



Caregivers of physically and mentally impaired elderly : an investigation of burden and depression
by Susan Churchill Barnett

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Education
Montana State University

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Abstract:

The purpose of this study was to examine differences in burden and depression in caregivers of physically impaired older adults and caregivers of older adults with Alzheimer's disease. The relationship between burden and depression was also examined. It was hypothesized that there would be no differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness. It was also hypothesized that caregivers of elders with Alzheimer's disease would be found to be experiencing more burden and depression than caregivers of physically Impaired elders. A positive correlational relationship was hypothesized between burden and depression. The caregivers who participated In this study were recruited through area physicians. Eight were caregivers of older adults with Alzheimer's disease and fourteen were caregivers of older adults with chronic physical impairments. The Zarit Burden Interview and the Beck Depression inventory were the Instruments used to measure burden and depression. The caregivers also completed a demographics questionnaire, t-tests for independent samples yielded no significant differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness. t-tests for Independent samples revealed no significant differences between caregivers of older adults with Alzheimer's and caregivers of older adults with chronic physical impairments in the areas of depression and burden. A statistically significant ($p < .05$) positive correlation was found between burden and depression. In conclusion, caregivers of elders with Alzheimer's disease and caregivers of elders with chronic physical impairments were found to experience similar amounts of burden and depression and high scores on the Zarit Burden Interview were found to be associated with high scores on the Beck Depression Inventory.

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by

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

The purpose of this study was to examine differences in burden and depression in caregivers of physically impaired older adults and caregivers of older adults with Alzheimer's disease. The relationship between burden and depression was also examined. It was hypothesized that there would be no differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness. It was also hypothesized that caregivers of elders with Alzheimer's disease would be found to be experiencing more burden and depression than caregivers of physically impaired elders. A positive correlational relationship was hypothesized between burden and depression. The caregivers who participated in this study were recruited through area physicians. Eight were caregivers of older adults with Alzheimer's disease and fourteen were caregivers of older adults with chronic physical impairments. The Zarit Burden Interview and the Beck Depression Inventory were the instruments used to measure burden and depression. The caregivers also completed a demographics questionnaire. t-tests for independent samples yielded no significant differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness. t-tests for independent samples revealed no significant differences between caregivers of older adults with Alzheimer's and caregivers of older adults with chronic physical impairments in the areas of depression and burden. A statistically significant ($p < .05$) positive correlation was found between burden and depression. In conclusion, caregivers of elders with Alzheimer's disease and caregivers of elders with chronic physical impairments were found to experience similar amounts of burden and depression and high scores on the Zarit Burden Interview were found to be associated with high scores on the Beck Depression Inventory.

CHAPTER 1

INTRODUCTION

This study will examine the subjective experience of caring for a chronically ill parent, spouse, or relative. The experience of caring for an older adult with Alzheimer's Disease will be compared with the experience of caring for a physically impaired older adult. It is hypothesized that a greater degree of burden and level of depression will be experienced by caregivers of older adults with Alzheimer's Disease. It is also hypothesized that there will be a positive relationship between experience of burden and depression.

Mental and physical health care for older adults has become an area of increasing concern for health care giving professionals. Advanced health care and medical knowledge in the past few decades has led to a continually growing population of older adults. The number of persons 65 and older has increased from 16 million to more than 28 million in the past twenty-five years (Statistical Abstract of the United States, 1988). With this growing segment of the population come many medical problems often associated with the infirmities of increased age. This can include physical and mental problems for which the elderly have an increased risk. The incidence of chronic physical impairment tends to increase with chronological age (Dye, 1985). Common chronic physical problems among the elderly population can include arthritis, diabetes, cardiovascular problems, osteoporosis, poor sight and/or hearing, broken bones, and frailty (Knight, 1986; Whitbourne, 1985). These problems can impair the mobility of older adults and often restricts their ability to care for themselves. The chronically impaired older adult can often have difficulty preparing meals, dressing, and doing simple household chores (Branch, 1977). Dementia in the elderly, like chronic physical impairment, can also

restrict the mobility of the older adult. Alzheimer's Disease, a degenerative organic illness accounts for 50 to 65 per cent of dementia cases in older adults (Katzman, 1987). Alzheimer's Disease begins with memory loss and/or personality changes and eventually leaves the afflicted older adult unable to perform even the simplest task. The older adult with Alzheimer's Disease eventually suffers a complete loss of recognition of his/her surroundings and environment (Mace & Rabins, 1981). Each of these physical and organic debilities can range from mild to severe requiring varying amounts of care.

Caring for the mentally and/or physically impaired older adult tends to take place in an institutional or home setting. In an institutional setting care is provided by trained professionals with experience in caring for impaired elderly persons. Caregivers in the home tend to be a spouse, child, or close relative. The care providers in the home setting are often untrained and inexperienced. Spouse caregivers are often elderly themselves and have reduced strength, stamina, and often limited funds. Caregivers who are children of the impaired older person often have a job and family of their own to care for. The physical, financial, and emotional strain of caring for an impaired older adult can be great (Mace & Rabins, 1981).

Caregiving itself can be physically demanding. Lifting, moving, and transporting impaired adults can be extremely difficult for the caregiver (Mace & Rabins, 1981). The financial strains of caregiving stem from the special needs of the impaired older adult. Quite often caregiving in itself becomes a full-time job which requires the working caregiver to give up his/her job or hire respite care for the impaired older adult.

The financial and physical demands of caregiving often contribute to the emotional strain felt by the caregiver (Silverstone, 1985). The social network of the caregiver is often

restricted due to the limited amount of time that the caregiver has for social and recreational purposes. The home often becomes a type of prison for the caregiver (Mace & Rabins, 1981).

Life events have been connected to the onset of depressive illness for many years (Warheit, 1979, Paykel, Prusoff, & Uhlenhuth, 1971, Vinokur & Selzer, 1975). Life events may be defined as desirable or undesirable occurrences in life that require readjustment. Excessive changes make adjustment difficult and produce stress (Vinokur & Selzer, 1975). Moving, marriage, birth of a child, illness, divorce or separation, death of a spouse or close relative are all occurrences which could be termed life events (Paykel, Myers, Dienelt, Klerman, Lindenthal, & Pepper; 1969). In particular the chronic illness of a loved one can be a stressful life event for the caregiver (Colerick & George, 1986). Chronic illness brings about an irredeemable change in the life of the caregiver and the chronically ill person. When depression results from the stressful life event of caring for a chronically impaired elder the quality of caregiving can deteriorate. The emotional, physical, and financial strain of caregiving can be immense. Becoming a caregiver for a spouse, parent, or relative can be devastating. The news that the loved one is chronically ill can in itself cause stress. It brings about an irredeemable change in the life of the caregiver and the ill person. The chronically ill person must slowly give up his/her independence. The caregiver also gives up his/her independence and freedom. The loss of freedom and independence gives way to a burden of responsibility (Scott, Roberto, & Hutton, 1986). Every waking hour is given to the ill person. The amount of burden experienced by caregivers of chronically impaired older adults has been found to be associated with feelings of depression (Drinka, Smith, & Drinka, 1987). Caregivers in

stressful or depressed states could be unable to provide adequate care for their impaired relatives. This might increase the numbers of impaired elderly being institutionalized (Morycz, 1985).

The physical and emotional needs of the caregiver are often overridden by the needs of the ill family member. The needs of the caregiver are of prime importance both for maintaining their wellbeing and that of the elderly they care for. An exploration of these needs will provide the medical and mental health community with avenues upon which to attempt to meet these needs.

Caring for chronically impaired elders has been associated with feelings of burden and depression in caregivers. It is possible that the amount of burden and depression experienced by caregivers is related to the degree of mental incapacity in the chronically impaired older adult. Caring for a physically impaired older adult relative can be stressful because of the time, financial and physical demands on the caregiver. Caring for an older adult relative who is suffering from Alzheimer's Disease has the potential to be even more stressful because of the stresses mentioned above and the increasing mental incapacity of the older adult. The older adult who is suffering from Alzheimer's Disease can become increasingly unpredictable and often unpleasant. As Alzheimer's Disease progresses the victim suffers from memory loss, the inability to relate to others in a caring fashion, and can often become angry and combative. These problems, coupled with the other stresses normally associated with caregiving, could result in greater burden and depression in caregivers of older adults with Alzheimer's than for other caregivers.

CHAPTER 2

LITERATURE REVIEW

Literature reviewed below examines stress and depression in caregivers of organically and physically impaired elderly.

This chapter is organized to acquaint the reader with the current knowledge of the needs and problems of caregivers. In order to do this the following areas will be explored: the elderly, common chronic physical problems of the elderly, the symptoms, progression, and problems of Alzheimer's Disease, current research concerning the problems inherent in caregiving, stress and depression.

The Elderly

As a growing segment of the population, the physical and mental health needs of the elderly are substantial. Eighty-six percent of the elderly population have some type of chronic health problem (Butler, 1985). However, only an estimated 5 percent of persons over sixty-five currently reside in some type of institution (Siegel, 1977). Elders require more doctor visits and spend more time in the hospital than do the rest of the population. The average hospital stay of an elderly person is 14 days (Butler, 1985). Emotional and mental illness tends to increase over the life cycle. Hypochondriasis is common among the elderly and the incidence of depression tends to increase with age. Elderly white males have the highest suicide rate in the United States (Butler, 1985).

Chronic Physical Impairment and Alzheimer's Disease

Chronic Physical Impairment

The number of adults age 65 and older has steadily increased over the past twenty-five years and is projected to continue to increase (Statistical Abstract of the United States, 1988). The incidence of chronic physical impairments tends to rise sharply with age in those adults aged 45 to 64 and dramatically among older adults age 65 and older (Institute of Medicine and National Research Council, 1985). Seventy-five percent of the population of older adults 65 and older suffer from at least one chronic condition and half of this population suffers from more than one chronic condition (Riley and Foner, 1968).

