

AN ABSTRACT OF THE THESIS OF

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Abstract approved _____

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Grounded in the life course perspective, this study examined stress among long-distance caregivers, asking whether stress levels vary by family relation to the care recipient or by geographic distance. A growing older adult population forecasts a corresponding need for caregivers. Although family members are the primary source of care for older adults, our population has seen high rates of mobility among both adult parents and their children, increasing the geographic distance between them. Given that the number of children per family has decreased, geographically distant children may be the only available family members to help frail, aging parents. Older adults without children available may have to rely on other family members, some of whom also live at a distance, in times of need.

Caregivers who live at greater distances may have more difficulties providing care to their loved ones than those who live closer, and they may face greater stress than caregivers who live nearby. Further, because the child-parent relationship reflects the strongest kin obligation, child caregivers may have a higher likelihood of caregiver

stress than nonchild caregivers. Research questions were addressed using data from a nationally representative survey of long-distance caregivers conducted in the Fall of 1996 by the National Council on Aging (NCOA) in collaboration with Matthew Greenwald and Associates of Washington, DC.

Child caregivers ($n = 98$), those whose care recipients are parents or step parents, were compared to nonchild caregivers ($n = 74$), those whose care recipients are caring for grandparents, siblings, other relatives, or friends. Caregivers in both groups provided comparable care, such as helping with decision making, advice and information, making needed arrangements, and providing emotional support. Hierarchical multiple regression was used to assess the amount of variance explained by relation type and geographic distance after controlling for caregiver income, caregiving intensity, gender, care duration, and care recipient health.

Bivariate relations suggested that caregivers with higher income give significantly less intense care, and that the passage of time may lessen stress for caregivers. Results of the multivariate analysis showed that relation to care recipient was a significant predictor of caregiver stress, with adult children showing higher levels of stress. Caregiver stress, however, was not greater for caregivers who lived farther away from care receivers. Using nationally representative data, the study documented the stress of long-distance caregivers, particularly adult

children, thus suggesting the need for additional research and possibly programs to alleviate that stress.

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Long-Distance Caregivers and Stress

by
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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

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Karen N. Kolb, Author

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DEDICATION

This work is dedicated to my grandparents, Dorothy and Edward Kolb, and Mary and Fred Wild, for their love and compassion, and for teaching me that age is just a number. They will live forever through my work and spirit.

This work is also dedicated to my mother and father, who were both long-distance caregivers, for their inspiration and guidance throughout my life.

Long-Distance Caregivers and Stress

Chapter 1 *Introduction*

This study focuses on the relationship between long-distance caregiving and stress. Although increased life expectancy has added healthy years to many older people's lives in our society, there has been an increase in the number of people with chronic illnesses, health-related disabilities, and functional impairments (Coward, Horne, & Dwyer, 1992; Zarit & Edwards, 1996). And with increases in life expectancy and needs for assistance, comes a corresponding need for caregivers of these populations (Himes, 1992). Defining caregiving is not straightforward because some caregiving tasks (such as financial support, advice, and social support) may parallel common relationship interactions. What best determines caregiving is not the nature of the task, but the recipient's nonoptional need for assistance with that task (Walker, Pratt, & Eddy, 1995).

During the late 20th century, lengthening periods of disability and dependence in later life resulted in heightened caregiving responsibility from family members (Dwyer, Folts, & Rosenberg, 1994; Marks, 1996; Pratt & Kethley, 1988), and decreased reliance on social services and government support (Walker et al., 1995). Family members are the primary source of care for older adults (Zarit & Edwards, 1996). Previous research has shown that as the age of an older impaired adult increases, so does the

likelihood that the caregiver will be a nonspouse, female relative (Dwyer & Coward, 1992; Himes, 1992; Stone, Cafferata, & Sangl, 1987). Men have also been found to give care in sizeable numbers, particularly when the measurement of caregiving is not limited to personal care (Marks, 1996).

Older adults report wanting to remain self-sufficient and in their homes as long as possible. Concomitantly, there has been increased mobility among both aging parents and their adult children, increasing the distance between them (Himes, 1992). Given the growth of the older population and the growth in numbers of elders who need some level of care, scholars and policymakers need to better understand the personal, familial, and geographic proximity factors that relate to caregiving (Rogerson, Burr, & Lin, 1997).

