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MALE CAREGIVERS WITH CANCER DIAGNOSED PARTNERS: AN EXPLORATORY STUDY

by

Frankie Carroll Browning

A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
1996

Approved by

Dissertation Advisor

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February 16, 1996
Date of Acceptance by Committee

February 16, 1996
Date of Final Oral Examination

BROWNING, FRANKIE CARROLL, Ph.D., Male Caregivers with Cancer Diagnosed Partners: An Exploratory Study. (1996) Directed by Dr. J. Scott Hinkle. 160 pp.

This study was an examination of the relationship between factors of emotional and psychological vulnerability, psychosocial and demographic variables, and barriers to caregiving thought to be related to the coping process of male caregivers. To investigate this relationship, 74 male caregivers of cancer diagnosed females volunteered to complete a demographic questionnaire and eight diagnostic instruments. These volunteers were recruited through the auspices of the Cancer Patient Support Program of the Bowman Gray School of Medicine in Winston-Salem, North Carolina. Variables measured by the diagnostic instruments included level of self-esteem, locus of control, sex-role orientation, quality of premorbid martial relationship and quality of marital relationship since the diagnosis of cancer, level of depressive mood, barriers to caregiving, and coping strategies used by each subject. The participants in the study had known of their wives's cancer diagnosis for at least 10 days.

The participants were classified into one of two groups according to their reported coping strategies, that is, approach (problem-focused) or avoidance (emotion-focused). The two groups were then investigated and compared by descriptive and inferential statistical methods in relation to the variables of self-esteem, locus of control, sex-role orientation, marital relationship, socioeconomic status, religious activity, level of depressive mood, educational level, age, appraisal of the cancer experience, barriers to caregiving, and degree of androgyny.

Results of the study indicated the factors of emotional and psychological vulnerability along with psychosocial and demographic variables were not significantly related to the selection and use of coping strategies by male caregivers. The results of the primary hypotheses in the study were not in congruence with previous male caregiver research findings. Additional analysis of the sample data revealed a significant negative impact of the cancer experience upon the marital relationship since the cancer diagnosis. The general stress associated with the male caregiver role was identified as the chief barrier to the caregiving process.

ACKNOWLEDGEMENTS

Many individuals have provided encouragement, support, and assistance throughout the process of conducting this study and writing this dissertation. My advisory committee deserves my gratitude and respect: Dr. J. Scott Hinkle, for his hours of review and guidance in the writing process; Dr. Nicholas Vacc, for his technical expertise in research; Dr. Sarah Shoffner, for her positive attitude and interest in this project; and Dr. Lloyd Bond, for his statistical guidance and research design. A hugh debt of gratitude is owed to Dr. Richard McQuellon and his staff at the Cancer Patient Support Program of the Bowman Gray School of Medicine in Winston-Salem, North Carolina. Without the assistance of Dr. McQuellon and his staff, this project would not have been possible. Mr. Pat Harman and Mrs. Virginia S. Moore deserve my appreciation for their technical expertise and patience. My chief ally in completing this project has been my wife, Brenda, who has made the whole adventure worthwhile. Finally, my sincere thanks goes out to all of the male caregivers and their wives who volunteered to be a part of this study. It is my prayer that this study will help stimulate more research and support for the pressing needs of male caregivers facing the challenge of cancer.

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CHAPTER ONE

INTRODUCTION

Cancer is a word that evokes one of the most instinctual behaviors in people. For many it means "fight" or "flight." Despite technological advances in the medical field, cancer remains one of the most dreaded diseases of modern man. Published reports (American Cancer Society, 1991, 1993) indicate that it kills more children ages 1 to 14 in the United States than any other disease and occurs more frequently with advancing age. In the 1980's, there were over 4.5 million cancer deaths, almost 9 million new cancer cases, and approximately 12 million people undergoing medical treatment for cancer. Eighty-five million Americans, for a ratio of one to three, will eventually have cancer if present incidence rates continue. Three out of four families will directly or indirectly experience cancer. In 1993 alone, approximately 526,000 Americans died from cancer (i.e., about 1,400 per day).

In 1930, the national cancer death rate per population of 100,000 was 143. In 1940, the cancer death rate per population of 100,000 was 152. By 1970, the age-adjusted national death rate due to cancer had increased to 163. The death rate due to cancer per population of 100,000 has been 171 since 1989 (American Cancer Society, 1993). A major cause of these increases has been attributed to cancer of the lung.

As the above cited statistics suggest, cancer is a disease that has a major impact upon the family as well as the patient. How the patient and each family member responds and adapts with this ominous threat to family unity and survival may take on dimensions ranging from the heroic to the tragic. From a family systems perspective, the entire family system is affected by the cancer illness of a family member (Jassak, 1992). Corbin and Strauss (1988) have contended that the adaptations made by each family member directly affect the day-to-day management of an illness. Northouse (1984) also alluded to the powerful influence families have on adjustment to cancer; patients who receive minimal family support experience more difficulty adjusting to their medical plight.

The perception of cancer is changing. Once perceived as a definite and swift sentence of death, cancer is now viewed as a chronic illness. In 1993, there were over 8 million American survivors with a history of cancer, 5 million with a diagnosis of five or more years (American Cancer Society, 1993). Advances in technology and treatment have drastically altered the cancer experience. A featured article in the February 4, 1991, edition of the New York Times highlighted this change with the title "Changing View of Cancer: Something to Live With" (Lewin, 1991). The examples given in this article demonstrate that cancer is a disease that patients and families must learn to live with over extended periods of time.

Advances in technology and treatment resulting in longevity of the cancer experience are not without a price to the family. As the experience progresses, the family is under increasing psychosocial strain. Adaptation or coping is the key to family survival. Holland (1981) stated that patients who are psychologically stable and have a good support network and minimal illness have few psychological problems; consequently they cope well. Persons with poor psychosocial resources may have difficulties resulting in the need for help, even if the disease severity and disability are not great. Furthermore, in the presence of severe illness, even psychologically sound individuals may find coping and adaptation to be difficult and may require help (i.e., counseling). Holland also alluded to the likelihood of significant psychological disturbance when a person has poor psychosocial resources and encounters cancer face-to-face. Such persons, according to Holland, need to be identified early and provided with support to reduce the risk of psychological decompensation. The integration of good psychological care within the context of total care can make the difference in the subjective experience of the patient and his/her cooperation with treatment (Holland).

From a family systems perspective, Holland's comments appear to be applicable to the stability (coping capacity) of the family as well. Lewis, Ellison, and Woods (1985) have reported multiple issues affecting the family of patients with cancer. The major issues they identified were emotional strain, physical demands of care, uncertainty, fear, altered roles and life-styles, financial considerations, comfort for the patient, perceived inadequacy of services, philosophic and spiritual concerns, sexuality, and incongruent needs and perceptions.

Jassak (1992) has indicated that medical care, especially nursing, had long been interested in the family's role in patient care. Clinically, however, she reported that a good relationship with only one family member generally develops. That person, she notes, becomes the "messenger," and perhaps the caregiver, for the rest of the family. In many cases, an adult patient's spouse would initially be the messenger, and perhaps the caregiver, for the rest of the family. For example, in the case where the diagnosed cancer patient is a female, the husband would be called upon to assume the role of messenger/caregiver. This is obviously a difficult role to assume.

Some men confront this task with strength and lead their families through the trauma regardless of the severity. Other men find the assumption of such a role to be overwhelmingly difficult and seemingly beyond their capacity to adapt. Their emotional and psychological vulnerability and inability to cope in such a situation may result in behaviors that exacerbate an already stressful circumstance. Such strategies or behavior patterns to assist in the reduction of anxiety have the potential to compound troubled feelings and decrease the ability to express emotional distress and anxiety. Learned patterns of behavior (e.g., males must never express feelings, insecurity, or fear) may add to the difficulties of the male caregiver. In some cases, psychological and emotional distress of the cancer experience can result in the biopsychosocial degradation of the overall functioning of the male. The detrimental impact of cancer on the family system in such a case may be exponentially increased.

Purpose and Need for the Study

The purpose of this study is to explore the relationship between emotional and psychological vulnerability and the coping processes of male caregivers with cancer diagnosed partners. Weisman and Worden (1976) and Holland (1982), as well as other researchers have written extensively about the vulnerability and coping capacity of the patient. Oberst and Scott (1988) examined the differences in distress between cancer patients and their spouses. A number of researchers have investigated and written about the key components of the capacity to cope with traumatic illness (Ersek, 1992; Larson, 1992; Steeves, 1992; Weisman, 1984). Similarly, there is a growing body of literature addressing family member involvement in the cancer experience (Giacquinta, 1977; Lewandowski, 1988; Lovejoy, 1986; Northouse, 1984; Thorne, 1985; Tringali, 1986). These studies, however, have not addressed why some males seemingly cope well with the trauma of a spouse with cancer, whereas other males do not. This study investigated the relationship between a male caregiver's emotional and psychological vulnerability and selected coping strategies. It also sought insight into those barriers to caregiving that are of concern to male caregivers experiencing cancer. Finally, this study sought to provide additional insight into the psychosocial and demographic variables which relate to the male caregiver coping process. This study may benefit the profession of counseling by adding knowledge to the growing field of male caregiver studies. Specifically, it may offer understanding into the ways comprehensive cancer centers in the United States may better serve the emotional, psychological, and social needs of males with cancer diagnosed partners. This understanding may provide a basis for programs that will benefit not only the males involved, but other family members and the patients themselves.

Male partners who can cope well with the adversity of a cancer diagnosed spouse are vital to the successful management process of the cancer experience. The ability of the husband to recognize his vulnerabilities and customary coping processes is of major importance for the health of the patient and family (Germino, 1991; Holland, 1981; Lewandowski, 1988; Lewis, 1990; Northouse, 1984, 1988). Although there is a growing body of literature focusing on the relationship between the patient and the family, information concerning the specific impact and response of the husband in such a situation is needed (i.e., there may be factors that enhance or impede the coping process of the male caregiver). For example, how does self-esteem, locus of control, sex-role orientation, quality of marital relationship, and level of depressive mood relate to the coping strategies a male caregiver may use? Do psychosocial and demographic factors impact the coping strategies of male caregivers (i.e., what is the impact of socioeconomic status, religious activity, education, degree of androgyny, and age upon the use and selection of coping strategies)? Are there specific barriers to the male caregiving process? Does a male caregiver's appraisal, that is cognitive evaluation of the cancer experience as a threat or challenge, affect his emotional and psychological condition? Northouse and Swain (1987) have highlighted these needs. They stressed the importance of health professionals directing more attention toward the adjustment of the patient's husband. The patient as well as the husband experience difficulty adjusting to the impact of illness and therefore <u>both</u> have a legitimate need for support and understanding (Northouse and Swain).

Definition of Terms

<u>Cancer</u>. Is a term applied to a large group of diseases (in excess of 100) characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled or checked, it results in death. Many cancers can be cured if detected and treated promptly. Many others can be prevented by lifestyle changes (American Cancer Society, 1993).

<u>Comprehensive cancer center</u>. A medical facility where cancer diagnosis and treatment is given to a patient. Treatment modalities may include surgery, radiation, chemotherapy, and immunotherapy, or a combination of these. Ancillary services such as physiotherapy, physical rehabilitation, social service,

counseling, and extended nursing also may be provided (Weisman and Worden, 1977).

Caregiver. One who behaviorally expresses commitment to the welfare of another. Such an individual gives care and support (i.e., physical, emotional, psychological, spiritual, and relational) as an extension of caring about another person. Care and caregiving are intrinsic to any close relationship and are present in all relationships where people attempt to protect or enhance each other's well-being (Pearlin, Mullan, Semple, and Skaff, 1990). In this study, caregivers are males married to female partners with a cancer diagnosis.

Barriers to caregiving. Factors which may or may not impede the caregiving process, such as physical and emotional health, community and family support, and gender-related factors. Items included under these factors are as follows: physical and emotional health (caregiver's general health, physical health of the care recipient, mental health of the care recipient; the stress of caregiving, the availability of help from others, and the personality of the care recipient); community and family support (requirements of the job, family obligations, quality of past relationships, distance lived from care recipient, sex of care recipient, and availability of community services); gender-related issues (social life of caregiver, caregiver opinion as to appropriate sex-role behavior, opinion of others as to appropriate sex-role behavior, and family tradition of helping others).

<u>Vulnerability</u>. An implicit measurement of difficulty in coping, specifically, an immediate, distressing mood (Weisman, 1979). Coping and vulnerability have a reciprocal relationship in that vulnerability is an index of distress, while coping is what one does about a problem. The distress may be short-lived or lengthy, ranging from feelings of helplessness to resentment, from anxiety to loneliness, with intermediate changes in mood, thought, and behavior (Weisman, 1976). Emotional and psychological vulnerability is determined by a deficit or perceived deficit in resources and by the relationship between an individual's pattern of commitments and his or her resources to ward off threats to those commitments (Lazarus and Folkman, 1984). A deficit or perceived deficit in resources to ward off a threat to commitments may include factors of vulnerability in the areas of self-esteem, locus of control, sex-role orientation, quality of interpersonal relationships, and mood states.

<u>Emotional distress</u>. Personal, internal idiosyncratic feelings that are often difficult to adequately express verbally. The concept of vulnerability may be utilized to designate types, degrees, and fluctuations of distress over time. Examples of emotional distress signals include feelings of hopelessness, turmoil, and worthlessness (Weisman, 1979).

<u>Coping</u>. "Constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus and Folkman, 1984, p. 141).

Coping strategies. General types of motivated behavior undertaken in response to a threatening situation, obstacle, or problem (Weisman and Worden, 1977). Coping strategies are generally divided into two categories: problem-focused or approach strategies, which emphasize problem resolution, and emotion-focused or avoidance coping strategies, which emphasize regulation of emotional response (Lazarus and Folkman, 1984).

Appraisal. A cognitive evaluative process that determines why and to what extent a particular transaction (e.g., threat or challenge) or series of transactions (e.g., experiences) between a person and his environment may be stressful (Lazarus and Folkman, 1984).

Self-esteem. The value, worth, and respect given to one's individual person.

Locus of control. A general belief about control concerning the extent to which an individual assumes he or she can control events and/or outcomes of importance. According to Rotter (1966), a continuum of control exists. At one end of the continuum is internal locus of control which refers to the belief that events are contingent upon one's own behavior while the opposite end of the continuum, that is, external locus of control refers to the belief that events and outcomes are contingent upon fate, luck, or powerful others (Lazarus and Folkman, 1984).

Sex-role orientation. Gender-role bifurcation whereby masculinity becomes associated with instrumental, agenetic, cognitive emphasis on task accomplishment. Femininity becomes associated with expressive, communal, and affective concern with the well-being of others. Males come to know the world in terms of separation, whereas females come to know the world in more interpersonal terms (Belenky, Clinchy, Goldberger, and Tarule, 1986).

Androgyny. The measure of the difference between one's endorsement of masculine and feminine personality characteristics (e.g., forceful versus yielding) (Bem, 1974).

Quality of premorbid marital relationship. The caregiver's recalled perception of the level of communication, involvement, and affective expression with their partner prior to the onset of the cancer experience.

Socioeconomic status. Classification of individuals into categories based upon their occupation, income, and level of education (e.g., upper-middle class) (Lin, 1976).

Partners. Married female companions of the males involved in this study who have been medically diagnosed with cancer.

Statement of the Problem

The study will investigate the relationship between emotional and psychological vulnerability and the coping processes of male caregivers with cancer diagnosed partners. Specifically, the following research questions will be investigated:

1. What is the relationship between approach (problem-focused) and avoidance (emotion-focused) coping strategies and factors of vulnerability in male caregivers (defined as self-esteem, locus of control,

sex-role orientation, quality of premorbid marital relationship, and level of depressive mood)?

2. What is the relationship between approach (problem-focused) and avoidance (emotion-focused) coping strategies and sociodemographic factors in male caregivers (defined as socioeconomic status, religious activity, age, and education)?
3. Is there a relationship between the appraisal of the cancer experience (i.e., threat or challenge) and level of depressive mood among male caregivers?
4. Are the following variables predictors of level of depressive mood among male caregivers: level of self-esteem, locus of control, and quality of premorbid marital relationship?
5. Is there a relationship between sex-role orientation (affective or instrumental) and barriers to male caregiving?
6. Is there a relationship between the degree of androgyny among male caregivers and their age?

Organization of the Study

The study is presented in five chapters. Chapter One is an Introduction to the cancer experience and its impact upon the patient and the family. It provides an overview of the impact of cancer, especially as it relates to multiple family issues that may arise over the course of a cancer episode. The importance of the ability or lack of ability of the male to effectively cope and manage the family in the role of messenger/caregiver is noted. This study examines the presence of a relationship between a male caregiver's emotional and psychological vulnerability and coping processes. The purpose and need for the study, definition of terms, and statement of the problem are included.

Chapter Two, Review of Related Literature, is comprised of two sections: male caregiving and coping. The caregiver literature review briefly describes the male caregiver learning process in the United States. It examines factors of emotional and psychological vulnerability (e.g., level of self-esteem, locus of control, sex-role orientation, quality of marital relationship, and level of depressive mood) that may inhibit or promote male caregiving. It also highlights possible barriers to the male caregiving process, such as physical and emotional health, availability and use of community and family support, and gender-related issues. The review of the literature related to coping includes an examination of the components of the coping process and their possible relationship to factors of vulnerability and barriers to male caregiving.

Chapter Three discusses the methodology used in the study and includes the research hypotheses, participants in the study, information regarding instruments, research procedures, and methods of data analysis.

Chapter Four describes the results of the data analysis. A discussion of the analysis and results parallel the research hypothesis.

Chapter Five includes a summary of the research, an examination of limitations of the study, conclusions drawn from the study, recommendations for further research, and implications for the helping professions, cancer affiliated families, and male caregivers.

CHAPTER TWO

LITERATURE REVIEW

This review of literature provides an overview of research conducted in the area of male caregiving and coping. With over 8 million American survivors of cancer in 1993 (American Cancer Society, 1993), the number of male caregivers coping with the daily trauma and stress of cancer is considerable. Counseling and health professionals need to direct more attention toward the adjustment of the husbands of cancer patients. There is a legitimate need among husbands for support and understanding (Northouse and Swain, 1987). How well these men manage and cope is important to themselves, their wives's and families, and society as a whole.

Male Caregiving

Herron (1992) has stated that:

> It is my belief that men today are caught between two images of masculinity. The first is John Wayne. The Duke is strong, cool, and self-sufficient. He expresses how he feels with action. The second image is what I call the ghost of Edmund Muskie. Real men are supposed to be sensitive? We still have a long way to go to bring together strength and compassion (1992).

Herron (1992) also stated that the identity of the modern male is bound up in tasks ranging from making the little league team to owning his own business. The conquest of the male in the external, objective world provides the basis for an unconquerable spirit and a sense of invincibility. Male prowess, however, often bogs down in the sand when confronted with personal or family issues. Herron noted that males often are much better at intimidation than intimacy. When it comes to conflict and closeness, some males tend to withdraw. There is an air of masculine uncertainty and vulnerability that often is hidden until a crisis arises.

Staudacher (1991) reported five coping styles she has observed in dealing with masculine grief. They are to remain silent, to engage in solitary mourning, to take physical or legal action, to become immersed in activity, and to exhibit addictive behavior. These styles in coping with crisis and loss are supported and promoted by cultural expectations. Staudacher indicated that society expects men to be in control, rational, analytical, logical, and assertive. Additionally, men must be able to bear pain, be courageous, and be problem-solvers. They are not expected to lose control of self or a situation, openly express feelings, or admit to having a need for love, affection, and support. A significant amount of physical, psychological, and emotional energy may be invested in not being afraid, emotional, or vulnerable (Staudacher).

Why are some adult males so fearful of exposing personal vulnerability? Pleck and Brannon (1978) noted that researchers have begun to systematically study men and the powerful social expectations they face by virtue of being males. This includes prevalent cultural beliefs about personality characteristics that males should have and behaviors they should perform together with both subtle and overt encouragements to conform to such beliefs. The prevalent cultural beliefs about personality characteristics and expected behaviors of males have been previously alluded to by Staudacher (1991) and others (e.g., Arkin and Dobrofsky, 1978; Berger, Berger, and Kellner, 1974; Filene, 1975). Hantover (1978) described masculinity as a cultural construct. He stated that men need the opportunity to perform normatively appropriate male behaviors. American masculinity, according to Hantover, is continually affirmed through ongoing action. What acts a man performs and how well he performs them "make a male, a man" (Hantover, p. 184).