Common chronic diseases and physical impairments which plague the older adult population are cardiovascular problems, arthritis, problems with sight and hearing, diabetes, and chronic disability due to falls and injuries (Riley and Foner, 1968; Agate, 1970; Dye, 1985).

Cardiovascular disease tends to begin at a young age but reaches a severe, chronic stage in older adulthood (Lakatta, 1985). Cardiovascular disease accounts for 72 percent of all deaths of adults over the age of sixty-five (Dye, 1985). Shortness of breath, reduced tolerance for exertion, lethargy, confusion and depression often affect the older adult with cardiovascular disease (Agate, 1970). The activities of twenty-one percent of older adults is limited because of arthritis (Riley & Foner, 1968). Arthritis is a disabling condition of the joint which can be extremely painful. Often older adults suffering from arthritis are at times wheelchair-bound or are in need of some type of walking aid (Agate, 1970). Arthritis can affect joints in the hands, shoulders, hips, knees, feet, spine, and other areas of the body and can often result in deformities of the joint (Agate, 1970). Impairments in vision and hearing affect most older

adults to some degree (Riley & Foner, 1968). Presbyopia, the inability of the crystalline lens of the eye to focus on objects close to the eye, eventually affects all older adults. This is due to thickening of the crystalline lens (Sekular & Blake, 1985). Cataracts, opacity of the crystalline lens, plague many older adults and can at times result in blindness. Failing vision can severely limit the ability of older adults to care for themselves (Agate, 1970). As human beings age, the ability to hear high frequencies tends to decrease (presbycusis). Young humans can hear frequencies as high as 20,000 Hz. By the age of seventy frequencies higher than 6,000 Hz are inaudible (Sekular & Blake, 1985). Loss of hearing often isolates the older adult from the world around him/her (Agate, 1970). Diabetes is common among older adults with fifty percent having some form of diabetes (Dye, 1985). Diabetes can have serious complications for older adults. Some of the more serious complications are those of the visual and vascular systems. Diabetes can lead to blindness and gangrene resulting in amputation from vascular system problems (Agate, 1970). Seventy percent of deaths due to falls occur in those sixty-five and older. Older adults are often severely disabled by falls and other types of injuries (Hogue, 1977). The frailty of older adults often worsens injuries and fractures are common. Hospital stays due to injuries are often long and arduous for the older adult. Injuries tend to sap the confidence of the older adult, severely curtail independence and often lead to further physical breakdown (Agate, 1970).

Alzheimer's Disease

In 1907, Alois Alzheimer reported a peculiar dementing illness which he observed in a 51 year old woman. The woman was forgetful, paranoid and bizarre to a degree requiring hospitalization. The patient became progressively cognitively and emotionally impaired and

died four and a half years after the onset of the disease. Alzheimer termed this malady senile dementia or dementia of the Alzheimer type (Bondareff, 1986; Mace & Rabins, 1981).

Meier (1986) estimated that more than 20% of the people who reach age eighty will suffer from a moderate to severe form of dementia. Very few causes of dementia are treatable or reversible. The most common chronic irreversible form of dementia is Alzheimer's Disease (Nee, Polinsky, Eldridge, Weingarter, Smallberg, & Ebert, 1983). Alzheimer's Disease affects the cerebral cortex of the brain (Bondareff, 1986). It is characterized by senile plaques, neurofibrillary tangles, granulovacuolar structures, and an overall loss of neurons. Senile plaques are masses of degenerated cell matter that occur in the spaces between cells. They interfere with messages which travel from cell to cell in the brain. Neurofibrillary tangles are tangled protein fibers which appear inside brain cells and cause the cells to shrink and atrophy. Granulovacuolar structures are sacs filled with fluid and granular material that accumulate in the hippocampus (Zarit, 1985). Senile plaques and neurofibrillary tangles are found in all people in numbers that increase with age. The number of senile plaques and neurofibrillary tangles is limited in most normally functioning older people. People with Alzheimer's Disease possess abnormally large numbers of senile plaques and neurofibrillary tangles (Wells, 1978).

The clinical features of Alzheimer's Disease were described by Semple, Smith, and Wash (1982). They reported that the onset of Alzheimer's Disease is usually a gradual one. Short term memory is often impaired, while long term memory usually remains intact in the early stages of the disease. The afflicted person's range of interests decreases, affect is blunted, and concern for the welfare of others often diminishes. Depressive symptoms are often common in the early stages of the Alzheimer's Disease. In addition to the memory impairment there tend to be general intellectual deficits. The Alzheimer's Disease patient's vocabulary becomes

impoverished and phrases and tenses are often simplified. There is usually dressing apraxia (the inability to perform a series of purposeful movements); agnosia (the partial or total inability to attach meaning to sensory impression); and geographic, time, space, and person disorientation. The personality itself deteriorates. As the disease progresses the Alzheimer's Disease patient becomes progressively isolated from visual and auditory contact with the environment. Speech is reduced to a babble. During the final stages of Alzheimer's Disease emotional responses tend to be absent or are replaced by loud, abnormal laughter and moaning. Impassivity of expression, rigidity, and disorders of posture, stance, movement, and muscular tone become prominent as the disease progresses. Extreme weight loss has been noted in the final stages of the disease.

Caregivers

Caregivers of Physically Impaired Elderly

Many adults age 65 and older suffer from one or more chronic physical impairment (Riley & Foner, 1968). Older adults with chronic physical impairments often need some type of support from relatives or friends. Cantor (1983) interviewed caregivers of the frail elderly in order to better understand how caregiving impacts the life of the caregiver. The overriding problem was found to be emotional strain of dealing with increasing frailty in a person to whom one is close. It was also found that the closer the emotional bond between the caregiver and frail older adult, the more stressful the caregiving role (Cantor, 1983).

Caregiving support needed by impaired older adults can range from limited to extensive. Sanford (1975) surveyed fifty caregivers of physically and mentally impaired older adults. Incontinence, night wandering, and immobility were found to be problems least tolerated by caregivers. These problems are ones which would require a maximum of time and effort from

the caregiver and therefore are less easily tolerated. This suggests that intolerance for caregiving increases with severity of impairment. Almost half of the caregivers reported a restricted social life and one quarter reported an inability to leave the impaired older person for more than one hour (Sanford, 1975).

The physical demands of caregiving can often be immense. Everyday duties can often include feeding, bathing, lifting, dressing, and often diapering. These simple tasks can be difficult with a baby or small child. The size, weight, and compliance of the older adult can even further complicate these tasks.

Financial strains of caregiving arise from the special needs of the impaired older adult. Quite often caregiving in itself becomes a full-time job which requires the working caregiver to give up his/her job or hire respite care for the impaired older adult.

The financial and physical demands of caregiving often contribute to the emotional strain felt by the caregiver (Silverstone, 1985). Medical costs can include hospitalization, pharmaceuticals, and doctor visits. The impaired older adult often needs special equipment such as; wheelchairs and walkers, commodes, shower and bath equipment, hoists for lifting, and clothing which can be easily put on or removed. The social network of the caregiver is often restricted due to the limited amount of time that the caregiver has for social and recreational purposes. The home often becomes a type of prison for the caregiver (Mace & Rabins, 1981).

Caregivers of Elderly with Alzheimer's Disease

Alzheimer's Disease often begins with memory loss and irritability and results in a complete inability to care for one's self, recognize loved ones, and communicate with others (Semple, Smith, and Wash; 1982). Alzheimer's Disease affects not only the person afflicted with the disease, but the person's family as well. At some point the person with Alzheimer's

Disease requires assistance from a family member or friend. This need for help increases over time until constant care is required. Caring for a person with Alzheimer's Disease becomes a full time job for which most people are not trained (Maletta & Hepburn, 1986). What makes Alzheimer's Disease particularly stressful is a combination of the afflicted person's mental decline and loss of independence. The person with Alzheimer's Disease is intellectually dying (Ory, Williams, Emr, Lebowitz, Rabins, Salloway, Sluss-Radbaugh, Wolff & Zarit, 1985). The caregiver of an Alzheimer's Disease patient experiences a great deal of burden which Ory, et al. (1985) define as the impact of the changes in cognition and behavior of the patient with Alzheimer's Disease on the family, and the patient's subsequent need for care and supervision. In a study designed to investigate the multidimensional properties of burden in caregivers (Poulshock & Diemling, 1984), associations between elder impairment, burden, impact on family life, and depression were explored. Mental impairment in elders and the burden experienced by their caregivers was found to be associated. High levels of burden have been found to be associated with nursing home placement (Zarit, Todd, & Zarit, 1986). The more burden the caregiver experiences the higher the chances the ill relative will be institutionalized.

Cantor (1983) found that the most severe burden was felt in the areas of free time, socializing, leisure pursuits, and household chores. The caregivers no longer had time for outside interests due to the time spent caring for their family member afflicted with Alzheimer's Disease. Social isolation (Wasow, 1985; Morycz, 1980; Maletta & Hepburn, 1986) is another area that causes feelings of burden among caregivers. The actual caregiving is a time consuming job that affords the caregiver very little free time. The long progressive nature of Alzheimer's Disease often causes friends and relatives to avoid the afflicted person.

The avoidance also distances the friends and relatives from the caregiver. As Alzheimer's Disease progresses it becomes increasingly difficult to take the family member out of the home. This tends to isolate the caregivers and make them feel as if they are trapped with the family member afflicted with Alzheimer's Disease. In a study which investigated the association between support and burden in caregivers, Scott, Roberto, & Hutton (1986), found that caregivers who felt they were not receiving support from others tended to experience more burden than did caregivers who felt they were receiving support from others. Support groups for patients and caregivers tended to decrease the amount of burden experienced by caregivers (Winogron, Fisk, Kirsling, & Keyes, 1987).

