caregivers who take care of patients (either husbands, mothers siblings, children, or friends) that are bedbound - or stay in bed the majority of the day. I am measuring the amount of care you do, how confident you feel in the care, how much help you get, how you cope, and your depression and life satisfaction at this time. I am also comparing two groups of African American and White American caregivers.

Your home health agency has agreed to help me in my study. We feel you will be able to contribute to the importance of the study. Please be assured, whether you are in my study or not, it will not affect the type of care you are receiving through the home health agency. If you do agree to be in the study, any information you give me will be between you and me.

If you are willing to help me in my study, please fill in your name and phone number below. The nurse will return this letter to me. When I receive this letter back, I will call you for a time to come and talk with you for one hour.

Thank you very much for your participation in the study.

Sincerely,

Norma Cuellar R.N.
Doctoral Candidate University of Alabama at Birmingham

NAME____
ADDRESS____
____
PHONE NUMBER______________________________________

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA AT BIRMINGHAM
DISSERTATION APPROVAL FORM
DOCTOR OF SCIENCE IN NURSING

Name of Candidate Norma G. Cuellar

Major Subject Adult Health Nursing

Title of Dissertation A Comparison of Caregiving Self-Efficacy, Stress, Social Support, Coping, Depression, and Life Satisfaction Among African American and White American Female Caregivers of Elder Bedbound Patients

I certify that I have read this document and examined the student regarding its content. In my opinion, this dissertation conforms to acceptable standards of scholarly presentation and is adequate in scope and quality, and the attainments of this students are such that she may be recommended for the degree of Doctor of Science in Nursing.

Dissertation Committee:

Name	**Signature**
Dr. Linda Davis, **Chair**	Linda L Davis
Dr. Michael Weaver	Michael Weaver
Dr. Joan Turner	Joan Turner
Dr. Louis Burgio	
Dr. David Macrina	

Director of Graduate Program Carol Dashiff

Dean, UAB Graduate School Joan F Lorden

Date 1/8/98