With the number of children decreasing for cohorts of older people, geographically distant children may become more important in caregiving for their parents (Brody, 1985; Lee, Dwyer, & Coward, 1990; Moss, Moss, & Moles, 1985). It is estimated that in America there are 6.7 million long-distance caregivers (Wagner, 1997).

For example, consider a 55-year-old woman who lives across the country from her aging parents. Since moving across the country to attend college, she has lived away from her parents for 30 years, although she visits them frequently. Her only sibling passed away 20 years ago, leaving her with primary responsibility for her parents. Although her parents still live

in their home and are relatively independent, her father is in declining health and her mother is having difficulty keeping up with his needs. He is now unable to manage finances, or do yard and house maintenance; and her mother rarely leaves the house because of his poor health. The mother now needs help with shopping, errands, and finances, as well as emotional support. Although financially able to help her mother, the daughter also has competing demands with her own family and career. She faces significant stress because of her parents' situation and her inability to be present to help her mother.

Alternatively consider a 63-year-old man caregiving from a distance for his widowed, older brother who lost his wife to heart disease three years ago. The brothers were born and grew up on a family farm, where the older brother has lived for his entire life. The younger brother moved to a larger city 40 years ago. He is middle class and married. The older brother suffers from macular degeneration and is slowly going blind. Although they live in the same state, the brothers are separated by 250 miles. Because of his declining vision, the widowed older brother no longer drives. He subsists on Social Security and returns on small investments. His income is barely above the poverty line, so he does not qualify for income assistance. Although neighbors occasionally check on the widowed brother, he needs assistance with housework, trips to the doctor and pharmacy, as well as social support. Although the younger brother is employed, he has neither

the means nor the time to support his brother. Despite the fact that he is not actively involved in caregiving tasks, the younger brother experiences stress, feeling that he has abandoned his brother.

Many researchers have called for increased attention to the issues of caregiving from a distance (Baldock, 2000; Mercier, Paulson, & Morris, 1989; Rogerson et al, 1997; Rossi & Rossi, 1990; Smith, 1998), the heterogeneity of caregiving situations and relationships (Dwyer, Folts, & Rosenberg, 1994; Stone et al., 1988), and the effects of proximity on family ties (DeWit, Wister, & Burch, 1988). There is a dearth of empirical research focused on long-distance caregiving, and a lack of policy or programmatic support for caregivers who care for their loved ones from a distance. Policies to support long-distance caregivers cannot be formulated without a better understanding of long-distance caregiving. Having a greater understanding of the nature of long-distance caregiving will help gerontologists identify some of the challenges and needs of this population of caregivers, and may provide a vehicle for designing programs to support them (Marks, 1996; Moen & Forest, 1995; Pratt & Kethley, 1988; Walker et al., 1995).

This research aims to contribute to the literature about this understudied group of caregivers. In doing so, I hope to identify long-distance caregiving issues that may be amenable to social policies and programs.

The following research questions guide this research:

1. Does long-distance caregiver stress vary by caregiver relation to the care recipient?
2. Are caregiver stress levels associated with greater distance from the care recipient?

Chapter 2 *Literature Review*

This research is theoretically grounded in a life course perspective, a multidisciplinary approach to individual and family development (Bengtson & Allen, 1993). The life course perspective recognizes that later life changes are influenced by earlier events and experiences, such as moving away from parents or other family members. Mobility has implications for the connections within and across generations and for the ability to carry out obligations to family members. Life circumstances and events also lead to particular family constellations. For example, decisions made early in adulthood not to marry or not to have children have consequences for support from family members in later life.

In the life course perspective, the focus is not on a family or an individual, but rather on the relationship between the two (Moen & Forest, 1995) and how their life changes and trajectories are linked (Allen, Blieszner, & Roberto, 2000). Parents and children are important to each other throughout the lifespan (Moss et al., 1985). A life course perspective draws attention to the importance of caregiving as a normative life event rather than as a crisis (Marks, 1996), allowing for the examination of linkages across interrelated lives (Allen et al., 2000). Because the life course perspective builds on the connection between the individual's life history and the life course of the family unit, it directs attention to variability in families and the aging process. It also affords an inclusive approach to

analysis of caregiving from a distance, stress of caregiving, and relation to the caregiver.