What are the sources of subtle and overt encouragements to conform to the cultural and traditional beliefs about malehood? There are a multitude of sources in the American society. Some of the more prominent sources of influence include Boy Scouts (Hantover, 1978), sports (Hershenson, Power, and Seligman, 1989), work (Fitzgerald and Cherpas, 1985), the media (Lewis, 1986), and the military (Arkin and Dobrofsky, 1978). Hantover (1978) postulated that scouting provided men an opportunity to counteract perceived feminizing forces and to act according to the traditional masculine script. Sports in America from pee wee soccer to professional automobile racing glorifies the attributes of the stoic traditional American male (Hershensen et al.). The American work environment maintains and promotes traditional masculine beliefs concerning appropriate behaviors and masculine career attitudes and actions (Fitzgerald and Cherpas, 1985). The media, according to Lewis (1986), has produced and promulgated a mixed and often confusing and nonempirical message about appropriate male behaviors. Arkin and Dobrofsky (1978) contended that military indoctrination has been a powerful adult socialization tool and is crucial to understanding adult male role definitions since a considerable proportion of the male population have undergone the training experience of the military. Many of the values and norms of traditional American masculinity have been structured and maintained via the military experience (Arkin and Dobrofsky).

If males in the American society are continuing to receive supporting messages from many sources concerning the "appropriateness" of traditional male roles and behaviors then why do they often consciously and/or unconsciously feel vulnerable? Lee (1991), past chairperson for the American Counseling Association's Special Committee on Men, states that men are slaves to societal standards. When a young boy skins his knee, his mother tells him not to cry. From that moment on, he knows to keep his vulnerable side under control. Sadness, tenderness, and vulnerability are inappropriate emotions (1991). Herron (1992) indicated, "men today are caught between two images of masculinity" (p. 1). William Goode (1982) probably put it the most succinctly:

> How many men do we actually know who carry out these social prescriptions (i.e., how many are emotionally anesthetized, aggressive, physically tough and daring, unwilling or unable to give nurturance to a child?... do they lose their membership cards in the male fraternity if they fail in these respects? If socialization and social pressures are so all-powerful, where are all the John Wayne types in our society? (p. 135).

Goode's (1982) implied point is that John Wayne's masculine persona was true only in the movies. Kelly and Hall (1992) have asserted that some men can still be accurately described by traditional stereotypes. But most men, they contended, no longer fit traditional stereotypes in their thinking, feeling, and behaving. At some time during the adult male developmental process, these men have undergone a transformation pertaining to their definition of maleness. As these males undergo their transformation, they may reevaluate, discard, or integrate new and old gender concepts related to masculinity and femininity. Restrictive personal meanings of masculinity and femininity often have resulted from socialized views that are sexist and are reinforced by sexist institutional structures. Failure to refine and integrate personal notions of gender roles may inhibit personal development (O'Neil and Egan, 1992). These transitions may occur due to physical maturation, specific life events, or gender role conflicts (O'Neil, Helms, Gable, David, and Wrightsman, 1986).

Some males may initiate gender role transitions only when a crisis occurs (O'Neil et al., 1986). During such a crisis new perspectives about the roles related to masculinity and femininity may evolve (O'Neil and Egan, 1992). Such a crisis, that may or may not trigger a gender role transition, is the illness of one's spouse. Holmes and Rahe (1967) ranked the illness of family member in the top 25% of social adjustment stressors regardless of the gender. Such a crisis, especially if the illness is chronic and/or life threatening, may require an individual to assume the role of caregiver. The stress of this new role with its accompanying responsibilities and expectations can be overwhelming.

The male, directly or indirectly, learns to be a caretaker, but not a caregiver. The caregiver role expectations and responsibilities requiring deeper levels of empathy and understanding can easily surpass the emotional, psychological, and spiritual resources of the traditionally socialized male. In such a case John Wayne, the Marlboro man, and James Bond may be left flat-footed and vulnerable. From a family systems perspective, the entire system may be at risk due to the male's inability to adequately adapt to a caregiver role (Minuchin, 1974).

Traditionally, the role of caregiver has been assumed by the female (Brody, 1981; Cantor, 1983; Johnson, 1983). Generally, only in the absence of an available female, has the male assumed the role of caregiver (Horowitz, 1985a). Kaye and Applegate (1990a) have indicated that the absence of the female caregiver may become the norm rather than the exception in the late twentieth-century. They have pointed out that in some settings nearly a third of the elder caregivers are males. With smaller families (i.e., fewer siblings and/or no children) the male spouse of a cancer diagnosed patient may have no options other than to assume the caregiver role.

Factors of Vulnerability and Barriers to Male Caregiving

The emotional, physical, and psychological stress of assuming the caregiver role is significant and may put the entire family system at risk (Brody, 1989). Relationships between the caregiver, care recipient, and other members of the family are often strained and disrupted (Noelker and Wallace, 1985). Emotional stresses associated with caregiving are pervasive and difficult (Horowitz, 1985b). Numerous studies have shown that caregivers report poor health, high use of psychotropic drugs, chronic fatigue, and weight change (George and Gwyther, 1986; Rabins, Mace, and Lucus, 1982).

In light of these reported difficulties, it appears vital that the male caregiver adapt and cope in a functional manner if the benefits of caregiving are to be realized. These benefits include new levels of love, affection, reciprocity, respect, and commitment (Graham, 1983; Motenko, 1988). Vinick

(1984) has noted that for some caregivers, nurturing a loved one provides an opportunity for anticipatory grieving that may help with the eventual loss of the care recipient. For male spouses, the act of caregiving can assist the marital relationship in issues of dependency and intimacy for which socialization offers few models (Kaye and Applegate, 1990a).

Researchers indicate that there are factors and barriers which may either enhance or impede the assumption of the role of male caregiver. The factors include the following: self-esteem (Namir, Wolcott, Fawzy, and Alumbaugh, 1987; Nicholson and Long, 1990; Ormel and Schaufeli, 1991); locus of control (Lester and Pitts, 1990; Ormel and Schaufeli, 1991; Parkes, 1984); sex-role orientation (Kaye and Applegate, 1990b; O'Neil, 1981); quality of premorbid marital relationship (Kramer, 1992; Williamson and Schulz, 1990); and level of depressive mood (Cohen and Eisdorfer, 1988; Northouse and Swain, 1987). Possible barriers to male caregiving include physical and emotional health, availability and use of community and family support, and gender-related issues (Kaye and Applegate, 1990a). An examination of differences in these factors and the barriers to male caregiving may help explain why some males seemingly cope well with the role of caregiver whereas other males do not.

Self-Esteem

When faced with the new role of caregiver, the male in question is forced to decide if he will accept or reject the caregiver role and responsibilities (i.e., expressing and extending support for the welfare of the care recipient beyond his customary level of expression and extension). To avoid the issue is in fact a decision to reject the role. Numerous studies have linked the decision to approach or avoid a role with self-esteem (Namir, Wolcott, Fawzy, and Alumbaugh, 1987; Nicholson and Long, 1990; Ormel and Schaufeli, 1991). Namir et al. revealed that active-behavioral coping was related to lower total mood disturbance and higher self-esteem whereas avoidance coping was inversely related to self-esteem and positively correlated with depression. Even if the decision to approach an issue is made, a relationship between one's self-esteem and coping capacity may continue. Pearlin, Lieberman, Menaghan, and Mullan (1981) found that certain life events indirectly exert their deleterious effect on well-being through adverse influence on self-esteem. These events, such as a cancer diagnosed spouse, may involve the "diminishment of self " (Pearlin et al., p. 340). Pearlin et al. have reported that "persistent role strains can confront people with dogged evidence of their own failures---or lack of success---and with inescapable proof of their inability to alter the unwanted circumstances of their lives" (p. 340).

Skaff and Pearlin (1992) have postulated that when self-esteem is under siege by the strain of caregiving, a loss of self via role engulfment may occur. Gregory, Peters, and Cameron (1990) have suggested, however, that caregiving may enhance a caregiver's self-esteem, strengthen interpersonal relationships, and reinforce one's purpose for life. These studies reflect that an association exists among caregiver coping processes, self-esteem, and psychological and emotional vulnerability, including locus of control.

Locus of Control

A second factor that has been linked to male caregiver coping processes is locus of control. In their study, Ormel and Schaufeli (1991) reported high psychological distress symptom levels were strongly related to low self-esteem and external locus of control. Relatedly, Parkes (1984) found subjects utilizing an internal locus of control reported high levels of direct (approach) coping and low-levels of psychological and emotional distress. An inverse relationship between external locus of control, direct (approach) coping, and psychological and emotional distress was found. Compass, Barnez, Malcarne, and Worsham (1991) have noted that beliefs about the controllability of stressful events can influence the degree to which one attempts to master or change stressful circumstances, as opposed to trying to tolerate or adjust to adverse circumstances. Such control beliefs (internal and external) about oneself, one's circumstances, or one's life in general can influence whether or not the caregiver role is appraised as a challenge or threat. High levels of depressive mood have been strongly associated with a specific type of locus of control, specifically, an external locus of control (Brackney and Westman, 1992; Lester and Pitts, 1990). Lesko (1987) reported an association between external locus of control, avoidance coping, and depression. He noted that control beliefs were strong predictors of both approach and avoidance coping strategies. From these studies, it appears that locus of control, as well as other factors (e.g., sex-role orientation), can impact how readily a male might assume the new role of caregiver.

Sex-role Orientation

Another factor that appears to be associated with a male caregiver's emotional and psychological vulnerability and coping process is his sex-role orientation. Kaye and Applegate's (1990b) study of male elder caregivers found that most of their subjects reflected considerable androgyny. Their subjects described themselves to a greater degree in affective terms than in instrumental terms. Affective self-definitions were correlated with lower levels of caregiving burden, higher frequency of initiating affection with care recipients, and a greater sense of competence. Male caregivers in their study described their most salient task as providing social support, especially companionship and emotional sustenance (Kaye and Applegate). Male caregivers who described themselves in instrumental terms experienced a variety of barriers to carrying out caregiving tasks. Such barriers included physical/emotional health issues, community/family support problems, and/or gender-related items (Kaye and Applegate). Relatedly, O'Neil (1981) has pointed out that certain myths of the masculine mystique and value system. For example, vulnerabilities, feelings, and emotions in men are signs of femininity and are to be avoided. Such myths contribute to gender role conflict and strain. In general, caregiving appears to be easier for men who define themselves in expressive terms. Androgyny promotes greater psychological adaptability and flexibility (Kaye and Applegate). In addition to androgyny, the quality of interpersonal relationships may contribute to one's level of emotional and psychological vulnerability.

Quality of Premorbid Marital Relationship

The quality of the marital relationship between a caregiver and care recipient before the onset of a traumatic disease has been studied minimally (Biegel, Sales, and Schulz, 1991). A rationale for examining this factor was provided by Williamson and Schulz (1990) in their study of Alzheimer's disease caregivers:

> Although we realized that this measure was subject to recall biases inherent in all retrospective measures, we nevertheless felt that asking caregivers about their past interactions with the patient was less subject to idealized response and confounding with current stress than direct questions about how much affection they felt toward the patient after onset of Alzheimer's disease (p. 502).

The recall of the past quality of the relationship may not be the most accurate, but the important factor is the perception of the past relationship (Kramer, 1992). From their study, Williamson and Schulz (1990) found that caregivers reporting a close relationship with their spouse prior to the onset of Alzheimer's disease felt less burden and stress than those whose relationship had not been close. In a longitudinal study, Zarit, Todd, and Zarit (1986) found that the quality of past relationship was negatively associated with caregiver burden. Cantor (1983) reported that caregivers perceive less stress when there is a strong affectional bond in the relationship. Relatedly, Kaye and Applegate (1990a) have indicated that higher levels of caregiver-recipient intimacy and affiliation are associated with greater overall satisfaction with life for the caregiver. Kramer (1992) found that the quality of prior relationship was associated with the level of perceived burden and depression for the caregiver. Her study revealed that caregivers who reported lower relationship quality prior to the onset of Alzheimer's disease reported significantly higher levels of burden and depression, and significantly lower quality of life, affect balance, and social well-being. Finally, Morris, Morris, and Britton (1988) found an association between lower levels of prior and current intimacy and higher levels of perceived strain and depression. The impact of the marital relationship upon the vulnerability and coping processes of the male caregiver is important, as are vegetative symptoms.

Depressive Mood

Depressive mood is the most frequently studied psychiatric symptom among caregivers (Biegal, Sales, and Schulz, 1991). It is defined by a loss of interest or pleasure in all, or almost all, activities for a period of at least two weeks. Associated symptoms include appetite disturbance, change in weight, sleep disturbance, psychomotor agitation or retardation, decreased energy, feelings of worthlessness or excessive or inappropriate guilt, difficulty thinking or concentrating, and recurrent thoughts of death or suicidal ideation (American Psychiatric Association, 1994). Females appear to be more at risk for depressive mood experiencing a four to nine percent point prevalence with a 20 to 26 percent lifetime risk. Males experience a three percent point prevalence with an eight to 12 percent lifetime risk (Boyd and Weissman, 1981).

Depressive mood has been reported by several investigators as a negative effect of caregiving. Cohen and Eisdorfer (1988) reported that 55% of their sample of spouse caregivers of patients with Alzheimer's disease experienced clinical depression. According to two studies, 45% of caregivers of dementia patients exhibit depressive mood symptoms (Fiore, Becker, and Coppel, 1983; Haley, Levine, Brown, Berry, and Hughes, 1987). Relatedly, in a two year longitudinal study of depression among Alzheimer's caregivers, Shulz and Williamson (1991) reported high levels of depressive symptomatology among caregivers. Female subjects in their study reported high, stable rates of depressive symptomatology throughout the two years, whereas male caregivers exhibited significant increases in depression over time. A study by Northouse and Swain (1987) revealed levels of distress, including depression, hostility, somatic complaints, significantly higher for female breast cancer patients and their husbands than for the normal population. Haley et al. reported that caregivers of dementia patients were significantly more depressed than a non-caregiver comparison group. Pruchno and Resch (1989) studied 262 spouse caregivers of patients in order to evaluate the mental health outcomes. The caregivers in their study reported moderate depressive symptoms, as measured by the Center for Epidemiologic Studies-Depression Scale (CES-D). Other studies using CES-D found caregivers depression scores to range from 5.6 (Moritz, Kasl, and Berkman, 1989) to 28.9 (Stoller and Pugliesi, 1989) with a modal score of 17 out of a total of 60 (Biegel et al., 1991). (The usual cutoff score on the CES-D for being at high risk for clinical depression is 16 or over (Biegel et al.). These findings leave little doubt that level of depressive mood and caregiving are associated, however, other barriers to male caregiving also are important.

Barriers to Caregiving

Barriers to male caregiving beyond vulnerability factors have been identified. Bowers (1987) has indicated that one of the factors making the task so stressful is that it is added on to, and frequently competes with, the other day-to-day obligations of busy families. As many caregivers continue to work and face multiple demands from various familial and vocational roles, negative on-the-job and family consequences may result. Such consequences may include tardiness, absenteeism, using up vacation benefits, or missed career opportunities (Gibeau and Anastas, 1989). The intense dependency involved in spousal caregiving may produce a troublesome relationship paradox: the dependency that forges closer emotional ties may render day-to-day interactions less enjoyable (Horowitz and Shindelman, 1983). Feelings of guilt, anger, remorse, and sadness may intrude in the closest of relationships in uncharacteristic and uncomfortable ways (Kaye and Applegate, 1990a).

Kaye and Applegate (1990a) developed an index to measure the extent to which three salient factors may be barriers to male caregiving. Their index measured the factors of physical and emotional health, availability and use of community and family support, and gender-related issues. Emotional, physical, and psychological burdens associated with caregiving are numerous and may put the entire family at risk of physical and mental problems according to Brody (1989). George and Gwyther (1986) noted that caregivers have reported poor health, high use of psychotropic drugs, chronic fatigue, and numerous other ailments. Hoyert and Seltzer (1992) hypothesized that caregivers would have more limited participation in life activities and poorer well-being than non-caregivers. They found significant differences between the two groups, with caregivers having poorer health, less personal satisfaction, and more depression. Another finding of their study was that a longer duration of caregiving and co-residence put the caregiver at risk for more negative emotional and psychological outcomes. The accumulation of stress over the course of caregiving appears to have definitive physical, emotional, and psychological costs (Hoyert and Seltzer). Kaye and Applegate reported that male caregivers giving themselves higher ratings on affective traits reported fewer impediments to caregiving related to physical and emotional health factors. Just the opposite was true for male caregivers who described themselves in more instrumental terms. Such finding are congruent with previous research relating traditional masculine socialization (instrumental orientation) to health problems and shortened life expectancy (Harrison, 1978; Meinecke, 1981).

Researchers generally agree that family and community support reduces the impact of stress on well-being (Arling, 1987; Cohen and Syme, 1985; Krause, 1987; Turner, 1981). Motenko (1989) has noted that caregivers who continued to maintain social supports and continuity in their life patterns derived greater gratification and well-being from caregiving than those who experienced discontinuity in social supports. Relatedly, Rankin, Haut, and Keefover (1992) postulated that inaccessibility or avoidance of support from relatives and friends is associated with greater risk of depressive symptoms. Kaye and Applegate (1990a) reported an apparent association related to gender-related issues and the use of community and family support. Those male caregivers who described themselves in more instrumental terms (traditional masculine socialization) were more reluctant to use community and family support. The male caregivers who saw themselves as more affective in nature perhaps found it easier to express the dependency inherent in asking for community and family support (Kaye and Applegate).

Theoretical Framework of the Coping Process

The theoretical framework for this study borrows from the stress, coping, and adaptation schematization developed by Lazarus and his colleagues (Folkman and Lazarus, 1980; Lazarus, 1966; Lazarus and Folkman, 1984; Lazarus and Launier, 1978). The major components of the Lazarus (1984) schematization include person-environment resources, appraisal processes and coping strategies, and immediate and long-term effects. These components include such factors as values, beliefs, time constraints, social networks and support, perception of harm, primary and secondary appraisal and reappraisal, problem and emotion-focused coping, physiological changes, sense of well-being, and feelings. Those components in the current study are used to compartmentalize phenomenon and provide a structural foundation for investigative purposes. The current study will extrapolate from this schematization by investigating associated factors such as vulnerability (e.g., self-esteem, locus of control, sex-role orientation, quality of marital relationship, and level of depressive mood) and barriers to male caregiving (e.g., physical and emotional health, availability and use of community and family support, and gender-related issues). This investigative extrapolation is supported by a previous pilot study examining these variables (Browning, 1993).

Person-Environment Resources

The person-environment resources component views coping as a process that changes over time (Lazarus and Folkman, 1984). In the Folkman and Lazarus model, the way a person copes is influenced by his or her resources, which include health, energy, existential and self-beliefs, commitments and values, problem solving and social skills, social support and relationships, and material resources. There may be an abundance of resources to draw upon or there may be a dearth of resources. Weisman (1979) noted greater psychological vulnerability and distress among subjects where such personal and environmental resources were lacking. The concept of *vulnerability* has been widely used in the conceptualization and study of psychological stress and coping (Lazarus and Folkman, 1984; Murphy and Moriarty, 1976; Zubin and Spring, 1977). Weisman (1976) described the vulnerability of his cancer patient subjects as a faltering capacity to cope. He found an association between vulnerability and a host of psychosocial and demographic variables (e.g., low self-esteem, external locus of control, marital problems, depression, low socioeconomic status, infrequent church attendance, and inadequate social support). For Weisman (1979), the concept of vulnerability is a global measure intended to designate different types, degrees, and fluctuations of distress over time. Such emotional and psychological distress included depression, anxiety, fear, anger, loneliness, and so forth. The central core of vulnerability according to Weisman is a condition of helpless uncertainty. He named such a condition existential despair. The nucleus of existential despair is depression and powerlessness which he believed infiltrated almost every type of distress.