Spouses, children, and friends of the person afflicted with Alzheimer's Disease most often assume the role of caregiver. The relationship between amount of burden felt by the caregiver and the closeness of the caregiver's relationship with the afflicted person has been explored and differing results have been found. Some studies have found that the closer the relationship between the person with Alzheimer's Disease and the caregiver, the higher the degree of burden felt by the caregiver (Grad & Sainsbury, 1963; Aronson, Levin, & Lipkowitz, 1984; Cantor, 1983). This finding could be due to the emotional strain of watching a loved one slowly deteriorate. Ory et al. (1985), in a review on current research on Alzheimer's Disease and caregivers stated that the better the relationship between caregiver and Alzheimer's victim and caregiver the less burden experienced. No source was given for this finding, therefore the origins of the statement are unknown. Thompson and Doll (1982), in a study which examined the emotional and social costs of caregiving interviewed 125 family caregivers of the mentally ill. No significant relationship between the closeness of the Alzheimer's patient and the caregiver in relation to the amount of burden felt by the caregiver was found.

One of the most difficult problems faced by some caregivers is that of role reversal (Aronson, Teusink & Mahler, 1984). The person afflicted with Alzheimer's Disease becomes more and more dependent on the caregiver. This dependence means that they need to be cared for as if they were small children. Temper tantrums must be dealt with, diapers changed, and the ill person may need to be hand fed. Children often find it very difficult to assume the role of caregiver to a parent with Alzheimer's Disease, a parent that may have been seen as strong and invincible. Strains of children caring for parents with Alzheimer's Disease are often compounded by intergenerational difference (Cantor, 1983). In the case of Alzheimer's Disease the caregiver must, in effect, become parents to their own parents. Husbands typically have trouble assuming the role that their wives once occupied. They tend to have difficulty preparing meals and doing household chores in addition to performing the full time job of caregiving. Wives also have trouble assuming the role of caregiver. Often husbands have taken care of finances and household repairs for years, and it is frequently difficult for the wife to take over those duties. Both spouses incur many problems attempting to take over the role that was once filled by his/her ill spouse. Morycz (1985) found that husbands tend to be much more willing to ask for help outside of the family than are wives. Wives often feel as if they should be able to manage the house, finances, and the person with Alzheimer's Disease. Women tend to be in a caregiving role for most of their lives, caring for their children and their husbands. It is very difficult for them to accept the fact that this type of caregiving is almost impossible to do without some form of help (Morycz, 1985). Conversely, in a comparison of spouse caregivers of dementia patients, Fitting, Rabins, Lucas, & Eastham (1986), found no differences in amount of burden experienced by male and female caregivers.

Financial problems may increase burden for many families (Cicirelli, 1984). The cost of institutionalization or hired caregivers is high. Most victims of Alzheimer's Disease eventually reach a state where constant care and supervision is needed. This is often difficult if the caregiver has a job outside the home. Minority and low socioeconomic status families tend to keep the family member with Alzheimer's Disease at home until a very advanced stage of the disease. They tend to make little or no use of formal supports until some catastrophic situation forces them to institutionalize the family member afflicted with Alzheimer's Disease. Families at higher socioeconomic levels are more likely to maintain the family member with Alzheimer's Disease at home through the use of hired caregivers and companions, rather than performing instrumental caregiving tasks themselves or making use of community institutions. The financial resources of the family are an important factor in determining the extent and quality of family caregiving, the hiring and supervision of additional help and the use of institutional alternatives.

Burden experienced by caregivers of chronically impaired older adults has been investigated in several different aspects as stated in the literature cited above. Grad & Sainsbury (1963) investigated burden in caregivers of the mentally ill. Cantor (1983) and Sanford (1985), explored burden in caregivers of chronically impaired older adults. The samples used in these studies contained both mentally and physically impaired older adults in need of care. Studies by Zarit, Todd, and Zarit (1986), Morycz, (1985), Scott, Roberto, and Hutton (1986), Winogron, Fisk, Kirsling, and Keyes (1987), and Fitting, Rabins, Lucas, and Eastham (1986) examined burden only in caregivers of older adults with Alzheimer's disease. Poulshock and Diemling (1984), in an examination of the multidimensional aspects of burden discovered an association between mental incapacity in ill older adults and burden levels.

Increased mental incapacity was found to be associated with increased burden levels. This study will address what seems to be a deficit in the current literature, comparisons between caregivers of the physically and mentally (Alzheimer's afflicted) impaired elders. Mental incapacity can be profound in those suffering from Alzheimer's Disease. Therefore caregivers of older adults with Alzheimer's Disease could be expected to experience higher levels of burden and depression than caregivers of physically ill older adults.

Life Events and Depression

Numerous studies have demonstrated the relationship between stressful life events and depression (Myers, Lindenthal, Pepper & Ostrander, 1972; Lloyd, 1980; Paykel, Myers, Dienalt, Klerman, Lindenthal, & Pepper, 1969). Myers, Lindenthal, Pepper & Ostrander (1972) investigated the relationship between stressful life events and mental status over a two year period with a systematic randomly sampled population in a metropolitan area. Mental status and recent changes in life events were recorded and then again recorded two years later. Increased changes in stressful life events were found to be related to increased pathology on the mental status exam.

Paykel et.al. (1969) compared a control group and a group of depressed patients on recent stressful life events. The depressed patients reported nearly three times as many important stressful life events in the six months prior to the onset of the depressive episode as did the control group.

Support systems have been found to decrease the likelihood of depression following significant life events. Caregivers often find that their circle of social and familial support decreases when their life becomes consumed with caregiving. When high life event scores (Warheit, 1979) showed significant relationships to increased depressive symptomology,

persons with personal, familial, and interpersonal resources had significantly less depressive symptomology than did those without resources.

Paykel, Prusoff, & Uhlenhuth (1971) asked subjects to rate the severity of stress associated with various life events. Their findings suggest that the death of a spouse or close family member, hospitalization of a family member, and the loss of a personally valuable object are extremely stressful events. Financial difficulties, separation from a significant person, and a change in line of work are moderately stressful life events. Each of these life events are not uncommon for caregivers of chronically impaired older adults (Chenowith & Spencer, 1986; Mace & Rabins, 1981).

The burden associated with caring for a family member with Alzheimer's Disease has been linked to depression in caregivers (Poulshock & Deimling, 1984; Pagel, Becker, & Coppel, 1985; Drinka, Smith, & Drinka, 1987). The caregivers tend to feel as if they have lost control over their own lives. It is likely that this feeling of loss of control can lead to depression in caregivers. Also, higher levels of burden can lead to depression, which can in turn, lead to higher levels of burden. This can form a dangerous cycle which affects both the caregiver and ill older adult.

Statement of the Problem

This study is designed to examine burden and depression in caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments. The experience of caring for an older adult with Alzheimer's Disease will be compared with the experience of caring for a physically impaired older adult. It is expected that the experience of these two groups will be different, even when there is no difference between them in the areas of caregiver age, ill relative age, length of relationship, and length of illness. It is expected that

a greater degree of burden and depression will be experienced by caregivers of older adults with Alzheimer's Disease than for caregivers of physically impaired elderly. It is also expected that there will be a positive relationship between experience of burden and depression for both caregivers of physically impaired elderly and caregivers of older adults with Alzheimer's Disease. Areas which appear to be particularly strong sources of burden or depression for caregivers will be explored by examining responses to specific items on the measures of burden and depression.

CHAPTER 3

METHODOLOGY

This section will present the methodology of the study. The sample, research instruments, administration of the instruments, hypotheses, and statistics used to analyze the data will be described.

Research Hypotheses

1. There will be no differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness.
2. Burden will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of physically impaired elderly.
3. Depression will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of physically impaired elderly.
4. There will be a positive relationship between the amount of burden experienced by the caregiver and depression.

Design Statement

The experimental design used was a static group comparison as defined by Campbell and Stanley (1963). The threats to internal and external validity which are inherent to this design are selection, mortality, interaction of selection and maturation, and the interaction of selection and the experimental treatment.

Sample

Samples from two populations were used in this study. The populations studied were, (a) caregivers of older adults with Alzheimer's Disease and (b) caregivers of physically impaired older adults.

Subjects for both samples were recruited through physicians in the Gallatin and Park County area. Thirty-four area physicians were contacted via a letter (Appendix B) which was followed by a phone call. The names and addresses of all physicians contacted were obtained from the yellow pages of the local phone book. Seven of the thirty-four physicians contacted agreed to participate in the study. Those physicians who did not participate in the study, did not respond to the letter or to repeated phone messages left by the author. The physicians who did participate selected from their patients those who were organically or physically impaired, still resided in their own home, and had a primary caregiver which was a spouse or child. The physicians who chose to participate then supplied the author with the name of the caregiver, nature of relationship to the ill older adult, phone number of caregiver, address of caregiver, name of the ill older adult, and diagnosis of the ill older adult. Twenty-seven subjects were referred to the author. Of these twenty-seven referred subjects twenty-two participated in the study, constituting a return rate of eighty-one percent.

The combined sample consisted of 22 subjects who were caring for a chronically ill older adult (Table 1). The mean age of the caregivers was 62.64, while the mean age of the ill older adults they were caring for was 74.67. The relationship between the caregiver and the ill older adult tended to be long term, an average of 44.05 years. The length of the illness of the ill older adult ranged from one quarter of a year to twenty years with a mean of 6.30 years. The

caregivers in the sample were caring for older adults with the following array of illnesses: Alzheimer's disease, emphysema, heart problems, high blood pressure, cancer, multiple sclerosis, diabetes, dehydration, and frailty.