Demography of Family Dispersion and Family Size

The United States is a geographically mobile society. The United States Census Bureau (2001) reports long-distance moves to be most common among the highly educated, with the likelihood of moving decreasing with age until retirement. The nonpoor are more likely to move for work-related reasons, and the poor more likely to move for family related reasons (U.S. Census Bureau, 2001). The current school of thought regarding the influence of this geographic dispersion on families is that, although geographic dispersion influences kin interaction, contact continues regardless of distance but at reduced levels (Frankel & DeWit, 1989).

In their study using data from the National Survey of Families and Households, Rogerson, Weng, and Lin (1993) found the spatial separation between parents and their adult children was higher when children were older; that is, adult children in the 35 - 54 age group lived at significantly further distances from their parents than younger adult children. Spatial separation between older parents and their adult children is also greater among adult children who are unmarried, have high levels of education, have a prior history of mobility, and live in the Western United States. The last factor may be a reflection of this high mobility rate. Smith (1998) observed that life course transitions are typically related to moves for both

parents and their children, with children being more likely to move for reasons associated with education, employment, and their own children, and parental moves related to life course events such as retirement, health, or loss of a spouse.

Litwak and Longino (1987) theorized that elderly parents move for three reasons: (a) amenity (service-related) reasons, after retirement; (b) after the onset of a chronic illness or the death of a spouse, typified by a move to be closer to adult children or other caregivers; and (c) to institutional care where an adult child or other caregiver nearby can continue to provide support. Although not all older people migrate for these reasons, this classification system provides a framework for understanding the mobility patterns of older adults (Rogerson et al., 1997).

High migration rates coincide with the emergence of the *beanpole* family structure (Bengtson, Rosenthal, & Burton, 1990), an increase in the number of living generations and a decrease in individuals within each generation (Coward et al., 1992; Pratt & Kethley, 1988; Schoonover, Brody, Hoffman, & Kleban, 1988; Zarit & Edwards, 1996). Later ages for childbearing, smaller family size, and high levels of childlessness also affect current cohorts of men and women (Himes, 1992). The result is fewer kin available to care for older family members, especially given that adult children are now less likely to live in close proximity to their elderly parents (Frankel & DeWit, 1989; Himes, 1992).

Proximity and Kin Relationships

The relationship between geographic proximity and kin interaction is well documented (Litwak & Kulis, 1987; Rossi & Rossi, 1990). The majority of older people live near at least one of their children (Moss et al., 1985). In their study of elderly parents and their adult children, Lin and Rogerson (1995) found that most older adults have at least one child living within 10 miles, with their second-closest child usually within 30 miles. In their study of 161 parent-child dyads in Southern California, Greenwell and Bengtson (1997) reported the average distance between parents and their adult children to be 70 miles or more. Using the National Long Term Care Survey, Lee, Dwyer, and Coward (1990) found that parents in small cities or rural nonfarms tend to live more than 30 minutes from their children, concluding that these parents have less access to their children than those living in larger cities or on farms.

Lin and Rogerson (1995) documented that intergenerational proximity was approximately equal for women and men, with education and number of children the most important factors in predicting child-parent proximity. Parents who live further from their children tend to be more educated and to have higher incomes (Lin & Rogerson, 1995; Mercier et al., 1989). Some researchers have suggested that greater proximity between parent and adult child may be indicative of greater social distance (Frankel & DeWit, 1989; DeWit et al., 1988). Yet, other researchers (Moss et al.,

1985; Silverstein & Litwak, 1993; Zarit & Edwards, 1996) argue that solidarity and affective ties are maintained despite distance. As distance between parent and adult child increases, the face-to-face contact is replaced by more letter writing, telephone conversations, and infrequent overnight visits (DeWit et al., 1988). In particular, having fewer children has been found to encourage parents to maintain a closer relationship with a particular child, even if that child lives at a distance (Mercier et al., 1989).

Because proximity is negatively associated with social class, parents and children who live at greater distance have more resources to support travel, visits, and telephone contacts (Mercier et al., 1989). In contrast, lower income families may live nearby but lack the resources to maintain higher levels of contact. Furthermore, Litwak (1985) noted that when parents and children have little education, by virtue of their proximity children are able to provide more services. If parents have no proximal children, social interaction may be replaced by that with other peers, kin members, or other support networks (DeWit et al., 1988).