Lazarus and Folkman (1984) extended the understanding of personal vulnerability beyond an inadequacy of resources as alluded to by Weisman (1976, 1979). Inadequacy of resources is a necessary but insufficient condition for emotional and psychological vulnerability to exist (Lazarus and Folkman). A deficit in resources results in emotional and psychological vulnerability only when the deficit refers to something that matters. Emotional and psychological vulnerability is determined not just by a deficit in resources, but by the relationship between the individual's pattern of commitments and his or her resources to ward off threats to those commitments (Lazarus and Folkman). Vulnerability results when a potential threat is transformed into an active threat involving and putting at jeopardy something or someone of personal value. Research by Lazarus and others (e.g., Bergman and Magnusson, 1979; Lazarus and Folkman, Vogel, Raymond, and Lazarus, 1959) has indicated that the greater the strength of a commitment, the more vulnerable a person is to emotional and psychological stress. In this sense, vulnerability refers to a susceptibility to react to a broad class of events with emotional and psychological stress that is shaped by a range of person factors, including commitments, beliefs, and resources (Lazarus and Folkman). The current study extends the definition of vulnerability to include self-esteem, locus of control, sex-role orientation, quality of marital relationship, and level of depressive mood.

Appraisal Processes and Coping Strategies

"The judgment that a particular person-environment relationship is stressful hinges on the process of cognitive appraisal" (Long, 1987, p. 15). Appraisal is a critical and integral aspect of the coping paradigm put forth by Lazarus (Lazarus and Folkman, 1984). Selection of a coping response is presumed to follow from the kind of appraisal a person makes. Two types of cognitive appraisals of stressful encounters have been identified. When faced with a stressful encounter, a primary appraisal is initially made of its personal significance for well-being (DeLongis and O'Brien, 1990). This is the process of determining what is at stake in the situation and can be distinguished as the extent to which the encounter is appraised as stressful (e.g., when encounters are appraised as harm or loss, threat, or challenge) (Lazarus and Folkman). Next, a secondary appraisal is made as an individual evaluates his or her commitments, resources, and options for action. "The process of appraisal is thought to be ongoing throughout the stressful encounter, with the stressor repeatedly reappraised as more information is obtained" (DeLongis and O'Brien, p. 225).

Folkman and Lazarus (1980) examined the role of secondary appraisals. They found that situations appraised to be changeable or in which more information was needed generated higher levels of problem-focused coping. Situations that were appraised as having to be accepted or resigned to generated higher levels of emotion-focused coping. Haley, Levine, Brown, and Bartolucci (1987) found that measures of caregiver appraisal and coping responses were consistently related to caregiver outcomes of depression, self-rated health, and life satisfaction. In sum, appraisals and coping responses were significant predictors of caregiver outcome, even when severity of caregiving stressors were statistically controlled (Haley et al.).

Two primary functions in the coping process as described by Lazarus and Folkman (1984) are: problem resolution (problem-focused or approach coping) and regulating the emotional response to a stressor (emotion-focused or avoidance coping). The researchers explained that people facing a stressful situation generally use a combination of problem-focused coping, in which they take action to change a threatening or damaging relationship between themselves and their environment, and emotion-focused coping, in which they take steps to regulate the emotional distress produced by the person-environment relationship. Strategies of coping such as logical analysis, positive reappraisal, seeking guidance and support, and problem-solving are examples of problem-focused coping, while cognitive avoidance, acceptance or resignation, seeking alternative rewards, and emotional discharge are examples of emotion-focused coping (Moos, 1993). A description of each of these strategies is given in Table 1.

Table 1

Approach and Avoidance Coping Strategies

Strategy	Description
Approach (Problem-focused)	
1. Logical Analysis	Cognitive attempts to understand and prepare mentally for a stressor and its consequences.
2. Positive Reappraisal	Cognitive attempts to construe and restructure a problem in a positive way while still accepting the reality of the situation.
3. Seeking Guidance and Support	Behavioral attempts to seek information, guidance, or support.
4. Problem Solving	Behavioral attempts to take action to deal directly with the problem.
Avoidance (Emotion-focused)	
1. Cognitive Avoidance	Cognitive attempts to avoid thinking realistically about a problem.
2. Acceptance or Resignation	Cognitive attempts to react to a problem by accepting it.
3. Seeking Alternative Rewards	Behavioral attempts to get involved in substitute activities and create new sources of satisfaction.
4. Emotional Discharge	Behavioral attempts to reduce tension by expressing negative feelings.

The widespread utility of problem and emotion-focused functions is demonstrated in the empirical work of Folkman and Lazarus (1980). Numerous researchers have either directly or indirectly identified these two functions in their conceptualizations of the coping process (Billings and Moos, 1981; Moos, 1993; Murphy, 1974; Pearlin and Schooler, 1978). According to Davis (1985), such a conceptualization has the advantage of considering process rather than traits and avoids the problem of confounding coping with outcomes. This description of coping provides the most comprehensive conceptualization of coping to date, taking into account environmental, personal, and situational variables as factors that influence coping effectiveness and strategies (Ramsey, 1990).

Examination of the functions of coping are particularly important as they have been found to have various outcomes in the broader coping literature. For example, the coping literature suggests that problem-focused coping may promote well-being, while emotion-focused coping may engender depression and other negative outcomes (Billings and Moos, 1981, 1984; Pearlin and Schooler, 1978). Depression appears to be related to the coping strategies caregivers select. In examining coping and functioning among alcoholic patients and their spouses, Moos, Finney, and Gamble (1982) indicated that spouses who rely more on avoidance coping strategies report more alcohol consumption, depression, anxiety, health problems, and use of medications. Spouses who rely less on avoidance coping and who had partners that continued to drink heavily were doing as well as spouses who relied more on avoidance coping and who had partners abstaining or engaging in nonproblem drinking. In a related study, Moos, Finney, and Cronkite (1990) noted that spouses of alcoholic patients who relied more heavily on avoidance coping at a two-year follow-up were more depressed at 10 years. Moos and Billings (1982) concluded that more reliance on avoidance coping among patients and their spouses was related to more anxiety, depression, and emotional problems among their children. In a number of his studies, Moos and his colleagues (Billings and Moos, 1985; Swindle, Cronkite, and Moos, 1989) found that a higher proportion of problem-focused coping was associated with less depression among both patients and spouses. The association between coping strategies and depression appears to be evident in many situations.

Lazarus and Folkman (1984) have suggested that the situation specific domain will influence the type of coping strategies available to individuals. The caregiving role is a highly interpersonal, specific domain. The quality of the relationship between the caregiver and care recipient is a key variable concerning caregiver obstacles, resources, and coping strategies. When a caregiver is confronted with the numerous emotional and physical tasks of care for a family member, the problems that are to be managed or altered directly involve the care recipient and subsequently the dyadic relationship (Kramer, 1992). Maintaining vigilant emotional relatedness to a significant other such as a spouse may influence caregiver well-being and increase the stress of the caregiving role. An inability to do so often results in depression and withdrawal of efforts and, in turn causes guilt over not being able to cope with the ill family member (Cantor, 1983).

Moos (1993) stated that aspects of the personal-environmental system, such as demographic and psychosocial factors, and the broader environmental barriers, such as additional life stressors and community and family resources may also influence the selection of coping strategies. Fondacaro and Moos (1987) and Holahan and Moos (1987) reported that family support predicted a decline in the use of emotional discharge and other avoidance coping responses over time. In general, Billings and Moos (1982) found that people in cohesive and achievement-oriented families were more likely to use problem-focused coping strategies. Members of conflict-oriented and controlling families were more likely to rely on avoidance coping strategies. In examining other demographic and psychosocial influences on coping, Holahan and Moos reported that subjects who had higher incomes and were better educated, who were more self-confident and easygoing, and who had more family support were more likely to rely on approach versus avoidance coping. Relatedly, Martin and Lee (1992) revealed that subjects of lower socioeconomic status relied more on avoidance coping. Weisman (1979) indicated similar findings among the cancer patients he studied. Their psychological vulnerability and distress levels also surpassed that of subjects from a higher socioeconomic status.

Another factor that may impact the selection of coping strategies is religious belief and activity. Rabbins, Fitting, Eastham, and Zabora (1990) examined the emotional adaption and coping processes of caregivers for chronically ill elderly people over a two year period. Both groups, Alzheimer's and dementia caregivers, showed a decline in anxiety and negative mood with dementia caregivers also experiencing a decline in anger. A multiple regression analysis revealed that caregiver neuroticism, self-reported low strength of religious beliefs, and anger explained 54% of the variance of the negative affect balance score at a two year follow-up. A higher number of social contacts at the index interview and strong self-reported religious faith explained 43% of the variance of positive affect balance (Rabins, et al.). It appears from the findings of this study that the strength of religious beliefs may be associated with the adaption and coping processes of caregivers. Allport (1963) identified the positive benefit of feeling supported by one's religious views as an important correlate of mental health. Weisman (1979) also found an association between religious activity, religious belief, and coping processes.

It has been postulated that developmental changes and aging may influence coping strategies (Barusch and Spaid, 1989; Compas, Banez, Malcarne, and Worsham, 1991). Aldwin (1991) has investigated the effect age has upon the coping process. She found that neither age nor perceived controllability had direct effects on depression, but they had indirect effects through their influence on the use of coping strategies and perceived efficacy. Aldwin suggested that it may be better to understand aging in terms of experience. As individuals age, exposure to a variety of problems increases. Through learning, individuals hopefully come to realize which types of coping are effective and which types of coping are ineffective. Some individuals may develop self-limiting life styles through which many problems are avoided by severely restricting their range of resources or they may continue ineffective coping strategies (Lowenthal, Thurnher, and Chiriboga, 1975). In general, however, Aldwin suggested that through experience people may increase their coping repertoires and become more able to successfully cope with life.

Immediate and Long-Term Effects of Coping

The last two components of the Lazarus conceptualization of the coping process focus on the immediate and long-term effects of coping. In both cases, the physiological, emotional, psychological, and social impact upon the individual appears to be closely related to the personal-environmental resources available, the appraisal of the stressors, and coping strategies selected for use. In a study of 597 caregivers, researchers found associations between lower levels of life satisfaction and physical health, and higher levels of caregiver distress with avoidant emotion-focused coping (Pett, Caserta, Hutton, and Lund, 1988). Various problem-focused strategies, such as confidence in problem solving ability, seeking spiritual support, and reframing were found to be related to lower emotional distress, while passivity or avoidance coping was related to increased emotional distress (Pratt, Schumall, Wright, and Cleland, 1985). In their study of 54 family caregivers, Haley et al. (1987) have found that the problem-focused strategy of information-seeking was related to better health outcomes, lower depression, and higher life satisfaction whereas emotional discharge was related to higher levels of depression.

Quayhagen and Quayhagen (1988) examined the coping strategies and well-being of 58 caregivers of Alzheimer's patients and found slightly different patterns among husbands, wives, and daughters. For example, coping patterns of help-seeking and problem-solving were associated with well-being for husbands and wives but not for daughters. Borden and Berlin (1990) have found two emotion-focused coping strategies inversely related with psychological well-being. Additionally, Harvis and Rabins (1989) have revealed that problem-focused coping to be positively associated with perceived overall physical health.

Caregiver studies have identified a vast array of coping dimensions and have examined multiple outcome measures. Generally, the use of emotion-focused coping strategies (e.g., cognitive avoidance, acceptance or resignation, seeking alternative rewards, and emotional discharge) are associated with more negative caregiver outcomes such as depressive mood, psychological vulnerability, and deficits in well-being and life satisfaction (Billings and Moos, 1984; Weisman, 1979). Problem-focused strategies such as logical analysis, positive reappraisal, seeking guidance and support, and problem solving are generally associated with increased well-being (Schaefer and Moos, 1992).

Summary

As initially cited by Northouse and Swain (1987), there appears to be a legitimate need for understanding and support of male caregivers coping with a cancer diagnosed partner. It is a complex, multi-dimensional area of concern. The degree to which helping professionals, including professional counselors, understand the relationship between male emotional and psychological vulnerability, potential barriers to male caregiving, and the coping process will determine how effective both the needs of male caregivers and female care recipients are met.

CHAPTER THREE

METHODOLOGY

This study explored the relationship between the factors of emotional and psychological vulnerability (i.e., level of self-esteem, locus of control, sex-role orientation, quality of premorbid marital relationship, and level of depressive mood) and the coping processes of male caregivers. It also investigated psychosocial and demographic variables (e.g., socioeconomic status, religious activity, level of education, age, and degree of androgyny) thought to be related to the coping processes of male caregivers. Those areas identified by male caregivers as possible barriers to caregiving (i.e., physical and emotional health, availability and use of community and family support, and gender-related issues) in the cancer experience also were examined. This chapter includes the research hypotheses, subjects, instrument descriptions, study procedures, and data analysis.

Research Hypotheses

Research hypotheses for the present study were based on the research questions presented in chapter one:

Hypothesis One. Male caregivers who use a greater proportion of approach (problem-focused) coping strategies will have a higher level of self-esteem, internal locus of control, affective sex-role orientation, a better reported quality of premorbid marital relationship, higher socioeconomic status, more religious activity, a lower level of depressive mood , a higher educational level, and greater age than will those male caregivers who use a greater proportion of avoidance (emotion-focused) coping strategies.

Hypothesis Two. Male caregivers who appraise the cancer experience as a challenge will have a lower level of depressive mood than will male caregivers who appraise the cancer experience as a threat.

Hypothesis Three. Male caregivers with a low level of depressive mood will have a higher level of self-esteem, internal locus of control, and a better reported quality of premorbid marital relationship than will male caregivers with a high level of depressive mood.

Hypothesis Four. Male caregivers with an affective sex-role orientation will report fewer barriers to male caregiving than will those male caregivers with an instrumental sex-role orientation.

Hypothesis Five. There will be a greater degree of androgyny in older male caregivers than in younger male caregivers.

Subjects

Seventy-four married males whose wives had been diagnosed as cancer patients volunteered to serve as subjects. The subjects' wives's were patients using the services of the Cancer Patient Support Program of The Bowman Gray School of Medicine in Winston-Salem, North Carolina. Volunteers who had been or had children who had been previously diagnosed as having of cancer were excluded from participation in the study. Also excluded were volunteers who had a history of psychiatric admissions, been engaged in counseling, or were under drug treatment for a mental or emotional problem at the time of the study. Volunteers were included in the study sequentially as they met the above criteria. Two volunteers were excluded from the study due to the above criteria (i.e., one was excluded due to a mental problem related to a stroke while another volunteer was excluded due to previously having had cancer himself).

Instruments

Demographic Information Questionnaire (see Appendix A)

General sociodemographic information collected from the subject caregiver included age, race, level of education, employment status, religious activity, annual income, and marital history (length and determination of whether this marriage was the first). Additional information was obtained from the subject caregiver for future research and analyses (e.g., his use of drugs and alcohol, counseling services, and support groups since his wife's diagnosis of cancer). Basic information also was obtained about the cancer patient (i.e., age, race, level of education, type of cancer, and date of diagnosis).

Rosenberg Self-Esteem Scale (see Appendix B)

Self-esteem, which refers to the regard to which one holds oneself, was measured by the Rosenberg (1965) scale. The scale contains 10 items, scored on a 4-point Likert response scale, with endpoints labeled "Strongly Agree" (1), to "Strongly Disagree" (4). Five of the items were reverse-coded. In following the format of the scale, subjects indicated their agreement with the statements as to their own perceived worth and competence. Test-retest (2 weeks) reliability was r=.85 (Rosenberg). Coefficient alpha reliability was .75. Validity correlations ranged from -.34 to .40 (Weiss, 1978).

Rotter's Internal-External (I-E) Scale (see Appendix C)

Locus of control, the degree to which an individual feels in control of environmental events influencing his or her choices, social interactions, and decision-making abilities, was measured by Rotter's Internal-External (I-E) Scale (Rotter, 1966). It is a 29-item forced-choice scale with six filler items in which subjects chose one of two statements. One choice reflected an external frame of reference while the other choice indicated an internal frame of reference. Total possible score on the scale was 23 with the filler items unscored. The total score was the total number of external choices. Schmitt and Kurdek (1984) used Rotter's Internal-External Scale in a study of social anxiety among college students and homosexuals. They reported a Cronbach's alpha of .78 and validity correlations with social anxiety of -.38 (college students) and -.31 (homosexuals). Franklin (1963) obtained an internal consistency of .69 and other estimates of internal consistency have been relatively stable ranging from .70 to .73 (Rotter). Test-retest reliability for a one-month period appeared quite consistent in two distinct samples: .72 for a college sample and .78 for a prisoner sample, respectively (Rotter). Joe (1971) found discriminant validity an evidenced by low correlations with such variables as adjustment, intelligence, and need for social approval.

Sex-role Index (SRI) (see Appendix D)

A modified and shortened version of Bem's (1974, 1978) sex-role inventory was used to measure psychological androgyny of the male caregiver subjects. The index gauged the extent to which male subjects perceived themselves to exhibit traditional male (instrumental) as compared to female (affective) personality traits. The Sex-role Index is a ten-item composite measure scored on a 5-point scale. Bem's sex-role inventory (BSRI) has a coefficient alpha ranging from .80 to .86 (Bem). Test-retest reliability over a four week interval for the BSRI proved to be highly reliable (Masculinity r=.90; Femininity r=.90) (Bem). BSRI validity correlations with the masculinity-femininity scales of the California Psychological Inventory (CPI) ranged from -.25 to .50 (Bem). Kaye and Applegate (1990a) obtained a reliability coefficient of .71 utilizing the SRI.

Quality of Premorbid Marital Relationship Inventory (see Appendix E)

Quality of Marital Relationship Since Diagnosis (see Appendix F)

An inventory developed by Williamson and Schulz (1990) was employed to measure the quality of the caregiver-patient premorbid relationship (Appendix E). The same inventory was used in this study to measure the quality of the caregiver-patient relationship since the diagnosis of cancer (Appendix F). The inventory consisted of 17 items originally selected from the Communication, Affective Expression, and Involvement subscales of the Dyadic Relationship component of the Family Assessment Measure (Skinner, Steinhauer, and Santa-Barbara, 1983). The internal consistency reliability estimates for these subscales ranges from .59 to .77 (Skinner, Steinhauer, and Santa-Barbara). Subjects were asked to rate the appropriateness of each statement in describing their relationship with their wife before (Appendix E), and after (Appendix F), the onset of illness. Williamson and Schulz selected these 17 items for their conceptual ability to measure quality of prior relationship in terms of communication, involvement, and affect expression. After reversing the scores on the positively worded items, responses were summed to a total relationship rating. The rating may range from 17 to 68, with lower ratings indicating closer relationships. Williamson and Schultz (1990) reported a Cronbach's alpha of .87. Relatedly, Kramer (1992) obtained a coefficient alpha of .80. Concurrent validity with other similar self-report measures, such as the Family Environment Scale (Moos and Moos, 1981) and the Family Adaptability and Cohesion Inventory (Olson, Portner, and Lavee, 1985), has been indicated (Bloom, 1985).

Center for Epidemiologic Studies-Depression Scale (CES-D) (see Appendix G)

Level of depressive mood of male subject caregivers was measured by the Center for Epidemiologic Studies-Depression Scale (CES-D). This widely used scale asks how often in the past week the respondent has experienced each of 20 symptoms. The CES-D yields a score of 0 to 60, with a cutoff of 16 found to be a valid indicator of depressive mood (Radloff, 1977). The CES-D has demonstrated satisfactory internal consistency ranging from .85 to .90 and test-retest reliability of .45 to .70 over as twelve month period (Radloff). Schulz and Williamson (1991) obtained .90 internal consistency with their sample. Relatedly, Kramer (1992) reported a coefficient alpha of .86 with the CES-D in her study of depressive mood among dementia caregivers. The CES-D has been consistently predictive of depressive mood and has demonstrated good construct validity in both clinical and community samples (Roberts and Vernon, 1983).

Barriers to Caregiving Index (see Appendix H)

This index, developed by Kaye and Applegate (1990a), measured the extent to which a range of potential factors serve to limit the caregiving actions of men. Caregivers based their responses on their personal experience of caregiving. The 16-item index was scored on a 4-point scale. The index items were factored into three dimensions that may impact male caregiving, that is, physical and emotional health, the availability and use of community and family support, and gender-related issues. Kaye and Applegate (1990a) found a reliability coefficient for male caregivers of .86 whereas validity coefficients ranged from .45 to .88.