Table 1. Combined Sample Demographics

Variable	N	\bar{X}	SD	Minimum	Maximum
Caregiver Age	22	62.64	15.67	24.00	83.00
Ill Relative's Age	21*	74.67	11.51	51.00	96.00
Length of Relationship (years)	22	44.05	12.53	20.00	68.00
Length of Illness	22	6.30	5.15	.25	20.00

*Decreased N size due to questions left blank on questionnaire

The two samples were composed of caregivers of elders with Alzheimer's disease and caregivers of elders with chronic physical impairments (Table 2). Eight of the subjects were caring for elders with Alzheimer's Disease, fourteen were caregivers of elders with chronic physical impairments. The mean age of caregivers of elders with Alzheimer's disease was 69.13, while the mean age of the elders with Alzheimer's disease they were caring for was 73.89 (Table 3). The mean age of caregivers of elders with chronic physical impairments was 58.93, while the mean age of the elders with chronic physical impairments they were caring for was 75.15. Fourteen of the caregivers were spouse caregivers and eight caregivers were children caring for a chronically ill parent. Sixteen of the caregivers were female, six were male.

Table 2. Caregiver Demographics

Variable		N	%	\bar{X} Age	SD
Type of Care-giver	C. G.'s of Elders With Alzheimer's	8	36	69.13	10.19
	C. G.'s of Physically Impaired Elders	14	64	58.93	17.32
	Total	22	100	-----	-----
Relation-ship	C. G.'s Caring for a Spouse	14	64	70.36	8.77
	C. G.'s Caring for a Parent	8	36	49.13	16.30
	Total	22	100	-----	-----
C. G.'s of Elders With Alzheimer's	Male	1	12	76.00	-----
	Female	7	88	68.14	10.59
	Total	8	100	-----	-----
C. G.'s of Phys. Impaired Elders	Male	5	36	57.20	22.72
	Female	9	64	59.89	15.05
	Total	14	100	-----	-----

Table 3. III Relative Demographics

Variable		N	%	\bar{X} Age	SD
Type of III Relative	Elders With Alzheimer's	8	36	73.88	2.70
	Physically Impaired Elders	14	64	75.15	14.70
	Total	22	100	----	----
Elders With Alzheimer's	Male	4	50	73.00	2.16
	Female	4	50	74.75	3.20
	Total	8	100	----	----
Physically Impaired Elders	Male	6	43	79.00	8.60
	Female	8	57	72.75	17.63
	Total	14	100	----	----

Questionnaire

This section describes the cover letter, request for information and instruments used to measure caregiving, depression, burden and demographics. The questionnaire (appendices C,D,E,F,G,H) was formatted using the Chicago 12 point font to facilitate easy reading by a predominantly older population.

Cover Letter

The cover letter (Appendix C) was used to introduce the author and the purpose of the study to the caregiver. The cover letter contained a statement of confidentiality and instructions pertaining to completing and returning the questionnaire to the author.

Request for Information

The request for information (Appendix D) was provided so that interested subjects could receive the results of the study. A confidentiality statement was included in the request for information. The return of the request for information form was optional for the subject.

Information Sheet

The information sheet (Appendix E) was designed by the author. It was used to gain information about the caregivers and their relationship with their ill loved one. It contained short answer questions concerning the nature of the relationship, length of the relationship, type of impairment, age of the caregiver, age of the impaired person, support system of the caregiver, gender, hours per day spent caregiving, attitude towards choice about caregiving and average yearly income. A section for comments was also included (Appendix I).

Zarit's Burden Interview

The Burden Interview (Zarit, Orr, & Zarit, 1986) (Appendix F) was especially designed to reflect the stresses experienced by caregivers of dementia patients. It can be used as a self-report measure or as an interview measure. The Burden Interview consists of a series of 22 questions to be answered by the caregiver about the impact of the patient's impairment on the life of the caregiver. The responses are coded on a 0-4 Likert scale, 0 being little or no impact and 4 being severe impact. The Burden Interview is scored by summing the responses of the individual items. Scores range from 0-88. Norms for the Burden Interview have not been

computed, but estimates of the degree of burden have been made from preliminary findings. These are: 0-20 little or no burden, 21-40 mild to moderate burden, 41-60 moderate to severe burden, and 61-88 severe burden (personal correspondence with Steven H. Zarit).

Internal reliability for the Burden Interview has been estimated using Cronbach's alpha at .88 (Hassinger, 1985) and .91 (Gallagher, et al., 1985). Test retest reliability is reported at .71 (Gallagher, et al., 1985). Validity has been estimated by correlating the total score with a single global rating of burden ($r=.71$), and by correlating the total score with the Brief Symptom Inventory (Derogatis, et al., 1970) ($r=.41$).

The Zarit Burden Interview has been used to measure burden in caregivers of older adults suffering from dementia, Alzheimer's Disease, and depression (Drinka, Smith, & Drinka, 1987; Fitting, Rabins, Lucas, & Eastham, 1986; Liptzin, Grob, & Eisen, 1988; Scott, Roberto, & Hutton, 1986; Winogron, Fisk, Kirsling, & Keyes, 1987; Zarit, Todd, & Zarit 1986).

In addition to obtaining a total score Zarit Burden Interview score for each caregiver, individual items will be examined to ascertain which areas appear to be most highly associated with burden in caregivers.

Beck Depression Inventory

The Beck Depression Inventory (Appendix G), is the most frequently used method of assessing severity of depression (Shaw, Vallis, & McCabe, 1985). The scale is clinically derived and designed to measure both attitudes and symptoms of depression. Each category describes a specific behavioral manifestation of depression. Each item consists of a graded series of 4-5 self evaluative statements which are ranked to reflect the severity of the symptom from neutral to maximum severity (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The Beck Depression Inventory has been shown to be applicable across cultures. Split

half-reliability coefficients have been reported between .58-.93. The concurrent validity of the Beck Depression Inventory has correlated with clinician's ratings of depth of depression resulting in correlations ranging from .62-.77 (Shaw, Vallis & McCabe, 1985).

The Beck Depression Inventory has been used with many different populations. Pagel, Becker, & Coppel (1985) used the Beck Depression Inventory to investigate depression in caregivers of older adults with Alzheimer's Disease. The Beck Depression Inventory was used by Sowa & Lustman (1984) in an investigation of life stress and depression.

In addition to obtaining a total score Beck Depression Inventory score for each caregiver, individual items will be examined to ascertain which areas appear to be most highly associated with depression in caregivers.

Procedures

The study design was submitted to and deemed acceptable by the Human Subjects Committee (Appendix A). Thirty-four area physicians were contacted by letter (Appendix B) in December 1988. Phone contact was made or attempted in January and February 1989. Seven area physicians agreed to participate in the study and referred a total of twenty-seven subjects to the author. Caregiver names and addresses were received by the author in February, March, April, and May 1989. Where possible caregivers were contacted by the referring physician or the author via a phone call to gain consent.

Data collection took place during May and June of 1989. The subjects received a packet through the mail which contained the following:

1. Cover Letter (Appendix C)
2. Request for Information (Appendix D)
3. Information Sheet (Appendix E)

4. Zarit Burden Interview (Appendix F)
5. Beck Depression Inventory (Appendix G)
6. Thank You Sheet (Appendix H)
7. Envelope, addressed to the author

The questionnaire was returned to the author over a three week period in May and June 1989. Twenty-two of the twenty-seven subjects returned the questionnaire which yielded a eighty-one percent return rate.

Data Analysis

The data was analyzed using t-tests for independent samples and the Pearson Product-Moment Correlation Coefficient (Spatz & Johnson, 1984).

1. t-tests for independent samples with a level of significance at or beyond .05 was used to ascertain differences between caregivers of elders with Alzheimer's Disease and caregiver's of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness.
2. A t-test for independent samples with a level of significance at or beyond .05 was used to determine differences in burden between caregivers of relatives with Alzheimer's and caregiver's of relatives with chronic physical impairments.
3. A t-test with a level of significance at or beyond the .05 level was used to determine differences in depression between caregivers of relatives with Alzheimer's and caregiver's of relatives with chronic physical impairments.

4. A Pearson Product-Moment Correlation Coefficient with a level of significance at or beyond the .05 level was used to determine the relationship between burden and depression.
5. Mean scores on each item in the Zarit Burden Interview and the Beck Depression Inventory will be graphed in order to examine specific areas of burden and depression.

CHAPTER 4

RESULTS

Depression and burden in caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments were studied to test the following alternative hypotheses:

1. There will be no differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness.
2. Burden will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of elders with chronic physical impairments.
3. Depression will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of elders with chronic physical impairments.
4. There will be a positive relationship between the amount of burden and depression experienced by the caregiver.

The results of the data analyses for each of the hypotheses is reported in the following sections. An explanation and interpretation of these results will be provided in Chapter 5. Firstly, means and standard deviations for the Zarit Burden Interview and Beck Depression Inventory, caregiver age, ill relative age, length of relationship, and length of illness for combined samples will be reported. This will be followed by a comparison of caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments.

Combined Samples

Combined sample statistics for the Zarit Burden Interview, Beck Depression Inventory, caregiver age, ill relative age, length of relationship, and length of illness are reported in Table 4.

The mean age of the caregivers surveyed was 62.64, with a standard deviation of 17.28. The youngest caregiver was 24 and the oldest was 83 years of age.

The mean age of the ill older adults who were receiving care was 74.67, with a standard deviation of 11.51. The minimum and maximum age of the ill older adults was 51 through 96.

Table 4. Combined Sample Statistics

VARIABLE	\bar{X}	SD	N	Minimum	Maximum
Zarit Burden Interview	34.18	17.28	22	6.00	64.00
Beck Depression Inventory	7.96	6.19	22	.00	23.00
Caregiver Age (years)	62.64	15.67	22	24.00	83.00
Ill Relative Age (years)	74.67	11.51	21*	51.00	96.00
Length of Relationship (years)	44.05	12.53	22	20.00	68.00
Length of Illness (years)	6.30	5.15	22	.25	20.00

*Decreased N size due to questions left blank on the questionnaire

The mean length of the relationship between the caregiver and the ill relative was 44.06 years and includes marital and parental relationships. The standard deviation was 12.53. The longest relationship had lasted 68 years and the shortest was a 20 year relationship.