In a survey of 1,818 persons over age 65, Litwak (1985) found that although distance is an important factor in tasks that require a physical presence, (such as housekeeping), other forms of support (e.g., emotional and economic support) can be provided regardless of proximity between the caregiver and care recipient. In Litwak's view, the response to increased mobility and decreased proximity is the modified extended family model

through which family members maintain closeness or intimacy despite mobility and increased spatial separation (see also Baldock, 2000; Climo, 1992; Mercier et al., 1989). Litwak proposed that his modified extended family best reflects adult children of middle-class backgrounds whose occupations may be tied to geographic-specific labor areas (Smith, 1998).

Geographic Distance and Caregiving

Geographic distance does not pose an insurmountable obstacle to caregiving insofar as certain types of caregiving can be done from a distance (Climo, 2000; Litwak, 1985; Litwak & Kulis, 1987; Silverstein & Litwak, 1993; Zarit & Edwards, 1996). A limitation in the literature on physical distance is a lack of consensus as to what constitutes long-distance, with some researchers defining it as one hour or more away and others suggesting that distance maybe by less than one hour, less than one day's drive, more than one day's drive, and so on (DeWit et al., 1988).

Nevertheless, however long distance is defined, the modified extended family model suggests that in a modern, industrial society, proximity becomes less important to the contributions of caregivers, and less valid as a measure of kin strength (Litwak & Kulis, 1987). Rossi and Rossi (1990) found significant variations in the relationship between geographic distance and intergenerational support. Services such as household chores and help during an illness generally require greater proximity whereas comforting and giving gifts are much less affected by

distance (see also Silverstein & Litwak, 1993). Obviously, distance impedes the ability of caregivers to perform direct services. However, with the ability to send e-mail, pay bills and manage finances on-line, and communicate by telephone, caregivers are not required to be physically present at all times in order to provide some types of care (Silverstein & Litwak). Thus, long-distance caregiving may be problematic for caregivers of frail elderly persons who need instrumental care. The ability to provide socioemotional support (e.g., keeping in touch, giving gifts, cheering up) and bureaucratic assistance (bill paying and arrangements) is facilitated by travel and communication technologies.

Despite the utility of technology, however, long-distance caregivers face special challenges. They may have difficulty obtaining accurate information about their loved one's problems, deciding when intervention is necessary, and finding, initializing, and maintaining home help or other services (Zarit & Edwards, 1996). Arranging and monitoring care from a distance can be frustrating, and care recipients may not want to move to be closer to their caregivers (Zarit & Edwards, 1996). Such resistance can be especially challenging when the care recipient's care needs increase. At higher levels of need, caregiving clearly is facilitated by closing the distance between caregiver and care recipient (Rogerson et al., 1997).

To draw strong conclusions about the role of demographic and structural factors in caregiving requires comparing the experiences of

caregivers who have ill parents and are providing care to the experiences of children who have ill parents and are not caregiving (Himes et al., 1996).

Caregiving and Stress

Family caregiving is a challenging and stressful life event, with many caregivers reporting negative emotions, anger, and depression (Zarit & Edwards, 1996). Cicirelli (1988) demonstrated the amount of stress varies by caregiver, with some reporting higher stress for lower levels of caregiving and others reporting lower stress for higher levels of care. Family members differ in how they respond to caregiving stressors, their willingness and abilities to take on caregiving tasks, and their feelings toward their loved ones (Zarit & Edwards, 1996). Adult children may report stress over not doing enough for their parents, feeling guilt even when caregiving as much as possible, whereas others may perform a tremendous amount of caregiving without much stress (Brody, 1985).

Regardless of these differences, most adult children experience some amount of stress when they provide care to an elderly parent (Brody 1985; Cicirelli, 1988). Cicirelli postulated that stress may be caused by filial anxiety, a state of worry about the anticipated decline of a loved one and the caregiver's ability to meet the care recipient's needs.

Gender. Some research (see Walker, Pratt, & Eddy 1995 for a full review) has indicated marked differences in caregiving stress between women and men, with women reporting more stress. Gerstel and Gallagher

(2001) found that men spent roughly one-third as much time helping parents compared to women. Brody (1985) suggested that guilt in women caregivers results from higher expectations of performance in the caregiving role. Other research also has suggested that caregiving may be less stressful for women because of the gendered nature of caregiving itself, with women typically doing tasks that are in fact often considered women's work and therefore believed to be less stressful (Walker, 1992). Still other studies report similar caregiving outcomes for women and men (Baldock, 2000; Starrels, Ingersoll-Dayton, Dowler, & Neal, 1997). Clearly, there is a lack of consensus on stress outcomes by gender.