Coping Responses Inventory-Adult (CRI-A) (see Appendix I)

Researchers have used two main conceptual approaches to classify coping responses. One approach emphasizes the orientation or focus of coping (problem-focused or emotion-focused), whereas the other emphasizes the method of coping (cognitive or behavioral) (Billings and Moos, 1981, 1984; Folkman and Lazarus, 1985; Lazarus and Folkman, 1984; Roth and Cohen, 1986). In order to investigate the coping responses selected by the male caregivers in this study the Coping Responses Inventory-Adult (CRI-A) was used.

The CRI-A developed by Moos (1993) is a measure of eight different types of coping responses to stressful life circumstances. The responses are measured by the following eight scales: Logical Analysis (LA); Positive Reappraisal (PR); Seeking Guidance and Support (SG); Problem Solving (PS); Cognitive Avoidance (CA); Acceptance or Resignation (AR); Seeking Alternative Rewards (SR); and, Emotional Discharge (ED). The first set of four scales measures approach or problem-focused coping. The second set of four scales measures avoidance or emotion-focused coping. The first two scales of each set measure cognitive coping strategies while the third and four scales of each set measure behavioral coping strategies. There are six items for each scale. Subjects select and describe a recent stressor, for example, as in this study the announcement that one's spouse has cancer. They then use a four-point coping rating of their reliance on each of 48 coping items.

The four-point coping rating varies from "not at all" to "fairly often." The inventory also includes a set of 10 items that provide information on how the individual appraises the stressor and its outcome. The appraisal items cover the context of the stressor, that is, whether it has occurred before and whether the individual reacted to it as a threat or challenge. These items are included because of the connections between appraisal and coping responses. Individuals who see a stressor as a challenge are more likely to cope actively than those who see a stressor as a threat (Lazarus and Folkman, 1984).

The CRI-A has been reported as suitable for assessing adults aged 18 and over and is used with healthy adults, psychiatric and substance-abuse patients, and medical patients (Moos, 1993). In two field trials Cronbach's alpha for the eight scales for men (N=1194) ranged from .61 to .74 whereas the eight scales for women (N=722) ranged from .58 to .71 (Moos). The moderate nature of the scale internal consistencies may be the result of one or two coping responses alleviating stress and reducing the use of other responses within the same category. This probably sets an upper limit on the scale internal consistencies (Moos, 1993). In a 12-month follow-up study, the CRI-A coping factors were moderately stable among men and women (average r=.45 for men and .43 for women for the eight factors) (Moos). Moderate positive intercorrelation among the eight scales also were noted (average r=.29 for men and .25 for women). The correlations among the four approach strategies of .47 for men and .42 for women are higher than those among the four avoidance strategies, (i.e., .29 for men and .24 for women) (Moos). This moderate intercorrelation demonstrated that people who rely on one type of approach coping also employ other sets of approach coping responses. Moos noted that people who experience more pervasive and severe stressors tend to use more coping strategies of all types. The CRI-A has been shown to have content and face validity by formulating definitions of the specific domains, preparation of items to fit the construct definitions, and the selection of items that were conceptually and empirically related to a dimension (Moos). The findings of Moos and other investigators (Finney and Moos, 1991; Finney, Moos, and Brennan, 1991; Nace, Davis, and Gaspari, 1991) generally support the construct, concurrent, and predictive validity of the CRI-A scales.

In order to examine the variables of interest in this study, a classification of subjects as either problem-focused or emotion-focused was required. Moos (1993) did not address this issue in the Coping Response Inventory-Adult professional manual. In this study, subject responses on the four problem-focused scales were compared to subject responses on the four emotion-focused scales. Subject responses with a total raw score of nine or above on a response scale of 0-18 were used as evidence of average or above use of that specific coping strategy. Each of the eight scales were scored in this manner. If a subject scored nine or above on a greater proportion of problem-focused scales than emotion-focused scales, he was classified as a problem-focused (approach) subject. The opposite was true if he indicated the use of a greater proportion of emotion-focused (avoidance) coping strategies. Those subjects indicating an equal use of problem and emotion-focused coping strategies were analyzed is a similar statistical manner as those subjects who were definitively classified by the above procedure as either problem-focused or emotion-focused. This is not a classification procedure outlined by Moos but there was reasonable utilitarian and statistical justification for the use of such a procedure in the present study.

Procedures

A number of factors were selected for investigation as possible contributors to male caregiver vulnerability and difficulty with coping. These factors were self-esteem, locus of control, sex-role orientation, quality of premorbid marital relationship, and depressive mood. Potential barriers to male caregiving also were selected for examination (i.e., physical and emotional health, the availability and use of community and family support, and gender-related issues). The coping response pattern of the male caregivers in the study was measured and related to the above factors and barriers.

Husbands of cancer diagnosed females who had had knowledge of their wives's diagnosis for at least 10 days were recruited into the study. The medical records of female cancer patients diagnosed with cancer at the Comprehensive Cancer Center of Bowman Gray School of Medicine of Wake Forest University in Winston-Salem, North Carolina were reviewed. The name, address, and telephone number for each of these female cancer patients was extracted from the medical records by the Tumor Registry Department. Each of the 315 female cancer patients whose names appeared on the initial list was screened by their attending physician to ensure that contact from the hospital and their physician was not medically detrimental. Once the attending physician gave approval to contact his/her patient, a letter was sent to the patient co-signed by their attending physician and the director of the Cancer Patient Support Program describing the purpose of the study and the conditions of confidentiality and anonymity regarding the use of the data collected. After the patient and her spouse discussed his possible participation in the study, the patient was asked to return an enclosed postcard to the Comprehensive Cancer Center indicating the willingness of her husband to participate in the study. Those patients who did not return the postcard after 10 days were contacted by telephone concerning the receipt of the letter and postcard and the willingness of their husband to participate. Appendix J contains a sample of the letter, postcard, and telephone script used in the recruiting process. After the postcards were returned, those husbands who volunteered were sent a consent form (see Appendix K), a questionnaire (see Appendix A), and a package of instruments (see

Appendices B, C, D, E, F, G, H, and I) with accompanying instructions on how to complete the questionnaire and enclosed instruments. They were asked to read and sign the consent form, witnessed by an adult of at least 18 years, indicating their willingness to be a volunteer in the study. The subjects were instructed to complete the questionnaire in a quiet location of their own choice and to avoid distractions. They were asked to return the completed questionnaire, instruments, and consent form to the Comprehensive Cancer Center of the Bowman Gray School of Medicine within 14 days of receipt via an enclosed self-addressed postage paid envelope. Should questions arise, the subjects were encouraged to call the primary investigator, collect. In the initial recruitment process, 115 subjects volunteered to participate. Of the 115 volunteer, 74 subjects eventually completed the demographic questionnaire and assessment instruments.

Data Analysis

Simple descriptive statistics were used to summarize the characteristics of the subjects. Univariate frequencies and descriptive statistics, for example, measures of central tendency and variances, were examined for single and multiple-item factors. Inferential statistics were used to examine relationships among independent and dependent variables.

Hypothesis One was tested by performing a two-group discriminant function analysis, a multivariate analysis of variance, t-tests, and Chi-square tests for independence. An analysis of variance was conducted to test

Hypothesis Two. Multiple regression and correlation analysis procedures were performed to test Hypothesis Three. A two-tailed independent t-test was used to examine Hypothesis Four. Two statistical analyses were used to test Hypothesis Five, a Chi-square test for independence and a two-tailed independent t-test. Additional analyses of the sample data were conducted by performing a correlation analysis, paired-difference t-test, and a content analysis of selected variables.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter contains three major sections: results of hypotheses testing, additional analyses, and discussion. Data are presented in subsections which parallel the research hypotheses and data analysis described in Chapter III. The discussion section includes explanations of the results.

Results of Hypotheses Testing

Results reported in this section are based on descriptive and inferential statistics which were used to examine relationships among independent and dependent variables. Descriptive statistics, including means and standard deviations, were calculated to describe the sample. Inferential statistics used include multivariate analysis of variance, regression analysis, t-tests, Chi-square test for independence, and correlations. Using the results of these analyses, overall findings relevant to the hypotheses are examined.

Description of Subjects

Descriptive statistics describing the dependent variables of the sample are reported in Table 2. Frequencies of demographic variables thought to be related to the coping processes of male caregivers are described statistically in Table 3.

Table 2

Dependent Variables for the 74 Subjects

VARIABLE	MEAN	MEDIAN	MODE	STANDARD DEVIATION
Age	54.07	54	54	11.87
Self-Esteem	16.03	15	15	4.85
Premorbid Relationship	27.81	28	30	6.15
Relationship Since Diagnosis	26.69	26	26	6.14
Barriers	11.84	10.5	9	8.67
Depressive Scale	16.16	14	13	7.55
Time From Diagnosis	26.78	15.5	12	28.70
Length of Marriage	26.91	26	24	12.62
Socioeconomic Status	13.38	13	14	1.80

Of the 315 male caregivers contacted, 74 participated in the study. This represents a response rate of approximately 24%. As Tables 2 and 3 indicate, the typical respondent was a Caucasian 54 year-old male with relatively high self-esteem, a high quality of premorbid marital relationship, and a relatively stable marital relationship since the diagnosis of his wife's cancer. He had experienced minimal barriers to caregiving, had low depressive mood, had known of his wife's diagnosis for at least 26.78 months, and had been married for approximately 26.91 years. This typical respondent had a high socioeconomic status, was religiously active, was a college graduate, had an internal locus of control, and was affective (androgynous) in his sex-role

Table 3

Frequencies of Demographic Variables

VARIABLE	FREQUENCY	PERCENT	CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
Male Religious Activity				
Frequently	48	64.9	48	64.9
Moderately	8	10.8	56	75.7
Infrequently	18	24.3	74	100.0
Level of Education				
Elementary	1	1.4	1	1.4
Some High School	5	6.8	6	8.1
High School Graduate	15	20.3	21	28.4
Post High School/College Training	15	20.3	36	48.6
College Graduate	24	32.4	60	81.1
Graduate/Professional	14	18.9	74	100.0
Male Race				
White	73	98.6	73	98.6
Hispanic	1	1.4	74	100.0
Locus of Control				
External	11	14.9	11	14.9
Internal	63	85.1	74	100.0
Sex Role Orientation				
Instrumental	33	44.6	33	44.6
Affective (Androgynous)	41	55.4	84	100.0

Table 3 (Con't)

Female Race				
White	74	100.0	74	100.0
Female Religious Activity				
Frequently	54	73.0	54	73.0
Moderately	9	12.2	63	85.1
Infrequently	11	14.9	74	100.0
Cancer Type				
Breast	47	63.5	63.5	47
Colon	4	68.9	5.4	51
Colon/Liver	1	70.3	1.4	52
Hodgkins	1	71.6	1.4	53
Kidney	3	75.7	4.1	56
Leukemia	2	78.4	2.7	58
Lung	2	81.1	2.7	60
Lymphoma	3	85.1	4.1	63
Non-Hodgkins	2	87.8	2.7	65
Non-Hodgkins	1	89.2	1.4	66
Ovarian	2	91.9	2.7	68
Pancreatic	1	93.2	1.4	69
Rectal	1	94.6	1.4	70
Sinus	1	95.9	1.4	71
Skin	1	97.3	1.4	72
Thyroid	1	98.6	1.4	73
Uterine	1	100.0	1.4	74

Note: Religious Activity (Male/Female): Frequently (3X/Month) Moderately (1-2X/Month) Infrequently (Less than 4X/Year) orientation. Approximately 64% of the typical respondents had wives who had been diagnosed with breast cancer. Supplement demographic questionnaire findings are located in Appendix L. The findings indicated that only 3% of the subjects had used counseling services prior to their wives's cancer with the same percentage using counseling services since diagnosis. Fifteen percent of the subjects thought counseling would be helpful. A total of 24% of the subjects had used support groups since learning of their wives's cancer. Only two subjects indicated they used alcohol on a weekly basis. Many of the subjects indicated that God, friends, family, and professional health care workers were most important in helping them cope. Finally, numerous subjects indicated the government could help by increasing cancer research, education, and funding.

As indicated in Table 4, the most widely used coping responses were seeking guidance and support (SG), problem solving (PS), and positive reappraisal (PR). Coping responses of acceptance or resignation (AR), seeking alternative rewards (SR), and emotional discharge (ED) were used the least by the sample.

Hypothesis One

> Male caregivers who use a greater proportion of approach (problem-focused) coping strategies will have a higher level of self-esteem, internal locus of control, affective sex-role orientation, a better reported quality of premorbid marital

Table 4

Descriptive Statistics for Dependent Variables: (Coping Responses Inventory)

VARIABLE	MEAN	MEDIAN	MODE	STANDARD DEVIATION
Logical Analysis	10.24	11	8	3.93
Positive Reappraisal	11.35	12	12	3.79
Seeking Guidance and Support	12.08	12.50	15	3.88
Problem Solving	11.5	12	15	4.07
Cognitive Avoidance	5.09	5	3	3.29
Acceptance or Resignation	6.18	6	3	3.84
Seeking Alternative Rewards	4.18	4	2	3.02
Emotional Discharge	3.03	2.50	2	2.66

relationship, higher socioeconomic status, more religious activity, a lower level of depressive mood, a higher educational level, and greater age than will those male caregivers who use a greater proportion of avoidance (emotion-focused) coping strategies.

A two group (avoidance versus approach coping strategy) discriminant function analysis at a .05 level of significance was proposed with the five quantifiable dependent variables (i.e., self-esteem, depressive scale, premorbid relationship, age, and socioeconomic status). Prior to performing the discriminant function analysis, a preliminary multivariate analysis of variance (MANOVA) test was performed at the .05 level. The results of the MANOVA were not significant, therefore, the discriminant function analysis was not performed as the groups could not be differentiated by the variables included in the model (Tabachnick and Fidell, 1993). The results of the MANOVA as shown in Table 5.

As a follow-up to the MANOVA, individual t-tests were performed on each of the five quantitative variables to further assess any differences (Table 6). The probability of a significant difference between the two coping strategy groups among the five quantifiable variables (i.e., self-esteem, depressive mood, premorbid relationship, age, and socioeconomic status) ranged from .263 to .991. This exceeded the established level of significance of .05. Therefore, it can be concluded that any measurable difference in the two groups as related to these variables could be attributed to random variation.

A Chi-Square test for independence was performed with the four qualitative dependent variables (i.e., locus of control, sex-role orientation, religious activity,and educational level) and the avoidance versus approach coping strategy groups (Tables 7). As reported in Table 7, 86% of the "approach" subjects reported an internal locus of control compared with 81% of the "avoidance" subjects. The difference was not significant (X^2=.326, p=.568). The results reported in Table 7 indicate 57% of the "approach" subjects reported an affective sex-role orientation. An equal percentage of "avoidance" subjects reported an affective or androgynous sex-role orientation. When the two coping strategy groups were compared as to their sex-role orientation, no difference was found (X^2=.000, p=.983).

Table 5

Results of the Preliminary Multivariate Analysis of Variance (MANOVA)

STATISTIC	VALUE	F	NUM DF	DEN DF	P > F
Wilks' Lambda	0.971%	0.401	5	66	0.847

Table 6

Comparison of Coping Strategy Groups by Dependent Quantitative Variable

VARIABLE	N	MEAN	STANDARD DEVIATION	T	P VALUE
SELF ESTEEM					
Approach	51	15.902	4.527	-0.449	0.655
Avoidance	21	16.476	5.836		
PREMORBID RELATIONSHIP					
Approach	51	27.843	6.054	0.051	0.959
Avoidance	21	27.762	6.260		
SOCIOECONOMIC STATUS					
Approach	51	13.510	1.815	1.128	0.263
Avoidance	21	13.000	1.549		
DEPRESSIVE SCALE					
Approach	51	16.118	7.243	0.011	0.991
Avoidance	21	16.095	8.723		
AGE					
Approach	51	53.333	11.522	-1.056	0.295
Avoidance	21	56.571	12.544		

Table 7

Comparison of Coping Strategy Groups by the Variables

Locus of Control

STRATEGY	EXTERNAL	INTERNAL	DF	X2	P VALUE
Approach	7 (14%)	44 (86%)	1	0.326	0.568
Avoidance	4 (19%)	17 (81%)			

Sex-Role Orientation

STRATEGY	INSTRUMENTAL	AFFECTIVE	DF	X2	P VALUE
Approach	22 (43%)	29 (57%)	1	0.000	.983
Avoidance	9 (43%)	12 (57%)			

Religious Activity

STRATEGY	FREQUENTLY	MODERATELY	INFREQUENTLY	DF	X2	P VALUE
Approach	34 (67%)	4 (8%)	13 (26%)	2	1.994	.369
Avoidance	13 (62%)	4 (19%)	4 (19%)			

Educational Level

STRATEGY	BEYOND HIGH SCHOOL	HIGH SCHOOL OR LESS	DF	X2	P VALUE
Approach	34 (67%)	17 (33%)	1	1.469	.225
Avoidance	17 (81%)	4 (19%)			

The levels of religious activity for "approach" caregivers versus "avoidance" caregivers also were compared. The levels of religious activity were as follows: frequently (three times per month); moderately (one to two times per month); infrequently (less than four times per year). Seventy-five percent of the "approach" subjects reported being frequently religiously active or moderately compared with 81% of the "avoidance" subjects. Twenty-six percent of the "approach" subjects infrequent religious activity levels compared with 19% of the "avoidance" reported subjects. No significant difference among the groups related to coping strategies was found ($X^2=1.994$, $p=.369$). Finally, a Chi-square test for independence for the dependent variable of educational level was performed. The sample was divided into two educational level groups, that is, education beyond high school and education of high school or less. When these two groups were compared by reported coping strategy used, 67% of those subjects who used approach coping strategies had a reported education level of beyond high school compared with 81% of the same educational level who were identified as using avoidance coping strategies. The results of Chi-Square test for independence reported in Table 7 shows that this difference was not significant ($X^2=1.469$, $p=.225$). Based upon the absence of a significant relationship between the coping strategies of approach and avoidance for these quantitative and qualitative variables, all components of Hypothesis One are rejected.

Hypothesis Two

> Male caregivers who appraise the cancer experience as a challenge will have a lower level of depressive mood than will male caregivers who appraise the cancer experience as a threat.

Part 1 of the Coping Response Inventory posed the following appraisal questions to the sample subjects: "Did you think of it (the cancer experience) as a threat?" and "Did you think of it (the cancer experience) as a challenge?" These two questions were not exclusive of each other. Subjects could perceive of the cancer experience as either a threat, a challenge, or both. Therefore, three levels of classification were required to test Hypothesis Two. These levels were as follows: Threat (No) and Challenge (Yes); Threat (Yes) and Challenge (No); Threat (Yes) and Challenge (Yes). Descriptive statistics for each classification are reported in Table 8. The means for the three groups were quite similar. An analysis of variance among the three groups was subsequently performed (Table 9) and no significant differences at the .05 level were found (F-0.00, p=1.0). Therefore, Hypothesis Two is rejected.

Hypothesis Three

> Male caregivers with a low level of depressive mood will have a higher level of self-esteem, internal locus of control, and a better reported quality of premorbid marital relationship than will male caregivers with a high level of depressive mood.

Table 8

Descriptive Statistics for Threat/Challenge Classification Levels (THRTCHAL)

LEVEL OF THRTCHAL CLASSIFICATION	N	MEAN	SD
No and Yes	15	16.200	11.705
Yes and No	14	16.214	4.353
Yes and Yes	41	16.219	6.882

Table 9

Analysis of Variance (ANOVA) for Appraisal of Cancer Experience with Dependent: Variable: Level of Depressive Mood

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P VALUE
Model	2	0.004	0.002	0.00	1.000
Error	67	4059.781	60.593		
Corrected Total	69	4059.785			

Descriptive statistics for the qualitative variable (i.e., locus of control) and quantitative variables were calculated (Table 10). A correlation analysis of the quantitative variables was performed (Table 11). Since the correlation of self-esteem and quality of premorbid relationship with level of depressive mood was low (i.e., 23 for each independent variable), the expectation was that neither variable would predict level of depressive mood very well. The results of the multiple regression analysis support this expectation (Table 12).