The ill relatives of the caregivers sampled had been ill an average of 6.30 years, with a standard deviation of 5.15. The shortest length of illness was one quarter of a year and the longest was 20 years.

The mean Zarit Burden Interview score for the combined n of 22 subjects was 34.18, standard deviation 17.28, with a minimum score of 6 and a maximum score of 64.

The mean Beck Depression Inventory score for the combined n of 22 subjects was 7.96, standard deviation 6.20, with a minimum score of 0.00 and a maximum score of 23.00.

Tests of Hypotheses

Hypothesis 1

Independent samples t-tests were used to compare caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments on the following variables: caregiver's age, ill relatives age, level of impairment, closeness at present, length of relationship, length of illness, hours spent in care, feelings of having support, and ability to leave the ill relative unattended.

Independent samples t-tests yielded no significant differences between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments on the previously mentioned variables (Table 5).

Table 5. Comparison of the Two Groups

VARIABLE		N	\bar{X}	SD	t	p
Care-giver Age	Caregiver's of Alzheimer's	8	69.13	10.19	1.51	N.S.
	Caregivers of phys. impaired	14	58.93	17.32		
Ill Relative Age	Alzheimer's	8	73.88	2.70	-.241	N.S.
	Physically Impaired	13	75.15	14.70		
Length of Rela- tionship	Caregiver's of Alzheimer's	8	43.63	12.25	-.116	N.S.
	Caregivers of phys. impaired	14	44.29	13.14		
Length of Illness	Alzheimer's	8	5.56	2.38	-.501	N.S.
	Physically Impaired	14	6.73	6.26		

Hypothesis 2

Burden will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of elders with chronic physical impairments.

Table 6. Comparison of Zarit Burden Interview Scores

VARIABLE		N	\bar{X}	SD	t	p
Zarit	C.G. of Alzheimer's	8	31.88	21.24	-.464	N.S.
Burden						
Interview	C.G. of phys. impaired	14	35.50	15.30		

An independent samples t-test showed no significant difference between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments and the amount of burden they experienced (Table 6).

Hypothesis 3

Depression will be greater for caregivers of elders with Alzheimer's Disease than for caregivers of elders with chronic physical impairments.

Table 7. Comparison of Beck Depression Inventory Scores

VARIABLE		N	\bar{X}	SD	t	p
Beck	C.G. of Alzheimer's	8	8.50	8.40	.306	N.S.
Depression						
Inventory	C.G. of phys. impaired	14	7.64	4.86		

An independent samples t-test showed no significant difference between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments and the amount of depression they experienced (Table 7).

Hypothesis 4

There will be a positive relationship between the amount of burden and depression experienced by the caregiver.

Table 8. Relationship Between Burden and Depression

VARIABLE	N	r	p	r ²
Zarit Burden Interview	21	.760	<.05	.578
Beck Depression Inventory	21			

A Pearson Product-Moment Correlation Coefficient for independent samples revealed a significant positive correlation between the amount of burden and depression experienced by the caregiver (Table 8).

Examination of Specific Items

The combined sample mean score, standard deviation, number, and standard error for the items on the Zarit Burden Interview are represented in Table 9 and Figure 1 (Appendices J and K). The items with the highest mean scores were items 3, 7, 8, and 14. Item 3 ($\bar{X}=2.091$) pertained to stress due to caring for an ill older adult while also attempting to meet family and work responsibilities. Item 7 ($\bar{X}=2.091$) pertained to fear of what the future holds for the ill relative. Item 8 ($\bar{X}=3.727$) asked the caregiver how dependent they feel the ill relative is on them. Item 14 ($\bar{X}=2.455$) asked the caregiver if the ill relative felt they were the only one who could care for him/her. The items with the lowest mean score on the Zarit Burden Interview were items 4, 5, and 6. Item 4 ($\bar{X}=.773$) pertained to embarrassment over the ill

relatives behavior, item 5 ($\bar{X}=1.000$) to anger felt toward the ill relative, and item 6 ($\bar{X}=.810$) to negative effects on the family.

The combined sample mean score, standard deviation, number, and standard error for the items on the Beck Depression Inventory are represented in Table 11 and Figure 2 (Appendices M and N). The items with the highest mean score were P, Q, and U. Item P ($\bar{X}=.995$) denotes problems with insomnia, item Q ($\bar{X}=.864$) with fatigability, and item U ($\bar{X}=1.000$) with loss of libido. The items with the lowest mean score on the Beck Depression Inventory were E, G, and I. Item E ($\bar{X}=.955$) concerns feelings of guilt, item G ($\bar{X}=.000$) feelings of self-dislike, and item I ($\bar{X}=.000$) concerns suicidal ideation.

CHAPTER 5

DISCUSSION

The purpose of this research study was to examine burden and depression in caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments. This chapter will discuss major findings, limitations, and conclusions of the study. Implications of these findings and suggestions for future research will also be discussed.

Combined Samples

The people studied were primary caregivers (spouses and children) of chronically ill older adult relatives. The mean age of the caregivers was 62.64, while the mean age of the older adults they were caring for was 74.67. The age difference between caregivers and ill older adults can be attributed to the fact that some of the caregivers were spouses and some were children of the ill older adult which lowered the mean age of the caregivers. The fact that the mean age of the caregivers surveyed was 62.64 indicates that caregivers of chronically impaired older adults tend to be older adults themselves. Caregivers who are themselves older adults, may suffer from decreased stamina and poor health themselves, which can make caregiving an even more strenuous task. The average length of the relationship between caregivers and the ill older adult was 44.05 years. Sixty-four percent of these relationships were spousal and 36 % were parental. The ill older adults had been chronically ill for an average of 6.30 years, which means the caregivers sampled had been caring for an ill older adult an average of over six years.

The mean Zarit Burden Interview score for the caregivers surveyed was 34.18 which is in the upper mild to moderate burden range (see Appendix L). Sixteen (73%) of the caregivers were experiencing some amount of burden at the time of the survey (Table 10). Six of the caregivers surveyed reported experiencing no burden, seven were experiencing mild to moderate burden, seven moderate to severe burden, and two caregivers reported experiencing severe burden. This reinforces the findings of Cantor (1983), Sanford (1975), Silverstone (1985), and Grad and Sainsbury (1963) and other studies which investigated burden in caregivers. The fact that 73% of the caregivers were experiencing some amount of burden implies that they are not receiving adequate support. This lack of support could stem from inadequate community services, familial support, and information sources. Six of the caregivers reported experiencing no burden. The job of caring for a chronically ill older adult would seem to be burdensome to some degree under almost any circumstances, therefore those reporting no burden could be minimizing the burden they are under.

The areas on the Zarit Burden Interview which the caregivers found to be most burdensome pertained to burden due to caring for an ill older adult while also attempting to meet family and work responsibilities, how dependent the ill relative is on the caregiver, fear of what the future holds for the ill relative, and feelings that the ill relative believes the caregiver to be the only one capable of caring for him/her. The questions pertaining to embarrassment over ill relative's behavior, anger when around the ill relative, and negative effects on other relationships were the areas on the Zarit Burden Interview which the caregivers surveyed found to be least burdensome (Appendices J & K). This suggests that interventions should focus

on the areas of respite and familial and community support for the caregiver which would enable the caregiver to meet other family needs and lessen the dependence of the ill relative on the caregiver.

The mean Beck Depression Inventory score for the caregivers was 7.96 which is in the high normal range (see Appendix 0). Sixty-four percent (14) of the caregivers scored in the normal range while 36% (8) of those surveyed scored in the mild to moderate depression range (Table 12). Six of the caregivers scored in the mild depression range and two caregivers scored in the moderate depression range. None of the caregivers surveyed scored in the severe depression range. The relatively low overall Beck Depression Inventory scores could result from the high face validity of the instrument. Older adults might be less prone to report depressive symptoms than younger persons due to generational differences.

The Beck Depression Inventory categories which the caregivers most often rated as the most severe pertained to insomnia, fatigability, and loss of libido. This could easily be due to the increased age of the persons in the sample. Older persons tend to sleep less at night than do younger persons, fatigue easier, and suffer from a decrease in libidinal impulses. Those they rated as least severe were guilt, self-dislike, and suicidal ideation. As previously stated, interventions which focus on respite, familial and community support could lessen the caregivers feelings of fatigue and sleep disturbance.

Examination of the Hypotheses

Hypothesis 1 - Comparison of the Two Groups

Comparisons were made between caregivers of elders with Alzheimer's and caregivers of elders with chronic physical impairments in order to check for potential differences between the two groups. There were no statistically significant differences between caregivers of elders

with Alzheimer's disease and caregivers of elders with chronic physical impairments in the areas of caregiver age, ill relative age, length of relationship, and length of illness of impaired older adult. Both groups were essentially equal on these variables at the time of the survey. The only variable which tended to approach significance was caregiver age, which for caregivers of elders with Alzheimer's disease was 69.13, and 58.93 for caregivers of elders with chronic physical impairments. The reason for this difference is due to the relationship distribution between the groups. Forty-three percent of the caregiver's of elders with chronic physical impairments were caring for a parent while only 25% of the caregivers of elders with Alzheimer's disease were caring for a parent. This lowered the mean age for caregivers of elders with chronic physical impairments.

Hypothesis 2 - Burden

No significant difference was found between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in burden as measured by the Zarit Burden Interview.

Caregivers of elders with Alzheimer's Disease had a mean score of 31.88 on the Zarit Burden Interview which denotes mild to moderate burden. Caregivers of elders with chronic physical impairments had a mean score of 35.50 on the Zarit Burden interview which also denotes mild to moderate burden. These findings are consistent with those of Fitting, Rabins, Lucas, & Eastham (1986) who found no differences in burden in caregivers of dementia patients and caregivers of depressed patients.