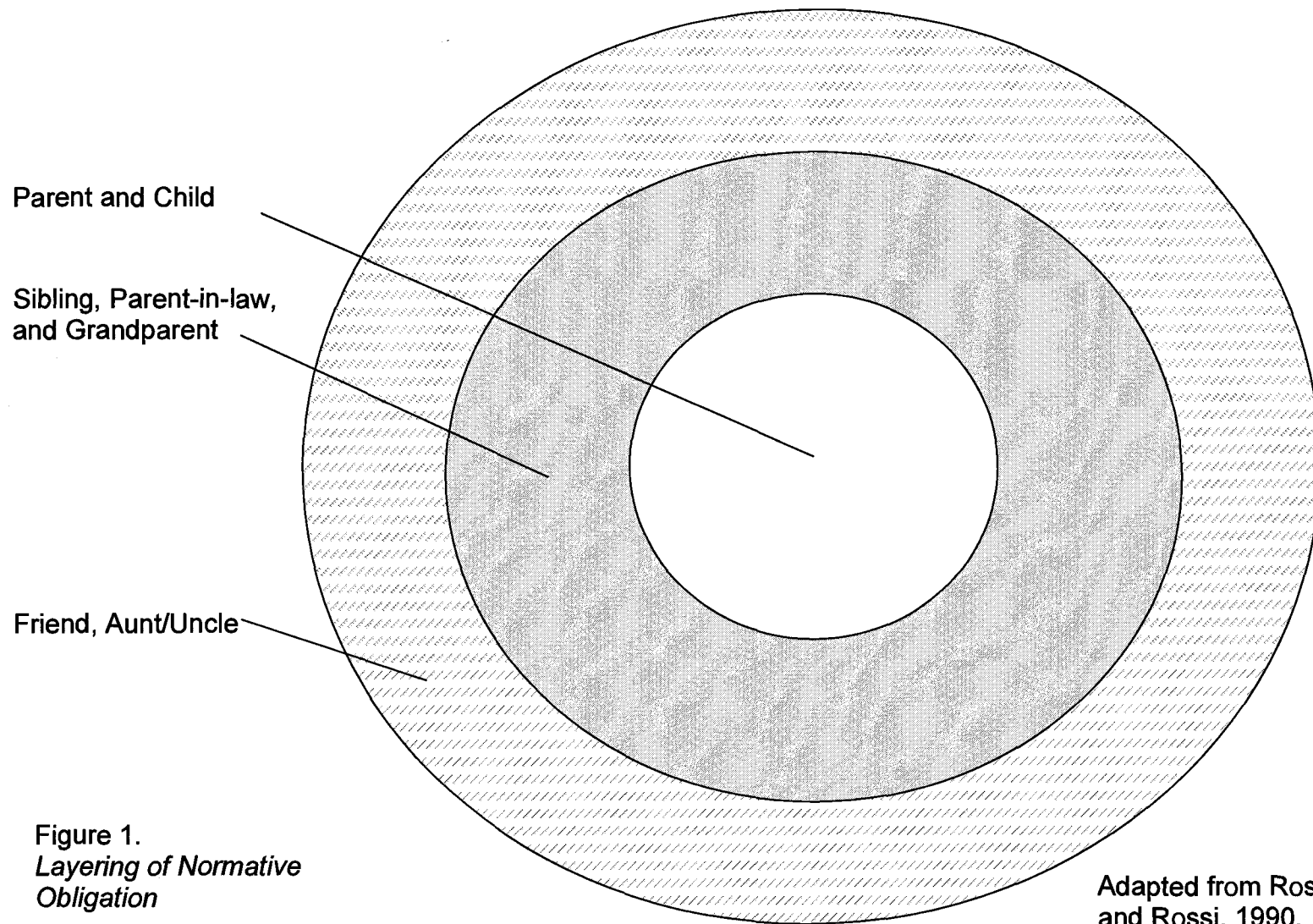
Distance. Commuting appears to add stress for the caregiver. In their research on the work-family balance Joseph and Hallman (1996) found that long commutes to either work or to care for a parent resulted in high levels of stress, negative job effects, and interference in work and family life. It is possible that stress may be higher for long-distance caregivers, who worry about their ability to give care from a distance, who must travel to see their loved one, and who must be able to afford the expenses incurred giving care from a distance, such as telephone bills, airfare, or time from work or away from family.