Table 10

Descriptive Statistics for Qualitative and Quantitative Variables

VARIABLE	N	MEAN	STANDARD DEVIATION
DS	74	16.16	7.55
SE	74	16.03	4.85
PR	74	27.81	6.15
LOC (Internal)	63	15.52	6.13
LOC (External)	11	19.82	12.88

Note: Variables are represented as follows:
Depressive scales (DS); Self-esteem (SE); Quality of premorbid relationship (PR); Locus of control (LOC)

Table 11

Correlation Coefficients for Variables Depressive Scale (DS), Self-Esteem (SE), and Premorbid Marital Relationship (PR)

VARIABLE	DS	SE	PR
DS	1.000 0.000	0.229 0.049	0.228 0.050
SE	0.229 0.049	1.000 0.000	0.424 0.000
PR	0.228 0.050	0.424 0.000	1.000 0.000

With significance probabilities for self-esteem, locus of control, and quality of premorbid relationship at .475, .129, and .129 respectively, these independent variables individually do not appear to predict the level of depressive mood. As a set, the three independent variables predicted only 10% of the variation in depressive mood. Hypothesis Three is not, therefore, supported.

Table 12

Multiple Regression Analysis of Variance for Level of Depressive Mood

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P VALUE
Model	3	432.656	144.218	2.708	0.052
Error	70	3727.397	53.248		
C Total	73	4160.054			

R-square	0.1040
Adj R-sq	0.0656

Parameter Estimates

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|
Intercept	1	10.432	4.834	2.158	0.034
SE	1	0.147	0.205	0.718	0.475
LOC	1	-3.881	2.526	-1.537	0.129
PR	1	0.239	0.155	1.537	0.129

NOTE: Dependent variable = Depressive Scale; Independent variables = Self-Esteem (SE), Locus of Control (LOC), and Quality of Premorbid Marital Relationship (PR)

Hypothesis Four

Male caregivers with an affective sex-role orientation will report fewer barriers to male caregiving than will those male caregivers with an instrumental sex-role orientation.

A comparison of barriers by sex-role orientation group was performed (Table 13, Appendix M). At a .05 level of significance, assuming equal variance for the barrier data, the p-value of .701 exceeds the established significance level indicating that the mean number of barriers for affective sex-role subjects (11.48) was not significantly different than the mean number of barriers reported by instrumental sex-role subjects (12.27). Hypothesis Four, therefore, is rejected.

Hypothesis Five

> There will be a greater degree of androgyny in older male caregivers than in younger male caregivers.

Male caregivers were divided into two groups by age. Fifty-four years of age, as the median for the sample, was used as the dividing mark. There were 38 subjects who were 54 years of age or older while 36 subjects were less than 54 years of age. A Chi-Square test for independence (Table 14, Appendix M) was conducted to test this hypothesis. The p-value for the Chi-Square test for independence of .363 indicates that age was not significantly related to sex-role orientation. Hypothesis Five is, therefore, rejected.

Additional Investigations

Two additional areas of investigation were conducted beyond the original hypotheses. The further review of caregiver literature (Brody, 1989; Horowitz, 1985b; Noelker and Wallace, 1985) has indicated that the quality of the marital relationship is often strained and disrupted during a crisis situation. It is speculated that the cancer experience qualifies as such a crisis. In order to investigate this supposition that the cancer experience does indeed affect the marital relationship, two statistical analyses were performed (i.e., a correlation analysis and a paired-difference t-test). The results are reported in Tables 15 and 16, respectively. As reasonably expected, Table 15 indicates a strong correlation between quality premorbid marital relationship (PR) and quality of marital relationship since diagnosis of cancer (SD) (r=.85, p=.0001). However, the average premorbid relationship was 27.81 while the average diagnosis was 26.69. As Table 16 reveals, this difference of -1.12 is significant (t=2.85, p=.006). This finding suggests that the quality of marital relationship was negatively affected by the diagnosis of cancer. These findings, therefore,

Table 15

Correlation Analysis of Quality of Premorbid Marital Relationship (PR) And Marital Relationship Since the Diagnosis of Cancer (SD)

VARIABLE	PR	SD
PR	1.000 0.0	0.85 0.0001
SD	0.85 0.0001	1.000 0.0

Table 16

Paired Difference T-test Quality of Premorbid Marital Relationship (PR) Minus Quality of Marital Relationship Since Diagnosis (SD)

COMPARISON GROUPS	N	MEAN	STANDARD DEVIATION	T	P VALUE
Premorbid (PR)	74	-1.12	3.38	-2.85	0.006
Since Diagnosis (SD)	74				

lend credibility to previous findings that the cancer experience can have a significant negative impact upon the quality of the marital relationship.

One of the factors cited as contributing to the decline of the quality of the marital relationship during the cancer experience has been caregiving barriers (Bowers, 1987; Horowitz and Shindelman, 1983; Kaye and Applegate, 1990a). As a statistical follow-up to the barriers to caregiving examined in Hypothesis Four, additional analyses of the barrier categories were conducted. A univariate procedure was used to examine each of the barrier categories, that is, physical/emotional, community/family support, and gender-related. Descriptive statistics of each category are contained in Table 17 (See Appendix M). The reported frequency of each barrier, the percentage of total barriers, and the rank order of the barrier categories (i.e., most frequent (1) to least frequent (3)) are also reported. As Table 17 indicates, physical/emotional barriers were the number one barrier category to male caregiving in the sample.

Finally, a content analysis of barriers by category reveals rank order, frequency, and percentage of individual barriers within each category (Table 18). General stress of caregiving was the most frequently cited barrier in the physical and emotional category while family obligations were reported most frequently as barriers under the community and family barrier category. The subject's family tradition of helping others was the most frequently reported barrier to caregiving in the gender-related category.

Table 18

Content Analysis of Barriers by Category

CATEGORY	FREQUENCY
PHYSICAL AND EMOTIONAL	
General Stress of Caregiving	91
Ability of Friends/Family to Help	70
Physical Health of Wife	69
Mental/Emotional Health of Wife	65
General Personality of Wife	60
Your General Health (Male)	30
COMMUNITY AND FAMILY SUPPORT	
Family Obligations	67
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Discussion

The first hypothesis compared male caregivers who use a greater proportion of approach coping strategies to those who use a greater proportion of avoidance coping strategies as related to the following variables:

a higher level of self-esteem; internal locus of control; affective sex-role orientation; a better quality of premorbid marital relationship; higher socioeconomic status; more religious activity; a lower depressive mood; a higher educational level; and greater age. There were no significant findings between the two groups for any of these quantitative and qualitative variables.

The second hypothesis examined how male caregiver appraisal of the cancer experience impacts the level of depressive mood. The tentative assumption of this hypothesis based upon a review of the literature (Folkman and Lazarus, 1980; Haley et al. 1987) was that male caregivers who appraise the cancer experience as a challenge would have a lower level of depressive mood than those male caregivers who appraise the cancer experience as a threat. This assumption was not supported in this study and is contrary to previous findings. Other factors, either not included in this study or not adequately measured by the Coping Response Inventory (CRI) and/or the Center of Epidemiologic Studies-Depression Scale (CES-D), may be related to level of depressive mood and appraisal. These factors be considered in Chapter Five.

Hypothesis Three examined the relationship of level of depressive mood to level of self-esteem, locus of control, and quality of premorbid marital relationship. The implication through a review of the literature is that level of depressive mood may be predicted based upon these independent variables (Brackney and Westman, 1992; Kramer, 1992; Namir, Wolcott, Fawzy, and

Alumbaugh, 1987). The results of Hypothesis Three did not support such a prediction. The independent variables in this study did not significantly predict the level of depressive mood above what could be expected by random variation of the data. This contrary finding will be considered in the next chapter.

According to caregiver literature, male caregivers with an affective (androgynous) sex-role orientation more readily and easily assume the caregiver role (Kaye and Applegate, 1990a). It appears a more natural role for the affective sex-role oriented male compared to the instrumental sex-role oriented male (Kaye and Applegate, 1990b). In order to examine any differences between the two sex-role oriented groups as related to the number of reported barriers to caregiving, Hypothesis Four was postulated and statistically tested. As previous studies had shown (Kaye and Applegate, 1990a), it was postulated that the affective sex-role oriented males would report fewer barriers to caregiving than would their instrumental sex-role oriented counterparts. This study provided no support for such a postulation. Possible explanations for the lack of any significance difference between these two groups will be explored in Chapter Five.

The final primary hypothesis investigated the supposition that older male caregivers would reveal a greater degree of androgyny than younger male caregivers. The review of male caregiver literature provides this implication (Aldwin, 1991; Bem, 1974; Kaye and Applegate, 1990a). The sample was divided into two age groups. Even through 61% of the subjects above the median age reported an affective (androgynous) sex-role orientation compared with 50% of the subjects below the median age, the difference was not significant above what could be expected due to random variation.

The review of the cancer experience literature strongly suggests objectively and subjectively that cancer affects the quality of the marital relationship (Kramer, 1992; Zarit, Todd, and Zarit, 1986). In order to investigate the affect of the cancer experience upon the marital relationship, subjects completed two identical questionnaires assessing the quality of their premorbid marital relationship (Appendix E) and the quality of their marital relationship since the diagnosis of cancer (Appendix F). Statistical analysis comparing the two reported assessments, before diagnosis and since diagnosis, revealed a small, but significant decline in the quality of the marital relationship. Possible explanations for this decline will be discussed in the next chapter.

Finally, a more detailed examination of the barrier categories revealed that the physical and emotional barrier category was reported as the greatest impediment to caregiving, especially the general stress of the caregiving role. Within the community and family barrier category, ongoing family obligations were reported as the primary obstacle to the caregiving process. The gender-related barrier category was reported as the least obstructive category with one's family tradition of helping others as the most frequent cited obstacle to caregiving in this category.

Overall, the results of this study suggested that factors of emotional and psychological vulnerability (i.e., level of self-esteem, locus of control, sex-role orientation, quality of premorbid relationship, and level of depressive mood) along with psychosocial and demographic variables of socioeconomic status, religious activity, educational level, age, and degree of androgyny were not significantly related to the selection and use of coping strategies by male caregivers. Although the findings of the major hypotheses were not statistically significant, the additional information about the male caregiver process gleaned from this study should not be discarded with only one research attempt. As the additional analysis of the premorbid and post-diagnosis quality of the marital relationship revealed, there is a significant negative impact of the cancer experience upon the marital relationship. The general stress associated with the male caregiving role appears to strengthen this negative impact and impede the benefits of caregiving such as new levels of love, affection, reciprocity, respect, and commitment (Graham, 1983; Motenko, 1988). With three out of four families directly or indirectly experiencing cancer and 526,000 Americans dying annually from cancer, the continued study of the totality of the coping and caregiving process appears to be warranted (American Cancer Society, 1993).

CHAPTER FIVE

SUMMARY, LIMITATIONS, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

This chapter consists of five sections: a summary of the research, limitations of the study, conclusions that may be drawn from the study, recommendations for further research, and implications of the results for male caregivers and helping professionals.

Summary

This study was an examination of the relationship between factors of emotional and psychological vulnerability, psychosocial and demographic variables, and barriers to caregiving thought to be related to the coping processes of male caregivers. According to previous findings, male caregivers who use approach coping strategies (problem-focused) can be differentiated from those male caregivers who use avoidance coping strategies (emotion-focused) (Billings and Moos, 1981; Lazarus and Folkman, 1984; Long, 1987; Moos, 1993; Weisman, 1984). Male caregivers who primarily use approach coping strategies (problem-focused) instead of avoidance coping strategies (emotion-focused) were found to have higher levels of self-esteem, an internal locus of control, an affective sex-role orientation, higher quality of premorbid marital relationship, and a lower level of depressive mood. They also had a higher socioeconomic status, greater religious activity, a higher level of education, greater age, and more androgyny than their avoidance coping strategy counterparts. Previous research indicated that approach male caregivers (problem-focused) reported fewer barriers to caregiving (i.e., fewer physical and emotional, community and family, and gender-related barriers).

In order to investigate the applicability of these findings with male caregivers facing the diagnosis of their wife's cancer, a demographic questionnaire and a package of eight diagnostic instruments were completed by 74 male caregivers of cancer diagnosed females. Level of self-esteem was measured by the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Rotter's Internal-External Scale (Rotter, 1966) was used to determine each subject's locus of control. A modified version of Bem's (1974, 1978) sex-role inventory measured sex-role orientation and androgyny of the subjects. Quality of premorbid marital relationship and marital relationship since the diagnosis of cancer was examined by an inventory developed by Williamson and Schulz (1990). The Center for Epidemiologic Studies-Depression (CES-D) was the instrument used to measure level of depressive mood of each caregiver. Barriers to caregiving were measured by an index developed by Kaye and Applegate (1990a) which examined a range of potential factors that may limit the caregiving actions of males. Finally, the coping strategies used by each subject confronting the diagnosis of his wife's cancer was measured the Coping Responses Inventory-Adult (CRI-A) developed by Moos (1993).

Using the data from the demographic questionnaire and the package of instruments, seven investigations were made. First, the subjects were divided into two coping strategy groups based upon their CRI-A responses. Those subjects with a greater proportion of approach (problem-focused) responses were classified as approach coping strategy subjects. The same procedure was used to classify those subjects with a greater proportion of avoidance (emotion-focused) responses. These two groups were then compared regarding factors of emotional and psychological vulnerability (i.e., level of self-esteem, locus of control, sex-role orientation, quality of premorbid marital relationship, level of depressive mood) and psychosocial and demographic variables (i.e., socioeconomic status, religious activity, level of education, and age). The next investigation examined whether subjects appraised the cancer experience as a challenge or a threat and how such an appraisal affected level of depressive mood. The third analysis of the data examined the presence of a relationship between level of depressive mood and independent variables of self-esteem, locus of control, and quality of premorbid marital relationship. Investigation four examined the relationship of sex-role orientation and number of barriers to caregiving. The degree of androgyny reported by older male caregivers compared to younger male caregivers was the focus of investigation five. A comparison of the quality of the premorbid marital relationship and the marital relationship since the diagnosis of cancer was examined in investigation six. Finally, a detailed examination of the specific barriers reported to be limiting the caregiving process was performed.

Results of the study indicated the factors of emotional and psychological vulnerability along with psychosocial and demographic variables were not significantly related to the selection and use of coping strategies by male caregivers. Although the major hypotheses of this study were not statistically significant, additional analyses of the data revealed a significant negative impact of the cancer experience upon the marital relationship since the cancer diagnosis. Additionally, it was found that general stress associated with the male caregiving role is a chief barrier to the caregiving process.

Limitations of the Study

Due to the constant uncertainty of the malady, the cancer experience can have an horrendous impact upon those involved (Jassak, 1992; Northouse, 1984). A "snapshot picture" of coping with cancer does not provide an adequate assessment of the entire process and should be considered a research limitation of this study. Coping with cancer must always be viewed in the larger context of the whole experience. This points to the need for more longitudinal studies if the male caregiving process, with its multitude of variables, is to be fully understood and assessed.

Another limitation of this study is the difficulty in using self-report statements to measure the variables. All of the instruments used were of a self-report nature. Due to the stress of the cancer experience, what subjects were willing or able, to accurately report may have been skewed. This may have been especially true with those subjects who consistently practice problem avoidance. Those subjects who consistently approach problems may have been much more willing to report their thoughts and feelings in an accurate manner. Finally, social desirability may have biased subject response to items on the eight instruments.

Beyond the limitations of self-report, there were specific shortcomings of the Quality of Premorbid Martial Relationship Inventory (QPMRI), the Center for Epidemiologic Studies-Depression (CES-D), and the Coping Responses Inventory-Adult (CRI-A). First, the self-report items of the Quality of Premorbid Martial Relationship Inventory were based upon recall. The rationale given by Williamson and Schulz (1990) for using recall was accepted in this study.

> Although we realized that this measure was subject to recall biases inherent in all retrospective measures, we nevertheless felt that asking caregivers about their past interactions with the patient was less subject to idealized response and confounding with current stress than direct questions about how much affection they felt toward the patient after onset of Alzheimer's disease (p. 502).

A limitation of the Center for Epidemiology Studies-Depression was that it asked about the frequency of feelings or thoughts during the past week. The potential sources of depressive mood were difficult to determine. The items of this instrument did not address the source of the depressive mood. To accurately assess the source of the depressive mood (e.g., the cancer diagnosis of one's spouse), direct questions and possibly several counseling sessions would be necessary. Such a procedure was not administratively and logistically feasible in the present study. Therefore, reliance on the CES-D self-reported items to measure depressive mood was accepted. An assumption was made that the depressive mood was associated with the cancer diagnosis.

A limitation in the use of the Coping Response Inventory-Adult was the manner in which each subject was classified as either problem-focused or emotion-focused. The technical manual developed by Moos (1993) for use with the Coping Response Inventory-Adult does not address this issue. A classification procedure of subjects as either problem-focused or emotion-focused was devised and described in the methodology section of this study. Replication of this study would be limited to the outlined procedure.

The use of volunteers threatened external validity. Volunteers may have been different from those who chose not to participate. Those who volunteered for the study may have been skewed toward the problem-focused coping whereas emotion-focused coping may have characterized non-participants. Moreover, this study is not necessarily generalizable to the caregiving experiences of females, gays, lesbians, non-married individuals. Generalization of the results is limited to male caregiving related to cancer and to institutions similar to the Bowman Gray School of Medicine Comprehensive Cancer Center.

Two final limitations involve the unknown impact upon the findings of this study of cancer severity and duration and the use of cancer support groups by male caregivers. The instruments used in this study failed to measure how these variables might influence subject response.

Conclusions

The findings of the primary hypotheses of this study did not support previous research related to emotional and psychological vulnerability, psychosocial and demographic variables, barriers to male caregiving, and the coping strategies of male caregivers. Additional analyses of the data did reveal a significant negative effect of the cancer experience upon the quality of the marital relationship. Also revealed were the chief reported barriers to the caregiving process (i.e., the general stress of caregiving, family obligations, and tradition of helping others).

There are several possible explanations for these results. Limitations of the instruments were previously noted and should be considered as potentially impacting the findings of this study. The length and detail of the demographic questionnaire and the package of eight instruments each with their own set of instructions could have introduced subject fatigue, confusion, and/or loss of interest prior to their completion by the subjects. Subjects impacted in such a way may have given less than truthful answers in order to expedite the completion process.

It is hypothesized, however, that the results of this study were impacted primarily by the nature of the cancer experience and the type of subjects who volunteered to participate. As noted previously, the cancer experience has a tremendous disequilibrium affect upon the family system (Germino, 1991; Holland, 1981). A diagnosis of cancer creates a monumental crisis that has the potential of shaking the very emotional, psychological, and spiritual foundation of the family system (Ersek, 1992; Larson, 1992). The sudden impact of a cancer diagnosis accompanied with an uncertain duration of morbidity and the constant threat of death leaves the caregiver little time to rally personal emotional, psychological, and spiritual resources. The caregiver does not have the luxury of preparation. Automatic learned conscious and subconscious coping strategies are activated to take on such a life threatening challenge as cancer (Lazarus, 1966; Lazarus and Folkman, 1984). The emotional and psychological whirlwind experience created by a cancer diagnosis leaves no time to learn new coping skills and can result in a condition of helpless uncertainty or existential despair (Weisman, 1979). A recent ABC 20/20 report (1995) succinctly described the difficulties male caregivers have with the diagnosis of their wife's cancer.

> The first reaction when you hear the c-word is death, and I'm typical, probably, of most men that have gone through this.

> We're just as scared. We're just as scared emotionally. We don't show it and we keep it inside, but I can tell you there is a lot--you know, we are just as confused as -- as our wives are (p. 6).

Based upon the reported presence of fear and confusion created by the nature of the cancer experience, it is speculated that self-selection bias impacted the results of this study. A low response rate of approximately 24% to the demographic questionnaire and package of instruments lends some credibility to such speculation. Other studies soliciting data from male caregivers have experienced similarly low response rates (e.g., 29% response rate to a national survey [ABC 20/20, 1995]) and 48% response rate in a cancer study done by Fife, Kennedy, and Robinson (1994). Investigators who are seeking data from individuals in crises, especially when the questionnaire as in this case was extensive and highly personal in nature, can expect self-selection bias. Fife, Kennedy, and Robinson concluded that there is an inverse relationship between the rate of response in such studies and the stress of the crisis.