The lack of a significant finding could be a result of the relationship distribution between the two groups. Forty-three percent of the caregivers of physically impaired older adults were caring for a parent while only twenty-five percent of caregivers of older adults with

Alzheimer's disease were caring for a parent. The caregivers caring for a parent might feel more burdened due to the likelihood that they have more responsibilities and interests outside the caregiving role than do the caregivers caring for a spouse. This could also be the reason that caregivers of physically impaired older adults scored slightly higher on the Zarit Burden Interview than did caregivers of older adults with Alzheimer's Disease.

Hypothesis 3 - Depression

No significant difference was found between caregivers of elders with Alzheimer's Disease and caregivers of elders with chronic physical impairments in depression as measured by the Beck Depression Inventory.

Caregivers of elders with Alzheimer's Disease had a mean score of 8.50 on the Beck Depression Inventory which is in the normal range just below the cutoff for mild depression. Caregivers of elders with chronic physical impairments had a mean score of 7.64 on the Beck Depression Inventory, which is in the normal range. In this study caregiver's of elders with Alzheimer's Disease were found to yield higher scores on the Beck Depression Inventory than did caregivers of elders with chronic physical impairments, though this difference was not statistically significant.

The slightly higher score on the Beck Depression Inventory for caregivers of older adults with Alzheimer's Disease could be due to the spousal/parental relationship difference. The spouse is losing the major relationship in his/her life which could result in feelings of hopelessness. The caregiver caring for a parent is often married and has other important relationships such as a spouse and children which would allow hope for the future. The caregivers who are caring for could experience less depression because of this.

Hypothesis 4 – Relationship Between Burden and Depression

A significant positive relationship ($r=.77$, $p<.05$) was found to exist between burden experienced by caregivers and depression. It was found that as scores on the Zarit Burden Interview rose, scores on the Beck Depression Inventory also tended to rise. This indicates that higher levels of burden experienced by caregivers of older adults are often accompanied by depressive symptoms. Stressful life events have been linked to depression (Myers, Lindenthal, Pepper & Ostrander, 1972; Lloyd, 1980; Paykel, Myers, Dienalt, Klerman, Lindenthal, & Pepper, 1969). Burden has been linked to depression in caregivers in several previous studies (Poulshock & Deimling, 1984; Pagel, Becker, & Coppel, 1985; Drinka, Smith, & Drinka, 1987). This relationship, though statistically significant, does not mean that burden causes depression or that depression causes burden.

Implications and Limitations of the Study

The fact that 73% of the caregivers surveyed were experiencing some amount of burden demonstrates that caregiving can be a stressful life situation. The association between high levels of burden and depression illustrates how at risk caregivers and the ill relatives in their charge are in our society today. The caregiver who feels burdened by the caregiving role and also becomes depressed can become a less effective caregiver. Depression can sap energy, strength, and the ability to concentrate, which are qualities that the caregiver needs to be in full possession of in order to provide optimum care for the chronically ill relative. This relationship between burden and depression has the potential to set into motion a downward spiral of depression and burden. The burdened caregiver could become depressed, which could leave the caregiver feeling even more burdened. Eventually the caregiver might be unable to

care for even their own basic needs, much less the needs of the ill older adult. Both the caregiver and the ill relative suffer when this takes place.

Networking between the medical community, mental health, churches, and the community could help alleviate some of the burden of the caregiver. Caregivers often feel isolated and trapped in the caregiving role (see Appendix I). Help from these areas in the form of support, respite, and education could lessen these feelings somewhat. Medical professionals could refer the caregiver to area mental health services, church run support groups, and link them with community support systems. A network of others who have been caregivers in the past would be extremely helpful. Those who have been caregivers in the past could be put in touch with those who have just assumed the caregiver role. This might help allow the caregiver to know what to expect and the problems which he/she might face.

The small sample size and nonrandom selection of subjects could have affected the results of this study. The subjects were all drawn from a population that is largely semi-rural. The lack of significant differences in caregivers of elders with Alzheimer's Disease and caregivers of chronically impaired older adults could be partially attributable to this fact. Small communities could provide the caregiver with more support from relatives and neighbors which live close by and with whom the caregiver is close. These informal support systems might to some degree provide the caregiver with varying degrees of respite and opportunities to vent some of the frustrations that arise from the responsibilities of caregiving. A comparison of rural and urban caregivers could provide information pertaining to differences in support systems of rural and urban caregivers.

Suggestions for Future Research

Further research is necessary to examine the effects of support and choice on burden and depression in caregivers. A comparison of rural and urban caregivers is needed in order to examine the possible differences in support systems. Several caregivers commented (Appendix I) on the information sheet attached to the questionnaire that religion played a substantial role in their attitudes toward caregiving. The role that religion plays in the acceptance of and the ability to handle the caregiving role needs exploration. Through phone contact with several subjects the author learned that few caregivers had ever been asked about their experience as a caregiver or informed about what to expect as a caregiver of a chronically impaired older adult. The ill older adult is the identified patient and therefore the needs of the caregiver could often go unaddressed. Services and information provided to caregivers by primary physicians should be examined. The type and amount of information given and its effect on depression and burden in caregivers needs to be investigated.

The small sample size obtained in the present study, due in part to the unwillingness of some area mental and physical health professionals to participate, could be a result of lack of information and education concerning caregivers. Education of area professionals could alleviate participation problems in future research studies. This education could be in the form of workshops or fact sheets containing information about caregivers and the problems they face. This might lead physical and mental health professionals to participate in a more active manner in research concerning caregivers.

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APPENDICES

APPENDIX A

Human Subjects Committee Approval Letter



Montana State University
Bozeman, Montana 59717

Office of the Vice President for Research

April 24, 1989

Research and Development (406) 994-2891
Grants and Contracts (406) 994-2381

Susan C. Barnett
719 1/2 S. 3rd Street
Bozeman, MT 59715

Dear Ms. Barnett:

Thank you for sending us a copy of the cover letter that you intend to send with your questionnaire. I see no problem with the research proposal that you are planning to do or with the informed consent procedures that are involved.

Sincerely,

A handwritten signature in cursive script that reads "Stephen J. Guggenheim". The signature is written in black ink on a white background.

Stephen J. Guggenheim, M.D., Chair
Human Subjects Committee

jfl

APPENDIX B

Letter to Area Physicians

719 1/2 S. 3rd
Bozeman, MT 59715
December 6, 1988

Dr.

Bozeman, MT 59715

Dear

I would greatly appreciate your assistance in a research project. I am currently a graduate student in Counseling and Human Development at Montana State University. As part of my graduation requirements I have taken extensive counseling theory courses, practicums, and internships. I have chosen to take the thesis option in the counseling program and am currently working on a thesis concerning caregivers of chronically impaired older adults.

The intent of this research project is to assess and compare burden and depression in caregivers of physically impaired older adults and caregivers of older adults with Alzheimer's Disease. I intend to send caregivers a survey which will contain a cover letter, general information sheet, the Beck Depression Inventory, Zarit's Burden Interview, and a stamped envelope in which to return the questionnaire. If a caregiver does not respond I intend to send them a second packet and cover letter. Confidentiality of subjects will be maintained by using a numbering code which will thereafter be used to identify subjects. The chairman of the Human Subjects Committee at Montana State University found this research project to be such low risk that it does not warrant full committee review.

I would greatly appreciate any help you might be able to give me in making contact with any caregivers of impaired older adults who might be your patients. I would like to call on you to discuss my research project and discuss any questions you may have. If you want to contact me I can be reached Saturdays, Sundays, and Mondays at 586-9698. Thank you very much for your time and consideration.

Sincerely,

Susan C. Barnett

Michael Waldo, PhD.
Assistant Professor

APPENDIX C

Questionnaire Cover Letter



Montana State University
Bozeman, Montana 59717

Unit of Human Development and Counseling
Department of Health and Human Development
Herrick Hall

Telephone (406) 994-3240

Hello,

I would greatly appreciate your help in a research study. This study is being conducted as part of my Master's thesis project for the Department of Counseling and Human Development in the College of Health and Human Development at Montana State University. By completing the enclosed questionnaire you will be providing valuable information on your experiences as a caregiver of an ill relative and helping me complete my degree. As a student counselor and a person who has had a chronically ill older relative I am keenly aware of the problems of caregivers. It is my hope that this research will shed some light on these problems and combined with other research in this area, eventually help lessen the burden of caregivers of impaired older adults.

Enclosed you will find a questionnaire and a stamped envelope in which to return the questionnaire. All of your responses will be kept strictly confidential. Your name is not attached to the questionnaire or return envelope. Please fill out the questionnaire as soon as possible and slip it in the return mail. You are under no obligation to complete this form, however, I would find it very helpful.

If you wish to learn the results of this study write your name and address in the space provided on the following page. Provision of this information will not threaten confidentiality. If you do not wish to receive information concerning the results of this study simply leave the following sheet blank.

Thank you very much for your time and effort.

Sincerely,

Susan C. Barnett

Michael Waldo, Ph.D.
Assistant Professor

APPENDIX D

Request for Information

**IF YOU WISH TO RECIEVE INFORMATION
CONCERNING THE RESULTS OF THIS STUDY
PLEASE INCLUDE THE FOLLOWING INFORMATION:**

PROVISION OF INFORMATION CONCERNING YOUR NAME AND ADDRESS
WILL NOT THREATEN CONFIDENTIALITY. YOUR NAME AND ADDRESS WILL BE KNOWN BY ME
ONLY AND WILL BE KEPT STRICTLY CONFIDENTIAL.

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP CODE _____

APPENDIX E
Information Sheet

Please answer the following questions about yourself and your ill relative.