Nonchild Caregivers. Research has shown that family members' obligations are stronger to parents, children, and spouses than they are to other family members (see Figure 1, Rossi & Rossi, 1990). Obligations to

siblings, stepchildren, grandparents, grandchildren, and parents-in-law are similar to each other and less than those to in parental and spousal dyads. As is true for spouse caregivers, sibling, aunt, and other caregivers tend to be older than adult child caregivers and thus they are likely to have characteristics similar to other older caregivers. Although much literature pertains to caregiving and caregiver stress, little empirical research has focused on caregivers who are neither spouses nor adult children.

In their comparison of the experiences of sibling and spousal caregivers, Mui and Morrow-Howell (1993) found both groups to be at risk for emotional strain, with no statistical differences between the two. They reported that sibling caregivers experienced high levels of role strain, and were more disturbed by conflicts to caregiving from competing demands, whereas spousal caregivers were more disturbed by duration of caregiving.

Research on children-in-law as caregivers (Peters-Davis, M. Moss, & Pruchno, 1999) has found that the quality of the caregiver's relationship to the care recipient is more important than is the relation type in predicting caregiving outcomes such as stress. Merrill (1993) reported that in comparison to care recipient's daughters, daughters-in-law assisted with a similar number of caregiver tasks and in some cases assumed the role of primary caregiver, yet they provided fewer hours of care than daughters. These findings suggest that other family caregivers may experience similar



stresses to adult child caregivers, although this conclusion is based, at best, on scant evidence.

Long-Distance Caregiving

Schoonover and her colleagues (1988) interviewed geographically distant children whose elderly, widowed mother received primary care from a female sibling. Long-distance caregiving was reported to be a phenomenon of middle-class offspring, children considered socially mobile compared to their parents. Defining geographically distant as more than 50 miles from the mother, this qualitative study explored problems faced by sibling pairs, one geographically distant from their parent and the other in close proximity to the parent and providing direct care. Schoonover and her colleagues found that the emotional bonds that link adult offspring to their parents transcend distance. Distant siblings expressed guilt over not doing more to help their proximal siblings. This study supported previous and subsequent research that geographically distant caregivers maintain a high level of interest in their parents, and have a high incidence of writing, phoning, and visiting regardless of disruptions that may occur in their own families. However, these distant sisters also reported feelings of strain and intersibling tensions.

In a study of long-distance caregiving among transnational migrants, Baldock (2000) also argued that distance is not an inhibitor to caregiving. Baldock noted the paradoxical nature of intergenerational research on

caregiving and proximity. On the one hand, geographic proximity is not considered necessary to maintain close family bonds. On the other hand, researchers and practitioners have a tendency to presume that caregiving is a task requiring close proximity, and imply that parents without children close by are deprived of their children's support. In qualitative interviews with 12 adult children whose aging parents lived in another country, Baldock explored the frequency of contact and caregiving experiences. She drew four conclusions. First, adult children reported regular patterns of contact with their parents that were consistent in frequency and regularity, though methods of contact varied over time. Second, visit frequency increased as parents aged and after the parent was widowed. Third, these children relied on siblings back home for support and maintained ties with close relatives or neighbors whom they could contact in times of need. Fourth, all participants had at one time asked their parents to move closer to them. Issues raised by these long-distance caregivers were insufficient frequency of visits, sadness over the lack of proximity, and feelings of guilt.

In their study on work and family in Canada, Joseph and Hallman (1998) found that, for women, time commitment to caregiving was not influenced by distance, whereas it was for men. Joseph and Hallman's findings confirm that not only do men spend less time on average providing care, they also are more likely to limit their caregiving because of distance

and to say that distance affects their ability to give care (Schoonover et al., 1988).

In another Canadian study, Joseph and Hallman (1996) found that long-distance caregivers were likely to leave work for extended periods to deal with caregiving crises, and to do so on short notice. The likelihood of taking sick days when not sick increased when the elder care recipient lived more than 120 minutes away or when child care was combined with eldercare. In further analysis of this sample, Hallman and Joseph (1999) documented that women caregivers show evidence of greater engagement to caregiving and a greater commitment to travel to give care than male caregivers.