A further extrapolation from this conclusion is that those subjects who do respond may be highly homogeneous in their coping strategies, emotional and psychological vulnerability, psychosocial and demographic makeup, and caregiving barrier management. The results of this study appear to support such an extrapolation. Problem-focused caregivers would be more inclined to seek answers and solutions and to participate in such a study whereas emotion-focused caregivers would avoid confronting the pain and stress of sorting through feelings and thoughts about the cancer experience (Moos, 1993). The homogeneity of the data, therefore, would not be conducive to differentiation at a significant level. This appears to be the case in this study.

In spite of the homogeneity of the data and an absence of significant findings among the major hypotheses, this study modestly contributes to a growing body of research focusing on the male caregiver and his coping needs. The post hoc finding of significance indicating a decline in the quality of marital relationship since the diagnosis of cancer points to the need for further research to identify negative contributing factors assaulting the marital relationship. Knowing that the chief barriers are the general stress of caregiving, family obligations, and tradition of helping are insightful in planning interventions to counter such barriers and help maintain the health of the family system.

Recommendations for Further Research

Recommendations for further research are based on the results of the study and are designed, in part, to address the limitations outlined above. Accordingly, more longitudinal studies of the male caregiver experience of coping with cancer are needed. A study of this kind is a "snapshot" assessment of a process. Cancer is not a single event. It is a process impacting the entire family system over an uncertain period of time.

Therefore, the accuracy of future studies investigating such emotional and psychological variables as examined in this study would be strengthened by assessing the cancer experience of the male caregiver at periodic intervals during the process. This possibly could be done on a quarterly or semi-annual basis. In such a manner, a truer appreciation of the cancer experience and its impact could be obtained.

Future male caregiver research will continue to face the issue of the accuracy of self-report statements given by subjects. Generally, investigators in this type of research must rely upon self-report instruments. Social desirability may continue to bias subject response. Again, periodic assessments of subject response for such variables as quality of marital relationship and depressive mood may produce a better estimate of the process than a one time assessment. Observations, open-ended questions, and evaluations of the subjects by healthcare professionals could be used to supplement the periodic assessments. In such a manner, the sources of observed variable differences could be explored (e.g., increased depressive mood at this time related to daughter's leaving for college rather than wife's cancer).

Replication of this study by other researchers will continue to confront the need for a system to classify subjects into coping strategy groups. Moos (1993) did not address this issue. There are other seemingly logical ways to classify the coping strategies used by subjects (e.g., the Ways of Coping

Checklist developed by Lazarus and Folkman [1984] and will be up to the investigator to design a procedure to satisfy this need.

In designing such a study in the future, it is recommended that the demographic questionnaire and package of assessment instruments be reduced in content and complexity. The present study's questionnaire and package of instruments may have been intimidating and confusing to some of the subjects. Even though the instrument instructions were designed for a sixth grade level education, a few subjects verbally indicated and in writing that they were not quite sure of what was being asked of them. As in the study done by Fife, Kennedy, and Robinson (1994), the subjects in this study may have found that completing such an extensive questionnaire and package of instruments was psychologically and emotionally distressing. Some of the questions may have been too personal, thereby resulting in less than a truthful response. Future investigators should closely consider the intrusiveness of their research questions. Such consideration will help prevent the creation of additional stress for the male caregivers who are a part of the study.

Coupled with a shorter, less complex, and less intrusive demographic questionnaire and package of instruments, the sample size for further research needs to be greater. This would possibly increase the heterogeneity of the sample and increase generalizability of the findings. Further research could also focus on special groups excluded from the present study (i.e., the caregiving and coping processes of specific racial groups of men, gay men, single men, illiterate men).

Implications of the Results

The primary implications of this study and prior research into male caregiving reveal a need that is not being met by the professional helping community; that is, many men are struggling with their new caregiver role in the cancer experience and are in dire need of assistance. Their typical role of provider, problem-solver, and strong person is directly challenged by the cancer experience (Spence and Helmreich, 1978).

The failure to meet this need hinges upon three factors: the nature of the cancer experience itself; the socialization of males in our society; and resources to implement viable support programs for male caregivers. Cancer can be such a mighty foe that even the most adaptable and accomplished male caregiver can drift in and out of hopelessness, frustration, exhaustion, denial, and avoidance. Weisman (1979) described such a condition of noncoping or vulnerability as existential despair. The four main components of existential despair are annihilation (hopelessness, anxiety, closed-time perspective), alienation (abandonment, isolation, repudiation, worthlessness), endangerment (frustration, turmoil, truculence), and denial (Weisman, 1979). According to Weisman (1979), existential despair is not easily detected and is often hidden by individuals who do not readily admit depression and powerlessness over life's circumstances.

This tendency to hide the private self with its confusion and despair is promoted by the socialization process of males in our society. From early childhood males are taught to avoid the expression of their feelings. Self-reliance and independence are viewed as the ultimate masculine traits. As Herron (1992) indicated, men are caught between two images of masculinity, that is, self-sufficiency and vulnerability. Even though many men are in emotional and psychological pain when experiencing the reality of their wife's cancer, they still have difficulty seeking or receiving support (Spence and Helmreich, 1978). As one male caregiver stated, "The biggest thing I did wrong in communicating was not attempting to communicate at all, you know, fleeing from the whole issue instead of trying to be there" (ABC 20/20, 1995, p.7).

Given that men may be experiencing difficult internal struggles even when they appear strong and well adjusted (Fife, Kennedy, and Robinson, 1994), why are their needs not being met by the professional helping community? One reason is the continued acceptance of the "self-reliant, all-sufficient image" of men in our society. Even physicians who deal with female cancer patients on a daily basis somehow overlook the feelings and fears of the males involved. One surgeon who performs more than 30 breast cancer surgeries a year reported how he forgot to ask the husbands of cancer patients about their fears and uncertainties. His clinical behavior changed, however, when his wife developed breast cancer. As a result of his own personal emotional and psychological turmoil, he now pays more attention to the problems worrying the husbands of his patients. Unfortunately, he readily admits that most physicians still ignore the male needs in such situations. In a national survey of partners of breast cancer patients, 76% of those responding indicated their wives' doctors never inquired about how they were coping with their wives' illness (ABC 20/20, 1995).

Possibly a greater obstacle to meeting this hidden though pressing need is the continued resistance of some men to expose their vulnerability and reach out for help. In the face of such societal and individual barriers, the professional helping community, including counselors, must be proactive. Interventions and programs are needed to do an early, quick, non-intrusive holistic assessment of the family needs when a diagnosis of cancer is made. From the outset of the diagnosis, the entire family needs to be encouraged to become involved. Cancer centers should provide psychoeducational classes for the family focusing upon the medical, emotional, psychological, spiritual, and financial aspects of cancer. These classes should be a mandatory part of the treatment regimen without exception. Once the foundation of the cancer experience is established with the family, separate group sessions for the patient, the male caregiver, and other family members should be provided to address individual needs unique to each group. Again, healthcare professionals should require attendance by each of these separate groups as a part of the overall treatment of the cancer. Upon completion of the mandatory classes and group sessions, optional continuing care support groups should be provided for each group. If individual emotional and psychological support is needed appropriate referrals should be made through the resources of the cancer center.

In tailoring the emotional and psychological interventions for the male caregiver, sensitivity to the barriers of societal socialization and personal self-image should always be utmost in the minds of healthcare providers. Noting that cancer threatens the male role of provider and problem-solver, mental health counselors should be sensitive to the difficulty men experience seeking or receiving help, especially within family relationships (Spence and Helmreich, 1978). Emotional and psychological support given in class, group, and individual sessions should be oriented toward helping the male caregiver cognitively reframe the seeking and receiving of help in a functional, healthy manner. Fife, Kennedy, and Robinson (1994) have advised that male needs for communication, information, and support from professionals should not be minimized or overlooked. Normalization of feelings of fear, anger, guilt, and depression that occurs in conversations with healthcare professionals may help develop a more positive perception of the situation and contribute to the use of more adaptive coping (Fife, Kennedy, and Robinson).

In summary, with 33% of Americans developing cancer during their lifetime and 75% of families directly or indirectly experiencing cancer (American Cancer Society, 1991, 1993), research needs to be directed toward collecting systematic, generalizable data that may be used to plan effective interventions in support of the male caregiver and the family. This type of research is vital to preventing secondary psychosocial problems in individuals confronting the stress of cancer and to improving the quality of life for the cancer patient, the family, and male caregiver.

REFERENCES

ABC 20/20. (1995). What do I say to my wife now? (Transcript 1514). Denver, CO: Journal Graphics.

Aldwin, C. M. (1991). Does age affect the stress and coping process? Implications of age differences in perceived control. Journal of Gerontology, 46 (4), 174-180.

Allport, G. (1963). Behavioral science, religion, and mental health. Journal of Religious Health, 2, 187-197.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders, 4th ed. Washington, DC: Author.

American Cancer Society. (1991). Cancer facts and figures - 1991. Atlanta, GA: Author.

American Cancer Society. (1993). Cancer facts and figures - 1993. Atlanta, GA: Author.

Arkin, W., & Dobrofsky, L. R. (1978). Military socialization and masculinity. Journal of Social Issues, 34 (1), 151-168.

Arling, G. (1987). Strain, social support, and distress in old age. Journal of Gerontology, 42, 107-113.

Barusch, A. S., & Spaid, W. M. (1989). Gender differences in caregiving: Why do wives report greater burden? The Gerontologist, 29, 667-676.

Beigel, D., Sales, E., & Schulz, R. (1991). Family caregiving in chronic illness. Newbury Park, CA: Sage.

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1986). Women's ways of knowing. New York: Basic Books.

Bem, S. L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.

Bem, S. L. (1978). Bem inventory. Palo Alto, CA: Consulting Psychologists Press.

Berger, P., Berber, B., & Kellner, H. (1974). The homeless mind. New York: Vintage.

Bergman, L. R., & Magnusson, D. (1979). Overachievement and catecholamine excretion in an achievement-demanding situation . Psychosomatic Medicine, 41, 181-188.

Billings, A., & Moos, R. (1981). The role of coping responses and social resources in attenuating the stress of life events. Journal of Behavioral Medicine, 4, 139-157.

Billings, A., & Moos, R. (1982). Family environments and adaptation: A clinically-applicable typology. American Journal of Family Therapy, 10, 26-38.

Billings, A., & Moos, R. (1984). Coping, stress, and social resources among adults with unipolar depression. Journal of Personality and Social Psychology, 46, 877-891.

Billings, A., & Moos, R. (1985). Psychosocial processes of remission in unipolar depression: Comparing depressed patients with matched community controls. Journal of Consulting and Clinical Psychology, 53, 314-325.

Bloom, B. L. (1985). A factor analysis of self-report measures of family functioning. Family Process, 24, 39-54.

Borden, W., & Berlin, S. (1990). Gender, coping and psychological well-being in spouses of older adults with chronic dementia. American Journal of Orthopsychiatry, 60(4), 603-610.

Bowers, B. J. (1987). Intergenerational caregiving: Adult care givers and their aging parents. Advanced Nursing Science, 9, 20-31.

Boyd, J., & Weissman, M. (1981). Epidemiology of affective disorders. Archives of General Psychiatry, 38, 1039-1046.

Brackney, B. E., & Westman, A. S. (1992). Relationships among hope, psychological development, and locus of control. Psychological Reports, 70, 864-866.

Brody, E. M. (1981). Women in the middle and family help to older people. The Gerontologist, 21, 471-480.

Brody, E. (1989). The family at risk. In E. Light & B. Lebowitz (Eds.), Alzheimer's disease treatment and family stress: Directions for research (pp. 2-49). Washington, D.C.: U.S. Department of Health and Human Services.

Browning, F. C. (1993). Emotional and psychological vulnerability and the coping processes of male caregivers with cancer diagnosed partners. Unpublished pilot study.

Cantor, M. H. (1983). Strain among caregivers: A study of experience in the United States. The Gerontologist, 23, 597-604.

Cohen, D., & Eisdorfer, C. (1988). Depression in family members caring for a relative with Alzheimer's disease. Journal of the American Geriatrics Society, 36, 885-889.

Cohen, S., & Syme, S. L. (1985). Issues in the study and application of social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 48-68). Orlando, FL: Academic Press.

Compass, B. E., Barnez, G. A., Malcarne, V., & Worsham, N. (1991). Perceived control and coping with stress: A developmental perspective. Journal of Social Issues, 47(4), 23-34.

Corbin, J. M., & Strauss, A. (1988). Unending work and care managing chronic illness at home. San Francisco, CA: Jossey-Bass.

Davis, G. (1985). Developmental patterns of stress and coping: Middle age and older adulthood. (Doctoral dissertation, University of Washington, 1985). Dissertation Abstracts International, 53 (6), DA8540589.

DeLongis, A., & O'Brien, T. (1990). An interpersonal framework for stress and coping: An application to the families of Alzheimer's patients. In M. Stephens, J. Crowther, S. Hobfoll, & D. Tennenbaum (Eds.), Stress and coping in later-life families. (pp. 221-239). New York, NY: Hemisphere.

Ersek, M. (1992). The process of maintaining hope in adults undergoing bone marrow transplantation for leukemia. Oncology Nursing Forum, 19 (6), 883-889.

Fife, B.L., Kennedy, V.N., & Robinson, L. (1994). Gender and adjustment to cancer: Clinical implications. Journal of Psychosocial Oncology, 12 (1/2), 1-21.

Filene, P. G. (1975). Him, her, self: Sex-roles in modern America. New York: Harcourt Brace Jovanovich.

Finney, J., & Moos, R. (1991). The long-term course of treated alcoholism: Mortality, relapse, and remission rates and comparisons with community controls. Journal of Studies on Alcohol, 52, 44-54.

Finney, J., Moos, R., & Brennan, P. (1991). The Drinking Problems Index: A measure to assess alcohol-related problems among older adults. Journal of Substance Abuse, 3, 431-440.

Fiore, J., Becker, J., & Coppel, D. (1983). Social network interactions: A buffer or a stress? American Journal of Community Psychology, 11, 423-439.

Fitzgerald, L. F., & Cherpas, C. C. (1985). On the reciprocal relationship between gender and occupation: Rethinking assumptions concerning masculine career development. Journal of Vocational Behavior, 27, 109-122.

Folkman, S., & Lazarus, R. (1980). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21, 219-239.

Folkman, S., & Lazarus, R. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, 48, 150-170.

Fondacaro, M., & Moos, R. (1987). Social support and coping: A longitudinal analysis. American Journal of Community Psychology, 15, 653-673.

Franklin, R. D. (1963). Youth's expectancies about internal versus external control of reinforcement related to N variables. (Doctoral dissertation, Purdue University, 1963). Dissertation Abstract International, 48 (3), DA 6310895.

George, L., & Gwyther, L. (1986). Caregiver well-being: A multidimensional examination of family caregivers of demented adults. The Gerontologist, 26(3), 253-259.

Germino, B. (1991). Cancer and the family. In S. B. Baird, R. McCorkle & M. Grant (Eds.), Cancer Nursing: A comprehensive textbook (pp. 38-44). Philadelphia, PA: W. B. Saunders.

Giacquinta, B. (1977). Helping families face the crisis of cancer. American Journal of Nursing, 77, 1585-1588.

Gibeau, J., & Anastas, J. (1989). Breadwinners and caregivers: Interviews with working women. Journal of Gerontological Social Work, 14(½), 19-40.

Goode, W. J. (1982). Why men resist. In B. Thorne (Ed.), Rethinking the family (pp. 54-60). New York: Longman.

Graham, H. (1983). Caring: A labour of love. In J. Finch & D. Groves (Eds.), A labour of love: Women, work and caring (pp. 105-115). London: Routledge and Kegan Paul.

Gregory, D. M., Peters, N., & Cameron, C. F. (1990). Elderly male spouses as caregivers. Journal of Gerontological Nursing, 16(3), 20-23.

Haley, W., Levine, E., Brown, L., Berry, J., & Hughes, G. (1987). Psychological, social, and health consequences of caring for a relative with senile dementia. Journal of the American Geriatrics Society, 35(5), 405-411.

Haley, W., Levine, E., Brown, L., & Bartolucci, A. (1987). Stress, appraisal, coping, and social support as predictors of adaptational outcomes among dementia caregivers. Psychology and Aging, 2(4), 323-340.

Hantover, J. P. (1978). The boy scouts and the validation of masculinity. Journal of Social Issues, 34, 184-195.

Harrison, J. (1978). Warning: The male sex-role may be dangerous to your health. Journal of Social Issues, 34(1), 65-85.

Harvis, K., & Rabins, P. (1989). Dementia: Helping family caregivers cope. Journal of Psychosocial Nursing, 27(5), 7-12.

Herron, R. (1992, Winter). Unbinding male dilemmas. Dialogue, p.1.

Hershenson, D. B., Power, P. W., & Seligman, L. (1989). Mental health counseling theory: Present status and future prospects. Journal of Mental Health Counseling, 11, 44-69.

Holahan, C. J., & Moos, R. (1987). The personal and contextual determinants of coping strategies. Journal of Personality and Social Psychology, 52, 946-955.

Holland, J. C. B. (1982). Psychological aspects of cancer. In J. F. Holland & E. Frei III (Eds.), Cancer medicine, 2nd ed. (pp. 1175-1203). Philadelphia; Lea & Febiger,

Holland, J. C. (1981). Why patients seek unproven cancer remedies: A psychological perspective. Cancer Annals, 30, 10-14.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Horowitz, A. (1985a). Sons and daughters as caregivers to older parents: Differences in role performance and consequences. The Gerontologist, 25, 612-617.

Horowitz, A. (1985b). Family caregiving to the frail elderly. In M. P. Lawton & G. Maddox (Eds.) , The Annual Review of Gerontology and Geriatrics, 5, (pp. 194-246). New York: Springer.

Horowitz, A., & Shindleman, L. W. (1983). Reciprocity and affection: Past influences on current caregiving. Journal of Gerontological Social Work, 5, 5-20.

Hoyert, D. L., & Seltzer, M. M. (1992). Factors related to the well-being and life activities of family caregivers. Family Relations, 41, 74-81.

Jassak, P. F. (1992). Families: An essential element in the care of the patient with cancer. Oncology Nursing Forum, 19(6), 871-876.

Joe, V. C. (1971). Review the internal-external control construct as a personality variable. Psychological Reports, 28, 619-640.

Johnson, C. (1985). The impact of illness on late-life marriages. Journal of Marriage and the Family, 47, 156-217.

Kaye, L. W., & Applegate, J. S. (1990a). Men as caregivers to the elderly. Lexington, MA: Lexington.

Kaye, L. W., & Applegate, J. S. (1990b). Men as elder caregivers: A response to changing families. American Journal of Orthopsychiatry, 60(1), 86-95.

Kelly, K. R., & Hall, A. S. (1992). Toward a developmental model for counseling men. Journal of Mental Health Counseling, 14(3), 257-273.

Kramer, B. J. (1992). Stress and coping of spousal caregivers to older adults with dementia: An interpersonal framework (Doctoral dissertation, University of Washington, 1992). Dissertation Abstracts International, 53 (6), DA 9230386.

Krause, N. (1987). Understanding the stress process: Linking social support with locus of control beliefs. Journal of Gerontology, 42, 589-593.

Larson, D. G. (1992). The challenge of caring in oncology nursing. Oncology Nursing Forum, 19 (6), 857-861.

Lazarus, R., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lazarus, R. (1966). Psychological stress and the coping process. New York, NY: McGraw-Hill.

Lazarus, R., & Launier, R. (1978). Stress-related transactions between person and environment. In L. Pervin & M. Lewis (Eds.), Perspectives in Interactional Psychology (pp. 101-115). New York: Plenum.

Lee, C. (1991, April 18). Men's movement gathers momentum. Guidepost, p. 8.

Lesko, G. E. (1987). Psychosocial antecedents of depression in alcoholics: A structural equation model (Doctoral dissertation, Department of Psychology, New York University, New York). Dissertation Abstracts International, 48, 1504B.

Lester, D., & Pitts, J. (1990). Depression and locus of control in police officers. Psychological Reports, 67, 826.

Lewandowski, W. (1988). The family with cancer. Cancer Nursing, 11, 313-321.

Lewin, T. (1991, February 4). Changing View of Cancer: Something to live with. The New York Times, Section A8, p.1.

Lewis, R. A. (1986). Men's changing roles in marriage and the family. Marriage and Family Review, 9, (3/4), 1-10.