1. Your age_____
2. Your sex_____
3. Age of your ill relative_____
4. Sex of your ill relative_____
5. Diagnosis of ill relative_____
6. How impaired do you feel your ill relative is? (Circle the number you feel indicates the level of impairment.)
 Little Impairment 1 2 3 4 5 Extremely Impaired
7. Nature of relationship (Spouse, parent, relative)_____
8. How close do you feel to your ill relative at the present time?
 (Please Circle the number you feel best represents how close you presently are to your ill relative.)
 Not At All Close 1 2 3 4 5 Very Close
9. How close do you feel you were to your ill relative before he/she became ill? (Please circle the number you feel best represents how close you were to your ill relative.)
 Not At All Close 1 2 3 4 5 Very Close
10. How long have you had a relationship with your ill relative (number of years)_____
11. How long has your relative been ill?_____
12. Present average yearly income_____
13. Average yearly income before you began caring for your ill relative_____
14. How many hours per week do you spend caring for your ill relative? _____
15. Do you feel like you had a choice in caring for your ill relative?
 (Yes, No) _____

Please Continue To The Next Page

16. How much freedom of choice do you feel you had in assuming the role of caregiver? (Circle the number you feel indicates your level of freedom of choice.)

Very much freedom of choice 1 2 3 4 5 Very little freedom of choice

17. Your occupation_____

18. Previous occupation of ill relative_____

19. Do you feel like you have the support of others_____

20. Who do you feel supports you emotionally (family, friends)_____

21. How much emotional support do you feel you get from others? (Circle the number you feel indicates the level of support you have.)

Very much support 1 2 3 4 5 Very little support

22. Can you leave your ill relative at home unattended? (Circle the number you feel indicates your ability to leave your ill relative unattended.)

Always 1 2 3 4 5 Never

23. Some people feel caring for their ill family member is a privilege which adds great meaning to their lives, others feel it is an unfair burden that they cannot escape. Many people have a combination of these feelings with some feelings stronger than others. Please try to rate your feelings over the period of time that you've cared for your ill relative on the following scale.

Meaningful privilege 1 2 3 4 5 Unfair Burden

Additional Comments:

Please Continue To The Next Page

APPENDIX F

Zarit Burden Interview

INSTRUCTIONS: The following is a list of statements which reflect how people sometimes feel when taking care of another person. After each statement indicate how often you feel that way; never, rarely sometimes, quite frequently, or nearly always. There are no right or wrong answers. Please circle the word and number which best represents your feelings.

1. Do you feel that your relative asks for more help than he/she needs?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
2. Do you feel that because of the time you spend with your relative that you don't have enough time for yourself?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
3. Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
4. Do you feel embarrassed over your relative's behavior?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
5. Do you feel angry when you are around your relative?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
6. Do you feel that your relative currently affects your relationship with other family members or friends in a negative way?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
7. Are you afraid what the future holds for your relative?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
8. Do you feel your relative is dependent on you?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always
9. Do you feel strained when you are around your relative?
0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

Please Continue To The Next Page

10. Do you feel your health has suffered because of your involvement with your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

11. Do you feel that you don't have as much privacy as you would like because of your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

12. Do you feel that your social life has suffered because you are caring for your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

13. Do you feel uncomfortable about having friends over because of your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

14. Do you feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

15. Do you feel that you don't have enough money to care for your relative, in addition to the rest of your expenses?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

16. Do you feel that you will be unable to take care of your relative much longer?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

17. Do you feel that you have lost control of your life since your relative's illness?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

18. Do you wish you could just leave the care of your relative to someone else?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

19. Do you feel uncertain about what to do about your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

Please Continue To The Next Page

20. Do you feel you should be doing more for your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

21. Do you feel you could do a better job in caring for your relative?

0. Never 1. Rarely 2. Sometimes 3. Quite Frequently 4. Nearly Always

22. Overall, how burdened do you feel in caring for your relative?

0. Not at all 1. A little 2. Moderately 3. Quite a bit 4. Extremely

Please Continue To The Next Page

APPENDIX G

Beck Depression Inventory

Read over the statements grouped with each letter, A through U. Pick out the statement within each group that best describes the way you feel today. Put an (X) next to the statement you have chosen in each group. If two or more statements in a group describe the way you feel equally well, put an (X) next to each one. Be sure to read over all of the statements in each group before you decide on one.

A.

- I do not feel sad.
- I feel blue or sad.
- I feel blue or sad all the time and I can't snap out of it.
- I am so sad or unhappy that it is quite painful.
- I am so sad or unhappy that I can't stand it.

B.

- I am not particularly pessimistic or discouraged about the future.
- I feel discouraged about the future.
- I feel I have nothing to look forward to.
- I feel that I won't ever get over my troubles.
- I feel that the future is hopeless and that things cannot improve.

C.

- I do not feel like a failure.
- I feel like I have failed more than the average person.
- I feel I have accomplished very little that is worthwhile or that means anything.
- As I look back on my life all I can see is a lot of failures.
- I feel I am a complete failure as a person.

D.

- I am not particularly dissatisfied.
- I feel bored most of the time.
- I don't enjoy things the way I used to.
- I don't get satisfaction out of anything anymore.
- I am dissatisfied with everything.

Please Continue To The Next Page

E.

- I don't feel particularly guilty.
- I feel bad or unworthy a good part of the time.
- I feel quite guilty.
- I feel bad or unworthy practically all the time now.
- I feel as though I am very bad or worthless.

F.

- I don't feel I am being punished.
- I have a feeling that something bad may happen to me.
- I have a feeling I am being punished or will be punished.
- I feel I deserve to be punished.
- I want to be punished.

G.

- I don't feel disappointed in myself.
- I am disappointed in myself.
- I don't like myself.
- I am disgusted with myself.
- I hate myself.

H.

- I don't feel I am any worse than anybody else.
- I am critical of myself for my weaknesses or mistakes.
- I blame myself for my faults.
- I blame myself for everything bad that happens.

I.

- I don't have any thoughts of harming myself.
- I have thoughts of harming myself but I would not carry them out.
- I feel I would be better off dead.
- I feel my family would be better off if I were dead.
- I have definite plans about committing suicide.
- I would kill myself if I could.

Please Continue To The Next Page

J.

- I don't cry any more than usual.
- I cry more now than I used to.
- I cry all the time now. I can't stop it.
- I used to be able to cry but now I can't cry at all even though I want to.

K.

- I am no more irritated now than I ever am.
- I get annoyed or irritated more easily than I used to.
- I feel irritated all the time.
- I don't get irritated at all at the things that used to irritate me.

L.

- I have not lost interest in other people.
- I am less interested in other people now than I used to be.
- I have lost most of my interest in other people.
- I have lost all my interest in other people and don't care about them at all.

M.

- I make decisions about as well as ever.
- I try to put off making decisions.
- I have great difficulty in making decisions.
- I can't make decisions at all anymore.

N.

- I don't feel I look any worse than I used to.
- I am worried that I am looking old or unattractive.
- I feel that there are permanent changes in my appearance and they make me look unattractive.
- I feel that I am ugly or repulsive looking.

O.

- I can work about as well as before.
- It takes extra effort to get started at doing.
- I don't work as well as I used to.
- I have to push myself very hard to do anything.
- I can't do any work at all.

Please Continue To The Next Page

P.

- I can sleep as well as usual.
- I wake up more tired in the morning than I used to.
- I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
- I wake up early every day and can't get more than 5 hours sleep.

Q.

- I don't get any more tired than usual.
- I get tired more easily than I used to.
- I get tired from doing anything.
- I get too tired to do anything.

R.

- My appetite is no worse than usual.
- My appetite is not as good as it used to be.
- My appetite is much worse now.
- I have no appetite at all anymore.

S.

- I haven't lost much weight, if any, lately.
- I have lost more than 5 pounds.
- I have lost more than 10 pounds.
- I have lost more than 15 pounds.

T.

- I am no more concerned about my health than usual.
- I am concerned about aches and pains or upset stomach or constipation.
- I am so concerned about how I feel or what I feel that it's hard to think of much else.
- I am completely absorbed in what I feel.

U.

- I have not noticed any recent change in my interest in sex.
- I am less interested in sex than I used to be.
- I am much less interested in sex now.
- I have lost interest in sex completely.

APPENDIX H

Thank You Sheet

PLEASE PUT THIS COMPLETED
QUESTIONNAIRE IN THE STAMPED,
ADDRESSED ENVELOPE THAT WAS PROVIDED.

THANK YOU VERY MUCH
FOR YOUR HELP WITH
MY RESEARCH PROJECT

IT IS VERY MUCH
APPRECIATED

APPENDIX I

Caregiver Comments

Please Note: The following comments were taken verbatim from the information sheets filled out by the caregivers. All spelling, grammar, and punctuation were supplied by the respondents.

1. If I were the ill person, there isn't anything my husband wouldn't do for me. We have been so blessed with good health most of our lives that this isn't too bad, especially since we have discovered that by going to Mexico every six months he can get treatments that have stopped the progress of Alzheimer's.
2. He is a very sensitive person. He sometimes becomes upset about something I say and will go off to the bedroom, close the door and weep. I get him to come to the living room. We sit together on our davenport with arms around each other. He will have forgotten what he is upset about but will cry it out anyway. Then he tells me how much he loves me, how much he needs me, and wonders why he cries. Before this illness he never cried. This often happens when I'm trying to get something done. This is the only really frustrating part of his behavior.
3. I care for both parents.
4. I love her, but when I go to visit children and grandkids, she calls everyday asking me to come home as my other sister doesn't like to come to her house. So not a good vacation if problem calls you everyday.
5. I was converted to Jesus Christ 4 yrs ago. I see taking care of my Mother as a way of honoring both her and God. When I saw something was wrong I asked God for the privilege of caring for her. She lived about 300 miles away and I had to talk her into coming for a visit and just kept her. She doesn't know what is wrong and frets to go home. That is hard to cope with sometimes. I was a very nervous individual before Christ came into my life and I can't imagine how I would have coped with all this without him.
6. My children and his sister's never offered to help not even long enough so I could really go take a bath or have a meal for myself I feel trapped I love my husband so much
7. Restrictions from traveler & going to place public where there is smoking-
8. Times she is fun to be with and one can learn from her experience and other times, very hard to deal with
9. Mom has always took care of me, now I feel it my turn & privilege. Mom need alot of personal care, I feel strongly about helping her. I've enjoyed it. I would not have it any other way!