Lewis, F. M. (1990). Strengthening family supports, cancer and the family. Cancer, 65, 752-759.

Lewis, F. M., Ellison, E. S., & Woods, N. F. (1985). The impact of breast cancer on the family. Seminar on Oncology Nursing, 1, 206-213.

Lin, N. (1976). Foundations of social research. New York, NY: McGraw Hill.

Long, C. (1987). The relationship among family caregivers' stress, appraisal, and ways of coping with elderly parent care strains. (Doctoral dissertation, The Catholic University of America, 1987) Dissertation Abstracts International, 48 (7), DA8730884.

Lovejoy, N. C. (1986). Family responses to cancer hospitalization. Oncology Nursing Forum, 13 (2), 33-43.

Lowenthal, M. F., Thurnher, M., & Chiriboga, D. (1975). Four stages of life: A comparative study of women and men facing transitions. San Francisco: Jossey-Bass.

Martin, P., & Lee, H. S. (1992). Indicators of active and passive coping in myocardial infarction victims. Journal of Gerontology: Psychological Sciences, 47, 238-241.

Meinecke, C. E. (1981). Socialized to die younger? Hypermasculinity and men's health. Personnel and Guidance Journal, 12, 241-245.

Minuchin, S. (1974). Families and family therapy. Cambridge, MA: Harvard University Press.

Moos, R., & Billings, A. (1982). Children of alcoholics during the recovery process: Alcoholic and matched control families. Addictive Behaviors, 7, 155-163.

Moos, R., & Moos, B. (1981). Family environment scale manual. Palo Alto, CA: Consulting Psychologists Press.

Moos, R., Finney, J., & Gamble, W. (1982). The process of recovery from alcoholism: II. Comparing spouses of alcoholic patients and spouses of matched community controls. Journal of Studies on Alcohol, 43, 888-909.

Moos, R., Finney, J., & Cronkite, R. (1990). Alcoholism treatment: Context, process, and outcome. New York: Oxford University Press.

Moos, R. H. (1993). CRI - Adult form professional manual. Odessa, FL: Psychological Assessment Resources.

Moritz, D., Kasl, S., & Berkman, L. (1989). The health impact of living with a cognitively impaired elderly spouse: Depressive symptoms and social functioning. Journal of Gerontology: Social Sciences, 44, S17-27.

Morris, L., Morris, R., & Britton, P. (1988). The relationship between marital intimacy, perceived strain and depression in spouse caregivers of dementia suffers. British Journal of Medical Psychology, 61, 231-236.

Motenko, A. K. (1988). Respite care and pride in caregiving: The experience of six older men caring for their disabled wives. In S. Reinharz & G. D. Rowles (Eds.), Qualitative Gerontology (pp. 104-127). New York: Springer.

Motenko, A. K. (1989). The frustrations, gratifications, and well-being of dementia caregivers. The Gerontologist, 29, 166-172.

Murphy, L. B., & Moriarty, A. E. (1976). Vulnerability, coping, and growth: From infancy to adolescence. New Haven: Yale University Press.

Murphy, L. (1974). Coping, vulnerability, and resilience in childhood. In G. Coelho, D. Hamburg, & J. Adams (Eds.), Coping and adaption (pp. 58-95). New York, NY: Basic.

Nace, E. V., Davis, C. W., & Gaspari, J. P. (1991). Axis II co-morbidity in substance abusers. American Journal of Psychiatry, 148, 118-120.

Namir, S., Wolcott, D. L., Fawzy, F. I., & Alumbaugh, M. J. (1987). Coping with AIDS: Psychological and health implications. Journal of Applied Social Psychology, 17, 309-328.

Nicholson, W. D., & Long, B. C. (1990). Self-esteem, social support, internalized homophobia, and coping strategies of HIV + gay men. Journal of Consulting and Clinical Psychology, 58 (6), 873-876.

Noelker, L., & Wallace, R. (1985). The organization of family care for impaired elderly. Journal of Family Issues, 6 (1), 23-44.

Northouse, L. L., & Swain, M. A. (1987). Adjustment of patients and husbands to the initial impact of breast cancer. Nursing Research, 36 (4), 221-225.

Northouse, L. L. (1988). Family issues in cancer care. Advances Psychosomatic Medicine, 18, 82-101.

Northouse, L. L. (1984). The impact of cancer on the family: An overview. International Journal Psychiatry Medicine, 14, 215-242.

O'Neil, J. M., Helms, B., Gable, R., David, L., & Wrightsman, L. (1986). Gender-role conflict scale: College men's fear of femininity. Sex-roles, 14, 335-350.

O'Neil, J. M. (1981). Patterns of gender role conflict and strain: Sexism and fear of femininity in men's lives. Personnel and Guidance Journal, 60, 203-210.

O'Neil, J. M., & Egan, J. (1992). Men's gender role transitions over the life span: Transformation and fears of femininity. Journal of Mental Health Counseling, 14 (3), 305-324.

Oberst, M. T., & Scott, D. W. (1988). Post discharge distress in surgically treated cancer patients and their spouses. Research in Nursing & Health, 11, 223-233.

Olson, D.H., Portner, J., & Lavee, Y. (1985). FACES III. St. Paul, MN: Family Social Science, University of Minnesota.

Ormel, J., & Schaufeli, W. B. (1991). Stability and change in psychological distress and their relationship with self-esteem and locus of control: A dynamic equilibrium model: Journal of Personality and Social Psychology, 60 (2), 288-299.

Parkes, K. R. (1984). Locus of control, cognitive appraisal, and coping in stressful episodes. Journal of Personality and Social Psychology, 46, 655-668.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. Journal of Health and Social Behavior, 19, 2-21.

Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. The Gerontologist, 30 (5), 583-594.

Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pett, M., Caserta, M., Hutton, A., & Lund, D. (1988). Intergenerational conflict: Middle-aged women caring for demented older relatives. American Journal of Orthopsychiatry, 58, (3), 405-417.

Pleck, J. H., & Brannon, R. (1978). Male roles and the male experience: Introduction. Journal of Social Issues, 34 (1), 1-3.

Pratt, C., Schmall, V., Wright, S., & Cleland, M. (1985). Burden and coping strategies of caregivers to Alzheimer's patients. Family Relations, 34, 27-33.

Pruchno, R., & Resch, N. (1989). Mental health of caregiving spouses: Coping as mediator, moderator, or main effect? Psychology and Aging, 4 (4), 454-463.

Quayhagen, M., & Quayhagen, M. (1988). Alzheimer's stress: Coping with the caregiving role. The Gerontologist, 28 (3), 391-396.

Rabins, P., Mace, N., & Lucas, M. (1982). The impact of dementia on the family. Journal of the American Medical Association, 248 (3), 333-335.

Rabins, P. V., Fitting, M. D., Eastham, J. & Zabora, J. (1990). Emotional adaption over time in care-givers for chronically ill elderly people. Age and Ageing, 19, 185-190.

Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.

Ramsey, N. (1990). Caregiver coping with dementia: Relationships among patient characteristics, caregiver coping styles, and consequences of caregiving. (Doctoral dissertation, University of Washington, 1990). Dissertation Abstract International, 42, (4), DA9020283.

Rankin, E. D., Haut, M. W., & Keefover, R. W. (1992). Clinical assessment of family caregivers in dementia. The Gerontologist, 32 (6), 813-821.

Roberts, R., & Vernon, S. (1983). The Center for Epidemiological Studies Depression Scale: Its use in a community sample. American Journal of Psychiatry, 140, 41.

Roseberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. American Psychologist, 41, 813-819.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological monographs: General and applied, 80, (Whole No. 609).

Schaefer, J., & Moos, R. (1992). Life crises and personal growth. In B. N. Carpenter (Ed.), Personal coping: Theory, research, and applications, (pp. 150-170). New York: Praeger.

Schmitt, J. P., & Kurdek, L. A. (1984). Correlates of social anxiety in college students and homosexuals. Journal of Personality Assessment, 48 (4), 403-409.

Schulz, R., & Williamson, G. M. (1991). A two-year longitudinal study of depression among Alzheimer's caregivers. Psychology and Aging, 6 (4), 569-578.

Skaff, M. M., & Pearlin, L. I. (1992). Caregiving: Role engulfment and the loss of self. The Gerontologist, 32 (5), 656-664.

Skinner, H., Steinhauer, P., & Santa-Barbara, J. (1983). The family assessment measure. Canadian Journal of Community Mental Health, 2, 91-105.

Spence, J., & Helmreich, R. (1978). Masculinity and Femininity: Their psychological dimensions, correlates, and antecedents. Austin, TX: University of Texas Press.

Staudacher, C. (1991). Men and grief. Oakland, CA: New Harbinger.

Steeves, R. H. (1992). Patients who have undergone bone marrow transplantation: Their quest for meaning. Oncology Nursing Forum, 19, (6), 899-905.

Stoller, E., & Pugliesi, K. (1989). Other roles of caregivers: Competing responsibilities or supportive resources. Journal of Gerontology, 44, 231-238.

Swindle R., Cronkite, R., & Moos, R. (1989). Life stressors, social resources, coping, and the 4-year course of unipolar depression. Journal of Abnormal Psychology, 98, 468-477.

Tabachnick, B.G., & Fidell, L.S. (1983). Using multivariate statistics. (2nd ed.) New York, NY: Harper & Row.

Thorne, S. (1985). The family cancer experience. Cancer Nursing, 8, 285-291.

Tringali, C. A. (1986). The needs of family members of cancer patients. Oncology Nursing Forum, 13 (4), 65-70.

Turner, R. J. (1981). Social support as a contingency in psychological well-being. Journal of Health and Social Behavior, 22, 357-367.

Vinick, B. H. (1984). Elderly men as caregivers of wives. Journal of Geriatric Psychiatry, 17, 61-68.

Vogel, W., Raymond, S., & Lazarus, R. (1959). Intrinsic motivation and psychological stress. Journal of Abnormal and Social Psychology, 58, 225-233.

Weisman, A. D. (1976). Early diagnosis of the vulnerability in cancer patients. The American Journal of the Medical Sciences, 271, 187-196.

Weisman, A. D., & Worden, J. W. (1976). The existential plight in cancer: Significance of the first 100 days. International Journal of Psychiatry in Medicine, 7, 1-15.

Weisman, A. D. (1984). The coping capacity. New York: Human Sciences.

Weisman, A. D. (1979). Coping with cancer. New York: McGraw-Hill.

Weisman, A. D., & Worden, J. W. (1977). Coping with vulnerability in cancer patients: A Research Report. Cambridge, MA: Shea Brothers.

Weiss, H. M. (1978). Social learning of work values in organizations. Journal of Applied Psychology, 63 (6), 711-718.

Williamson, G., & Schulz, R. (1990). Relationship orientation, quality of prior relationship, and distress among caregivers of Alzheimer's patients. Psychology and Aging, 5 (4), 502-509.

Zarit, S., Todd, P. A., & Zarit, J. M. (1986). Subjective burden of husbands and wives as caregivers: A longitudinal study. The Gerontologist, 26, 260-266.

Zubin, J., & Spring, B. (1977). Vulnerability: A new view of schizophrenia. Journal of Abnormal Psychology, 86, 103-126.

Appendix A:

Demographic Information Questionnaire

First, I would like to begin by asking you a few questions about yourself and your spouse.

A-1. What is your age? _______

A-2. What was the last grade you completed in school?

	(Circle One)
No Schooling	1
Elementary (K-6)	2
Some High School (7-11)	3
High School Graduate	4
Post High School College or Training	5
College Graduate	6
Graduate/Professional School	7

A-3. Are you currently:

Employed, Full-time	1
Employed, Part-time	2
Retired	3

A-4a. What is/was your occupation? ______________________________

A-4b. Think about all your total annual family income from Social Security, retirement pension, current employment, dividends and rental income. Which of the following categories best describes your family's average income for the last tax year?

Less than $10,000	1
$10,000 to $19,999	2
$20,000 to $29,999	3
$30,000 to $39,999	4
$40,000 to $50,000	5
More than $50,000	6

A-5. What is your race?

White	1
African-American	2
Asian	3
Hispanic	4
Pacific Islander	5
Native American	6
Don't Know	7

A-6. How religiously active are you? Attend religious activity:

Frequently (Three or more times per month)	1
Moderately (One to two times per month)	2
Infrequently (Less than four times per year)	3

A-7. How many years have you been married to your present spouse?

____

A7a. How many birth children do you and your present spouse have?
A7b. They are _____ children (0-12)
_____ teens (13-18)
_____ adults (19-∞)

A-7c. Are there any stepchildren or adopted children? What are their ages?

Stepchildren ____________
Adopted ____________
None ____________

A-8. Is this your first marriage?

Yes	1
No	2

IF YES SKIP TO A-10.

A-9a. **If no**, how many times have you been married before? _________

A-9b. How many years were you married to your last wife? __________

A-10. What is your wife's age?______

A-11. What was the last grade your wife completed in school?

	(Circle One)
No Schooling	1
Elementary (K-6)	2
Some High School (7-11)	3
High School Graduate	4
Post High School College or Training	5
College Graduate	6
Graduate/Professional School	7

A-12. Is she currently:

Employed, Full-time	1
Employed, Part-time	2
Retired	3

A-12a. What is/was her occupation? ______________________________

A-13. What is her race?

White	1
African-America	2
Asian	3
Hispanic	4
Pacific Islander	5
Native American	6
Don't Know	7

A-14. How religiously active is your wife? Attend religious activity:

Frequently (Three or more times per month)	1
Moderately (One to two times per month)	2
Infrequently (Less than four times per year)	3

A-15. Is this your wife's first marriage?

Yes	1
No	2

IF YES, SKIP TO A-17

A-16a. **If no**, how many times has she been married before? ____

A-16b. How many years was she married to her last husband? ____

A-17. How long ago did you first learn of your wife's cancer diagnosis? (RECORD IN THE NUMBER OF MONTHS)

____

A-18. Were you ever in counseling (individual or group) or psychotherapy prior to your wife's diagnosis of cancer?

Yes	1
No	2

A-18a. If yes to question A-18, what was the frequency?

Frequently (weekly)	1
Moderately (monthly)	2
Infrequently (less than six times per year)	3

A-19. Have you sought counseling (individual or group) or psychotherapy since learning of your wife's diagnosis of cancer?

Yes	1
No	2

A-19a. If yes to question A-19, what has been the frequency of use?

Frequently (weekly)	1
Moderately (monthly)	2
Infrequently (less than six times per year)	3

A-19b. If you have not been involved in counseling or psychotherapy, do you think it would be helpful?

Yes	1
No	2

A-20. Have you utilized the services of a support group since learning of your wife's diagnosis of cancer?

Frequently (weekly)	1
Moderately (monthly)	2
Infrequently (less than six times per year)	3

A-21. Check any of the following that you use:

	Frequency		
	Daily	Weekly	Monthly
Alcohol	___	___	___
Recreational drugs (e.g., marijuana)	___	___	___
Medication for emotional, psychological, or mental purposes	___	___	___

A-22. What type of cancer does your wife have? ____________

A-23. What type of treatment has your wife previously received? (Please check all that apply)

____________	____________	____________	____________	____________
Chemotherapy	Radiation	Surgical	Other	None

A-23a. What type of treatment is she presently receiving? (Please check all that apply)

____________	____________	____________	____________	____________
Chemotherapy	Radiation	Surgical	Other	None

A-24. Please circle the number that describes your spouse's <u>current</u> activity level.

Normal activity	0
Some symptoms, but can walk and does not spend any extra time in bed	1
Less than 50% of the daytime in bed	2
Greater than 50% of the daytime in bed	3
Unable to get out of bed	4

A-25. Have you previously experienced cancer?

Yes	1
No	2

A-25a. If yes to A-24, who had the cancer? (Please circle all that applies.)

Self	1
Previous Spouse	2
Child	3

Parent	4
Brother/sister	5
Friend	6

A-26. Do you currently have cancer?

Yes	1
No	2

Since I have been asking all of these questions, I would like to offer you the opportunity to tell me what you think is most important in helping you cope with caring for your wife.

____

____

____

____

What would you recommend to the government and healthcare providers about things they can do to help partners cope with a cancer diagnosed spouse?

____

____

____

____

Would you like to receive a summary of the results of this study?

YES NO

If so, please write your name and address below. It will be detached from this part of the questionnaire to protect your anonymity. A summary of the findings will be sent to you when the study is completed.

Name: ______________________________

Address: ______________________________

____

____

Appendix B:

Rosenberg Self-Esteem Scale

Please read the following statements and circle one of four responses for each statement (that is, Strongly Agree (SA), Agree (A), Disagree (D), or Strongly Disagree (SD).

B-1.	On the whole, I am satisfied with myself.	SA	A	D	SD
B-2.	At times I am no good at all.	SA	A	D	SD
B-3.	I feel that I have a good number of qualities	SA	A	D	SD
B-4.	I am able to do most things as well as most other people	SA	A	D	SD
B-5.	I feel I do not have much to be proud of	SA	A	D	SD
B-6.	I certainly feel useless at times	SA	A	D	SD
B-7.	I feel that I am a person of worth, at least on an equal plane with others.	SA	A	D	SD
B-8.	I wish I could have more respect for myself.	SA	A	D	SD
B-9.	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
B-10.	I take a positive attitude toward myself.	SA	A	D	SD

Appendix C:

Rotter's Internal-External (I-E) Scale

Please read the following 29 items and circle one item statement for each pair that best describes your belief.

C-1. a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy on them.

C-2. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.

C-3. a. One of the major reasons we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.

C-4. a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

C-5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

C-6. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

C-7. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.

C-8. a. Heredity plays the major role in one's determining personality.
b. It is one's experiences in life which determine what they're like.

C-9. a. I have found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

C-10. a. In the case of the well prepared student there is rarely, if ever, such a thing as an unfair test.
b. Many times exam questions seem to be so unrelated to course work that studying is really useless.

C-11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.

C-12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.

C-13. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

C-14. a. There are certain people who are just no good.
b. There is some good in everybody.

C-15. a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.

C-16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

C-17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
b. By taking an active part in political and social affairs the people can control world events.

C-18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck."

C-19. a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.

C-20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.

C-21. a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

C-22. a. With enough effort we can wipe out political corruption.
  b. It is difficult for people to have much control over the things politicians do in office.

C-23. a. Sometimes I can't understand how teachers arrive at the grades they give.
  b. There is a direct connection between how hard I study and the grades I get.

C-24. a. A good leader expects people to decide for themselves what they should do.
  b. A good leader makes it clear to everybody what their jobs are.

C-25. a. Many times I feel that I have little influence over the things that happen to me.
  b. It is impossible for me to believe that chance or luck plays an important role in my life.

C-26. a. People are lonely because they don't try to be friendly.
  b. There is not much use in trying too hard to please people, if they like you, they like you.

C-27. a. There is too much emphasis on athletics in high school.
  b. Team sports are an excellent way to build character.

C-28. a. What happens to me is my own doing.
  b. Sometimes I fell that I don't have enough control over the direction my life is taking.

C-29. a. Most of the time I can't understand why politicians behave the way they do.
  b. In the long run people are responsible for bad government on a national as well as local level.

Appendix D:

Sex-role Index (SRI)

I would like to know how you perceive yourself in terms of the following 10 adjectives. Please place your rating to the right of each adjective.

Rating Scale:

1 = Rarely or never
2 = Sometimes
3 = Often
4 = Usually
5 = Almost always

Adjectives

D-1. Aggressive _____
D-2. Loving _____
D-3. Analytical _____
D-4. Compassionate _____
D-5. Forceful _____
D-6. Yielding _____
D-7. Competitive _____
D-8. Gentle _____
D-9. Self Sufficient _____
D-10. Warm _____

Appendix E:

Quality of Premorbid Marital Relationship Inventory

I would now like to ask you about your relationship with your wife before the illness began. Please think about your relationship with her before the diagnosis of cancer. As you read each statement, I would like you to decide if you moderately or strongly agree or disagree. Circle your final decision about each question. Recalling your past relationship with your wife may be difficult, however, it is important to be as honest and accurate as possible.

		DISAGREE		AGREE	
		Strongly	Moderately	Moderately	Strongly
E-1.	I knew what my wife meant when she said something.	1	2	3	4
E-2.	I could tell when she was upset.	1	2	3	4
E-3.	My spouse and I were not close to each other.	1	2	3	4
E-4.	If my spouse was angry at me, I heard about it from someone else.	1	2	3	4
E-5.	My spouse got too involved in my affairs.	1	2	3	4
E-6.	My spouse took what I said the wrong way.	1	2	3	4
E-7.	When I was upset, my spouse usually knew why.	1	2	3	4
E-8.	When I was upset, I knew my spouse really cared.	1	2	3	4
E-9.	When my spouse was upset, she tried to get me to take sides.	1	2	3	4
E-10.	My spouse let me know how she felt about me.	1	2	3	4
E-11.	My spouse still liked me even when we argued.	1	2	3	4
E-12.	My spouse was available when I wanted to talk with her.	1	2	3	4
E-13	When my spouse got angry with me she stayed upset for days.	1	2	3	4
E-14	Even if my spouse disagreed, she still listened to my point of view.	1	2	3	4
E-15	My spouse really trusted me.	1	2	3	4
E-16	I often didn't know whether to believe what my spouse said.	1	2	3	4
E-17	My spouse worried too much about me.	1	2	3	4

Appendix F:

Quality of Marital Relationship Since Diagnosis Inventory

Please think about your relationship with your wife <u>now</u> <u>since</u> the diagnosis of cancer. As you read each statement, I would like you to decide if you moderately or strongly agree or disagree. Circle your final decision about each question.

		DISAGREE		AGREE	
		Strongly	Moderately	Moderately	Strongly
E-1.	I knew what my wife meant when she said something.	1	2	3	4
E-2.	I could tell when she was upset.	1	2	3	4
E-3.	My spouse and I were not close to each other.	1	2	3	4
E-4.	If my spouse was angry at me, I heard about it from someone else.	1	2	3	4
E-5.	My spouse got too involved in my affairs.	1	2	3	4
E-6.	My spouse took what I said the wrong way.	1	2	3	4
E-7.	When I was upset, my spouse usually knew why.	1	2	3	4
E-8.	When I was upset, I knew my spouse really cared.	1	2	3	4
E-9.	When my spouse was upset, she tried to get me to take sides.	1	2	3	4
E-10.	My spouse let me know how she felt about me.	1	2	3	4
E-11.	My spouse still liked me even when we argued.	1	2	3	4
E-12.	My spouse was available when I wanted to talk with her.	1	2	3	4
E-13	When my spouse got angry with me she stayed upset for days.	1	2	3	4
E-14	Even if my spouse disagreed, she still listened to my point of view.	1	2	3	4
E-15	My spouse really trusted me.	1	2	3	4
E-16	I often didn't know whether to believe what my spouse said.	1	2	3	4
E-17	My spouse worried too much about me.	1	2	3	4

Appendix G:

Center for Epidemiologic Studies - Depression Scale (CES-D)

I would now like to ask you to indicate how often during the past week you have experienced each of the following feelings or thoughts. Your choices are as follows:

FREQUENCY RATING

0 = less than one day
1 = 1 to 2 days
2 = 3 to 4 days
3 = 5 to 7 days

During the past week:

F-1.	I was bothered by things that usually don't bother me.	0	1	2	3
F-2.	I felt that everything I did was an effort.	0	1	2	3
F-3.	I felt I was just as good as other people.	0	1	2	3
F-4.	I had trouble keeping my mind on what I was doing.	0	1	2	3
F-5.	I felt sad.	0	1	2	3
F-6.	I felt fearful.	0	1	2	3
F-7.	I felt lonely.	0	1	2	3
F-8.	I had crying spells.	0	1	2	3
F-9.	I have been sleeping restlessly.	0	1	2	3
F-10.	I have talked less than usual.	0	1	2	3
F-11.	I have enjoyed life.	0	1	2	3
F-12.	I felt that I could not shake off the blues even with the help of my family or friends.	0	1	2	3
F-13.	I have had thoughts that my life has been a failure.	0	1	2	3
F-14.	I have felt happy.	0	1	2	3

F-15. I could not get "going". 0 1 2 3

F-16. I felt hopeful about the future. 0 1 2 3

F-17. I felt people were unfriendly. 0 1 2 3

F-18. I did not feel like eating; I had a poor appetite. 0 1 2 3

F-19. I felt depressed. 0 1 2 3

F-20. I felt that people disliked me. 0 1 2 3

Appendix H:

Barriers to Caregiving Index

Based upon your personal experience since learning of your spouse's cancer diagnosis, please indicate the extent to which the following factors have affected your caregiving actions. Please use the following rating scale:

Rating Scale:
0 = not at all
1 = minimally
2 = to same degree
3 = very much so

G-1. The requirements of your job ______

G-2. Family obligations ______

G-3. The nature of your social life ______

G-4. Your opinion as to what appropriate behavior for men should be _____

G-5. The opinion of others as to what appropriate behavior for men should be _____

G-6. Quality of your past relations with your relative/friend _____

G-7. The general stress associated with caregiving _____

G-8. The distance you live from the relative/friend ______

G-9. The ability of other relative and friends who can provide help____

G-10. Your general health ______

G-11. The physical health of your relative/friend ______

G-12. The mental or emotional health of your relative/friend _____

G-13. The general personality of your friend/relative ______

G-14. The sex of your friend/relative ______

G-15. Your family's tradition of helping others _______

G-16. The availability of community services for your relative/friend _____

Appendix I:

Coping Responses Inventory - Adult (CRI-A)

CRI-ADULT FORM

Item Booklet

Directions:

On the accompanying answer sheet, please fill in your name, today's date, and your sex, age, marital status, ethnic group, and education (number of years completed). Please mark all your answers on the answer sheet. **Do not write in this booklet.**

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PAR **Psychological Assessment Resources, Inc.**/P.O. Box 998/Odessa, FL 33556

Part 1

This booklet contains questions about how you manage important problems that come up in your life. Please think about the most important problem or stressful situation you have experienced **in the last 12 months** (for example, troubles with a relative or friend, the illness or death of a relative or friend, an accident or illness, financial or work problems). Briefly describe the problem in the space provided in Part 1 of the answer sheet. If you have not experienced a major problem, list a minor problem that you have had to deal with. Then answer each of the 10 questions about the problem or situation (listed below and again on the answer sheet) by circling the appropriate response:

Circle"**DN**" if your response is **D**EFINITELY **N**O.	[✓ DN] MN MY DY
Circle "**MN**" if your response is **M**AINLY **N**O.	DN [✓ MN] MY DY
Circle "**MY**" if your response is **M**AINLY **Y**ES.	DN MN [✓ MY] DY
Circle "**DY**" if your response is **D**EFINITELY **Y**ES.	DN MN MY [✓ DY]

1. Have you ever faced a problem like this before?
2. Did you know this problem was going to occur?
3. Did you have enough time to get ready to handle this problem?
4. When this problem occurred, did you think of it as a threat?
5. When this problem occurred, did you think of it as a challenge?
6. Was this problem caused by something you did?
7. Was this problem caused by something someone else did?
8. Did anything good come out of dealing with this problem?
9. Has this problem or situation been resolved?
10. If the problem has been worked out, did it turn out all right for you?

Part 2

Read each item carefully and indicate how often you engaged in that behavior in connection with the problem you described in Part 1. Circle the appropriate response on the answer sheet:

Circle "**N**" if your response is NO, **N**ot at all.	[✓ N] O S F
Circle "**O**" if your response is YES, **O**nce or Twice.	N [✓ O] S F
Circle "**S**" if your response is YES, **S**ometimes.	N O [✓ S] F
Circle "**F**" if your response is YES, **F**airly often.	N O S [✓ F]

There are 48 items in Part 2. Remember to mark all your answers on the answer sheet. Please answer each item as accurately as you can. All your answers are strictly confidential. If you do not wish to answer an item, please circle the number of that item on the answer sheet to indicate that you have decided to skip it. If an item does not apply to you, please write **NA** (Not Applicable) in the box to the right of the number for that item. If you wish to change an answer, make an **X** through your original answer and circle the new answer. Note that answers are numbered across in rows on Part 2 of the answer sheet.

1. Did you think of different ways to deal with the problem?
2. Did you tell yourself things to make yourself feel better?
3. Did you talk with your spouse or other relative about the problem?
4. Did you make a plan of action and follow it?
5. Did you try to forget the whole thing?
6. Did you feel that time would make a difference—that the only thing to do was wait?
7. Did you try to help others deal with a similar problem?
8. Did you take it out on other people when you felt angry or depressed?

9. Did you try to step back from the situation and be more objective?
10. Did you remind yourself how much worse things could be?
11. Did you talk with a friend about the problem?
12. Did you know what had to be done and try hard to make things work?
13. Did you try not to think about the problem?
14. Did you realize that you had no control over the problem?
15. Did you get involved in new activities?
16. Did you take a chance and do something risky?

17. Did you go over in your mind what you would say or do?
18. Did you try to see the good side of the situation?
19. Did you talk with a professional person (e.g., doctor, lawyer, clergy)?
20. Did you decide what you wanted and try hard to get it?

21. Did you daydream or imagine a better time or place than the one you were in?
22. Did you think that the outcome would be decided by fate?
23. Did you try to make new friends?
24. Did you keep away from people in general?

25. Did you try to anticipate how things would turn out?
26. Did you think about how you were much better off than other people with similar problems?
27. Did you seek help from persons or groups with the same type of problem?
28. Did you try at least two different ways to solve the problem?
29. Did you try to put off thinking about the situation, even though you knew you would have to at some point?
30. Did you accept it; nothing could be done?
31. Did you read more often as a source of enjoyment?
32. Did you yell or shout to let off steam?

33. Did you try to find some personal meaning in the situation?
34. Did you try to tell yourself that things would get better?
35. Did you try to find out more about the situation?
36. Did you try to learn to do more things on your own?
37. Did you wish the problem would go away or somehow be over with?
38. Did you expect the worst possible outcome?
39. Did you spend more time in recreational activities?
40. Did you cry to let your feelings out?

41. Did you try to anticipate the new demands that would be placed on you?
42. Did you think about how this event could change your life in a positive way?
43. Did you pray for guidance and/or strength?
44. Did you take things a day at a time, one step at a time?
45. Did you try to deny how serious the problem really was?
46. Did you lose hope that things would ever be the same?
47. Did you turn to work or other activities to help you manage things?
48. Did you do something that you didn't think would work, but at least you were doing something?

CRI-ADULT ANSWER SHEET

Form: Actual____ Ideal____

Name ______________________ Date ____ /____ / ____ Sex _____ Age _____

Marital Status______________ Ethnic Group ______________ Education ______________

Part 1

Describe the problem or situation _ Your wife's diagnosis of cancer

DN = Definitely No **MN** = Mainly No **MY** = Mainly Yes **DY** = Definitely Yes

1. Have you ever faced a problem like this before? DN MN MY DY
2. Did you know this problem was going to occur? DN MN MY DY
3. Did you have enough time to get ready to handle this problem? DN MN MY DY
4. When this problem occurred, did you think of it as a threat? DN MN MY DY
5. When this problem occurred, did you think of it as a challenge? DN MN MY DY
6. Was this problem caused by something you did? DN MN MY DY
7. Was this problem caused by something someone else did? DN MN MY DY
8. Did anything good come out of dealing with this problem? DN MN MY DY
9. Has this problem or situation been resolved? DN MN MY DY
10. If the problem has been worked out, did it turn out all right for you? DN MN MY DY

Part 2

N = No, Not at all **O** = Yes, Once or twice **S** = Yes, Sometimes **F** = Yes, Fairly often

1 N O S F	2 N O S F	3 N O S F	4 N O S F	5 N O S F	6 N O S F	7 N O S F	8 N O S F
9 N O S F	10 N O S F	11 N O S F	12 N O S F	13 N O S F	14 N O S F	15 N O S F	16 N O S F
17 N O S F	18 N O S F	19 N O S F	20 N O S F	21 N O S F	22 N O S F	23 N O S F	24 N O S F
25 N O S F	26 N O S F	27 N O S F	28 N O S F	29 N O S F	30 N O S F	31 N O S F	32 N O S F
33 N O S F	34 N O S F	35 N O S F	36 N O S F	37 N O S F	38 N O S F	39 N O S F	40 N O S F
41 N O S F	42 N O S F	43 N O S F	44 N O S F	45 N O S F	46 N O S F	47 N O S F	48 N O S F

Appendix J:
Recruitment Materials

SAMPLE SUBJECT RECRUITMENT LETTER

Dear _________________,
Patient Name

The University of North Carolina at Greensboro and the Bowman Gray School of Medicine are conducting a study of male caregiver's coping processes as related to the cancer diagnosis of their spouse. Mr. Frank Browning, a doctoral student in counselor education at The University of North Carolina at Greensboro and Dr. Richard McQuellon, the Director of the Cancer Patient Support Program at Bowman Gray, are directing this research. The objective of the research is to more readily identify the psychosocial needs of male caregivers who have cancer diagnosed spouses. Information obtained in this research may be of immeasurable benefit in refining the services provided to male caregivers of cancer diagnosed females.

In order to be a participant in the study, a male must meet the following requirements: (1) A married male whose wife has been diagnosed with cancer within the last 12 months; (2) No previous experience with a diagnosis of cancer in himself, a spouse, or child; and (3) No history of psychiatric admissions, current involvement in counseling, or current drug treatment for mental or emotional problems. Participation in the study is entirely voluntary.

Would you please discuss with your spouse these requirements and the possibility of his participation. Should he decide to be a part of the study, a questionnaire with accompanying instruments and a consent form will be sent to your home address for his review and completion. Once the questionnaire, instruments, and consent form are completed they should be returned to Mr. Browning via an enclosed postage paid envelope. The entire process should require no longer than one hour to complete. Response to the questions asked will be handled in a confidential manner and participation in the study will remain anonymous. A copy of the summarized study will be sent to your husband upon request at the completion of the study.

If he desires to participate in this study, or if does not wish to be contacted further about the study, please fill in the enclosed postcard and return it to Mr. Browning. Thank you for taking the time to read this letter.

Sincerely,

[Attending Physician]

[Title]

Richard McQuellon, Ph.D.

Director of the Cancer Patient Support Program

SAMPLE SUBJECT RETURN POSTCARD

<u>CAREGIVER</u> <u>STUDY</u> CS___

☐ Yes, my husband is interested in participating in the caregiver study. Please send him a consent form and a study questionnaire.

☐ No, my husband does not wish/is not available to participate in the study.

Please sign and return this postcard. Thank you for your help.

Name______________________________
(Please print)

Signature___________________________

SAMPLE TELEPHONE SCRIPT FOR RECRUITMENT LETTER FOLLOW-UP

Hello, Mr._________________________
This is Frank Browning. I am a doctoral student at the University of North Carolina at Greensboro. Your wife received a letter recently concerning your possible participation in a research study about how males cope with the diagnosis of their wife's cancer. I hope you have had time to consider your possible participation. Do you think you might be a participant?

[Positive reply] That is great, Mr.________________. I will send you the necessary consent form and the questionnaire with instruments in the next five days. Once you have finished the questionnaire and instruments and signed the consent form, please return all of the materials to me via the enclosed envelope. In order for me to complete this study in a timely manner, I would appreciate it if you could return your response to me within 14 days. Let me confirm your address and telephone number. [Pause . . .] If you have any questions concerning this process please do not hesitate to call me collect at 910-716-7980. Do you have any questions? [Pause . . .]

Thank you for your cooperation.

[Negative reply] . I appreciate your consideration of this study. I wish the best for you and your family. Have a great day.

Appendix K:

Consent Form

BOWMAN GRAY SCHOOL OF MEDICINE
WAKE FOREST UNIVERSITY
COMPREHENSIVE CANCER CENTER

COPING STRATEGIES OF MALE CAREGIVERS WITH CANCER DIAGNOSED PARTNERS

CONSENT FORM

I, ______________________ agree to participate in the study on coping strategies of male caregivers with cancer diagnosed partners at the Comprehensive Cancer Center of Bowman Gray School of Medicine. The purpose of this study is to learn about differences in coping strategies used by male caregivers. We hope to use this information to help patients, male caregivers, their families, and the medical team learn more about the coping process associated with the cancer experience. The study involves the completion of a questionnaire. Participating in the study may provide no direct benefit to you; however, the information from the study may be helpful in planning emotional, psychological, and social support for male caregivers with cancer diagnosed partners.

I understand that there is no medical risk to me, and that my identity will remain confidential. My participation is voluntary. I understand that I will not be paid for my participation.

If you have any questions about this study you may contact Frank Browning or Richard P. McQuellon, Ph.D. at 910-716-7980 during working hours Monday through Friday. You may contact the Chairman of the Clinical Research Practices Committee, 910-716-4548 if you have any questions about the rights of research subjects.

Signature ______________________________ Date ________________

Witness ______________________________ Date ________________

Appendix L

Supplemental Demographic Questionnaire Findings

Supplemental Demographic Questionnaire Findings

Question A-18 and A-18a:

Only two subjects answered the question affirmatively. One subject was in counseling infrequently (less than six times a year). The other subject had attended counseling frequently (a weekly basis) (3%).

Question A-19 and A-19a:

Two subjects have sought counseling since learning of their wife's cancer (i.e., one on a weekly basis while the other sought counseling less than six times per year) (3%).

Question A-19b:

Eleven subjects thought counseling or psychotherapy would be helpful. (15%).

Question A-20:

Those utilizing support groups since learning of their wife's cancer are as follows:

Frequently (weekly) = 0
Moderately (monthly) = 3
Infrequently (less than six times a year) 15
(24%) 18 total

Question A-21:

Two subjects reported using alcohol on a weekly basis.

Open Ended Questions

Since I have been asking all of these questions, I would like to offer you the opportunity to tell me what you think is most important in helping you cope with caring for your wife.

- Additional information about cancer research, cancer medicine, cancer treatment.
- Love for my wife
- Neighbors, friends, family, church
- God
- Keeping every day as normal as possible
- Being available to support when needed
- Religious faith
- Caring doctors
- Being there for her
- Wife's attitude and faith in God
- Knowing where to go for help
- Wife's determined, proactive nature
- My positive mental attitude
- Knowledge of cancer
- Assurance that my wife was receiving proper care
- Close relationship with my wife
- Competent healthcare providers
- Insurance
- Keeping active
- Positive response of patient to treatment
- Maintenance of my health so I could help my wife
- Support group
- Normalization of my feelings, especially anger
- Direct/open feedback between me and my wife
- Trust and understanding
- Not letting outside influences interfere with caregiving

What would you recommend to the government and healthcare providers about things they can do to help partners cope with a cancer diagnosed spouse?

- Provide cancer facts to patient and caregiver
- Increase availability of home care
- Provide more support groups
- Increase awareness about cancer
- Stay out of healthcare
- Give paid days off to be with one's spouse
- Increase insurance coverage of cancer
- Encourage open communication among family members confronting cancer
- Provide immediate counseling for partners upon the diagnosis of cancer
- Reduce insurance paperwork associated with cancer
- Simplify financial aspects of cancer
- Increase cancer research
- Increase emphasis on compassion among healthcare providers dealing with cancer
- Be honest about all aspects of cancer
- Provide more attention to the emotional and psychological impact of cancer on the patient and caregiver
- Provide financial support
- Give freedom to choose one's physician
- Provide coping classes
- Emphasize the importance of seeking professional counseling as needed
- Pay for professional counseling as required
- Increase hospice funding
- Increase public education about cancer

Appendix M

Additional Tabular Information

Table 13

Comparison of Barriers by Sex-role Orientation Group

SEX-ROLE ORIENTATION	N	MEAN	STANDARD DEVIATION	T	P VALUE
Instrumental	33	12.273	9.193	0.385	0.701
Affective	41	11.488	8.322		

Table 14

Comparison of Age Group by Sex-Role Orientation

AGE GROUP	INSTRUMENTAL	AFFECTIVE (ANDROGYNOUS)	DF	X2	P VALUE
54 And Older	15 (39%)	23 (61%)	1	.829	.363
Less Than 54	18 (50%)	18 (50%)			

Table 17

Descriptive Statistics for Barrier Categories

	MEAN	MEDIAN	STANDARD DEVIATION	FREQUENCY	PERCENT OF TOTAL	RANK
Physical/Emotional	5.20	5	4.30	385	44.05	1
Community/Family Support	3.95	3	3.43	292	33.41	2
Gender Related	2.66	2	2.51	197	22.54	3
TOTAL				874	100.00	