10. Not only a privilege but also an obligation because of our marriage vows. Also it is a bible obligation. It is not an unfair burden.
11. He had 5 bypass open heart surgery Feb '88. He had infectio come in his incision. We couldn't leave the hospital until they learned the name of the infection. He was in hospital 82 days—in Billings and Bozeman. Came home May '88. Finally the infection quit the middle of Nov. '88. He is not an invalid.
12. Strong resentment! She did not raise me or my half brother. Too busy chasing around with an assortment of men. Now there is no one but me that will care for her.
13. Mom recently passed away at 96 yrs. Fed her twice a day, did her laundry, etc. Took my husband along. A year ago they were both in the home. Wasn't easy, but I wished I could do more. Had to give up. My husband got violent. For health reasons I had to give up. My husband had to go to _____ I go there as often as possible. He's been there four months.
14. He will be at home as long as I can physically care for him—with help.

APPENDIX J

Table 9. Zarit Burden Interview Item Means and Statistics

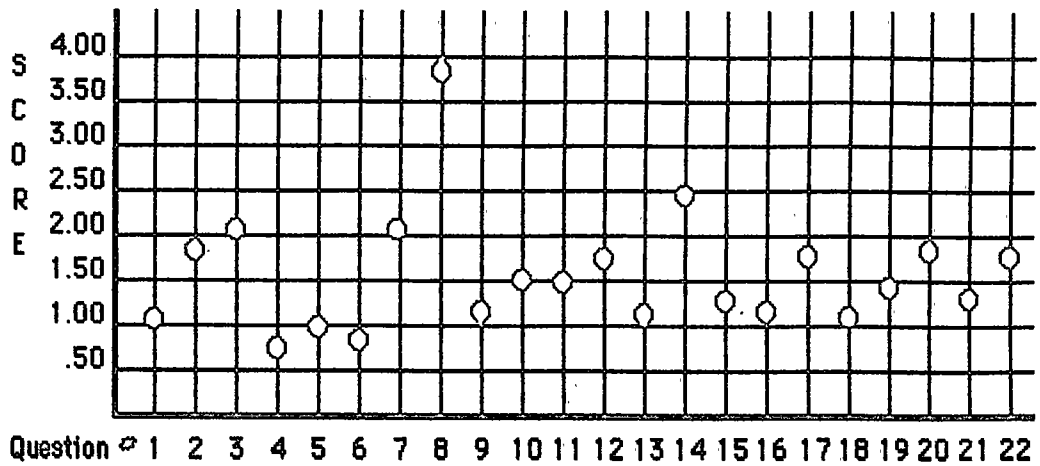
Table 9. Zarit Burden Interview Item Means and Statistics

QUESTION #	MEAN	ST. DEV.	N	ST. ERROR
1	1.045	1.046	22	.223
2	1.818	1.402	22	.299
3	2.091	1.151	22	.245
4	.773	1.020	22	.218
5	1.000	1.113	22	.237
6	.810	1.167	21	.255
7	2.091	1.269	22	.271
8	3.727	.550	22	.117
9	1.143	1.014	21	.221
10	1.500	1.300	22	.277
11	1.500	1.439	22	.307
12	1.773	1.510	22	.322
13	1.136	1.167	22	.249
14	2.455	1.595	22	.340
15	1.286	1.347	21	.294
16	1.182	1.053	22	.224
17	1.727	1.486	22	.317
18	1.091	1.411	22	.301
19	1.429	1.502	21	.328
20	1.810	1.365	21	.298
21	1.381	1.161	21	.253
22	1.773	1.232	22	.263

APPENDIX K

Figure 1. Zarit Burden Interview Item Means Graph

Figure 1. Zarit Burden Interview Item Means Graph



APPENDIX L

Table 10. Zarit Burden Interview Score Distribution

Table 10. Zarit Burden Interview Score Distribution

	Little or No Burden (0-20)	Mild to Moderate Burden (21-40)	Moderate to Severe Burden (41-60)	Severe Burden (61-88)	Total
Caregivers of Elders with Alzheimers	4	1	2	1	8
Caregivers of Elders With Physical Impairments	2	6	5	1	14
Total	6	7	7	2	22

APPENDIX M

Table 11. Beck Depression Inventory Item Means and Statistics

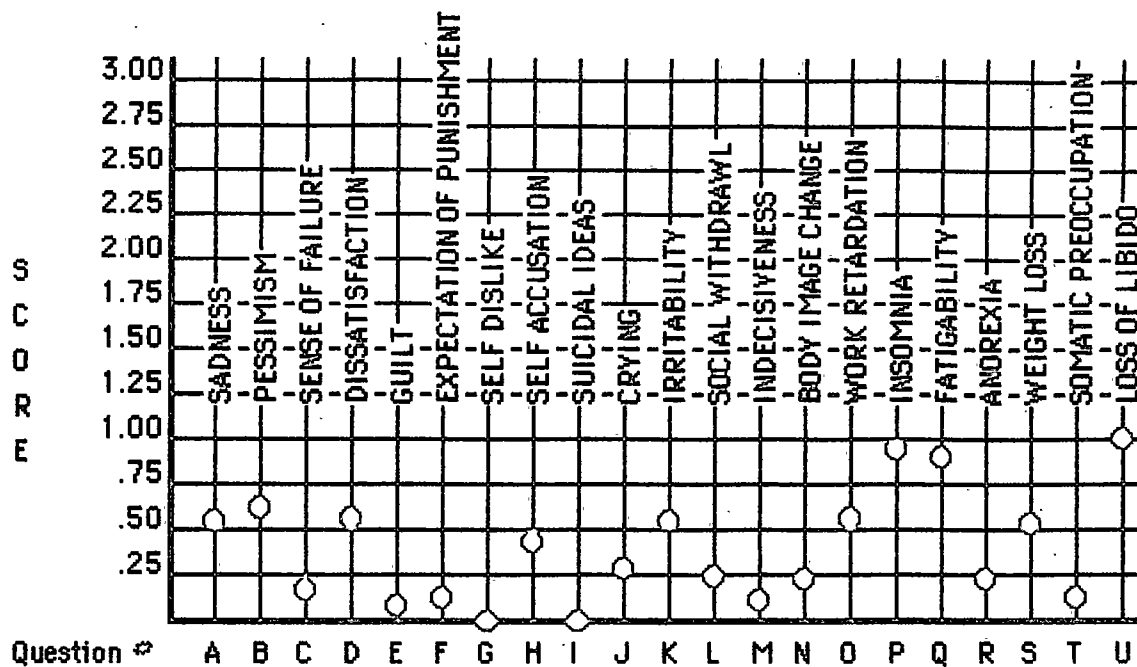
Table 11. Beck Depression Inventory Item Means and Statistics

QUESTION #	MEAN	ST. DEV.	N	ST. ERROR
A (Sadness)	.524	.601	21	.131
B (Pessimism)	.600	.681	20	.152
C (Sense of Failure)	.190	.680	21	.148
D (Dissatisfaction)	.524	.512	21	.112
E (Guilt)	.091	.426	22	.091
F (Expectation of Punishment)	.095	.436	21	.095
G (Self-Dislike)	.000	.000	20	.000
H (Self-Accusation)	.476	.750	21	.164
I (Suicidal Ideas)	.000	.000	21	.000
J (Crying)	.273	.465	22	.097
K (Irritability)	.545	.510	22	.109
L (Social Withdrawal)	.227	.528	22	.113
M (Indecisiveness)	.136	.351	22	.075
N (Body Image Change)	.238	.625	21	.136
O (Work Retardation)	.545	.596	22	.127
P (Insomnia)	.955	.999	22	.213
Q (Fatigability)	.864	.640	22	.136
R (Anorexia)	.227	.429	22	.091
S (Weight Loss)	.524	.981	21	.214
T (Somatic Preoccupation)	.182	.501	22	.107
U (Loss of Libido)	1.000	1.170	20	.276

APPENDIX N

Figure 2. Beck Depression Inventory Item Means Graph

Figure 2. Beck Depression Inventory Item Means Graph



APPENDIX O

Table 12. Beck Depression Inventory Score Distribution

Table 12. Beck Depression Inventory Score Distribution

	Normal (0-9)	Mild (10-15)	Moderate (16-23)	Severe (24-63)	Total
Caregivers of Elders With Alzheimers	5	1	2	0	8
Caregivers of Elders With Physical Impairments	9	5	0	0	14
Total	14	6	2	0	22

APPENDIX P

Information Sheet For Subjects

719 1/2 S. 3rd
Bozeman, MT 59715
August, 1989

Dear _____,

Thank you so much for your help with my research project. The information you provided when you filled out the questionnaire on caregiving was invaluable and hopefully will help other caregivers like yourself.

My research project investigated whether caregiving can be an emotionally stressful and difficult situation. I found that caregiving could be an emotionally stressful and difficult and that these stresses had effects on caregivers.

The results of this research study suggest that the stress of caregiving is related to experiencing difficult emotions. My research and the research of others suggests that talking with people about the stress of caregiving can relieve some of these difficult emotions.

If you are feeling that you need to talk with someone about the stresses of caregiving please contact someone you feel comfortable talking with. This could be a family member, a friend, your doctor, minister, or a professional counselor. Low cost counseling is available in Bozeman. Please feel free to contact me anytime if you have any questions concerning the questionnaire, the results of the research project, or if you would like the name of a counselor. My phone number is 586-9698.

Thanks again for your help. It was very much appreciated.

Sincerely,

Susan C. Barnett

Address and Phone Number

Susan C. Barnett
719 1/2 S. 3rd
Bozeman, Montana 59715
586-9698

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