A pilot study of long-distance caregiving funded by the National Academy on Aging and the Pew Charitable Trust, (Wagner, 1997; Wagner & Neal, 1997) described the typical long-distance caregiver as a woman, 46 years old, living with a spouse, with a college degree, whose household income was \$54,000 a year, who was employed full time, and who was caring for her mother. The typical mother lived four hours away and was 78-years old. The mother was in fair health, lived with her husband, and had enough income to cover basic needs. For the typical caregiver, long-distance caregiving began with the gradual worsening of a chronic condition. Although not the *primary* caregiver, the daughter provided emotional support, advice, and information to her mother, supporting Litwak

and Kulis's research (1987). When able to visit, the daughters assisted with errands and shopping.

In this pilot study (Wagner, 1997), those in the position of primary caregiver assisted with decision making, arranging for services, and helping with legal and financial problems. Primary caregivers were less likely than other caregivers to share the responsibility with others, and were more likely to assist with monthly expenses, management of services, and paperwork. Most long-distance caregivers (Wagner) received assistance with caregiving from other family members or from friends and neighbors. Half of the care recipients reported receiving formal care from a health service or volunteer organization, a finding also supported by Silverman and Litwak (1993).

This Study

With the growing older adult population comes a corresponding increase in the experience of caregiving. Yet, greater geographic mobility and smaller family size may decrease the likelihood of an individual having any children nearby to provide care. Distant caregivers may have difficulties providing care to their loved ones, and as a result, may experience caregiver stress. Because the child-parent relationship reflects the strongest kin obligation (Rossi & Rossi, 1990), child caregivers may have a higher likelihood of caregiver stress than nonchild caregivers.

This study examined stress levels among long-distance caregivers, asking whether stress levels vary by family relationship to the care recipient or by geographic distance. Long-distance caregiving was hypothesized to be more stressful for adult child caregivers than for nonchild caregivers. It was also hypothesized that caregiving stress would be greater for caregivers living a greater distance from care receivers compared to caregivers who are more proximal to the care recipient.

Control Variables

Five control variables are used in this study: gender, income, care intensity, caregiving duration, and care recipient's health. The findings on the effect of gender on caregiving are mixed. Gender is not strongly associated with intergenerational proximity (Lin & Rogerson, 1995), although some research (Joseph & Hallman, 1998) found that men were more likely to limit their time commitment to caregiving because of distance. Men and women may support caregiving activities in different ways (Matthews, 1995; Walker, 1992). Because of the inconclusive nature of the literature on gender and caregiving, caregiver gender was a control variable in this study.

A second control variable is income. Income is used as a proxy for education and socioeconomic status of the caregivers. Education has been found to an important factor in predicting parent-child proximity (Lin & Rogerson, 1995). Many activities associated with long-distance caregiving

may be directly tied to the financial status of the caregiver (DeWit & Frankel, 1989). For example, compared to lower income individuals, individuals with higher income are likely to have the resources to more frequently travel, make long distance calls, and use computers or cellular phones to facilitate communications. Although the price of air travel has dropped significantly over the last decades, it remains a barrier for certain economic groups. Previous research has also indicated that higher levels of income are associated with lower levels of anticipatory caregiving anxiety (Laditka, S. & Pappas-Rogich, 2001). To account for the effects of financial inequities in the sample, caregiver income was a control variable in the analysis.

Caregiver stress may be linked to care intensity. Prior research has indicated that, for women, short, intense periods of care are not affected by geographic proximity and occur regardless of distance from their parents (Himes et al, 1996). Some research has suggested that care intensity is not related to negative caregiver outcomes (Stoller & Pugliesi, 1989). Nevertheless, to focus on the influence of geographic distance and type of relationship on caregiver stress, the analysis controlled for care intensity or hours of care.

The length of time, or months caregiving, may also influence the amount of caregiver stress. Research has suggested mixed effects of the duration of time (Moen, Robinson, & Dempster-McClain, 1995). As the time

spent caregiving increases, so may the needs of the care recipient (Stoller & Pugliesi, 1989), possibly causing caregivers to make accommodations in their own lives in order to facilitate caregiving, with potentially negative consequences (Hoyert & Seltzer, 1992). These changes may affect the stress levels of the caregiver. The passage of time may elicit positive, negative, or no effects on caregivers. To focus on the relation between the caregiver and the care recipient, and the distance between them, the analysis controlled for months caregiving.

Finally, care recipient health status may influence the amount of stress experienced by the caregiver. Previous research has indicated that poor physical health status of the care recipient is correlated with negative physical health outcomes for the caregiver (O'Rourke & Tuokko, 2000). Yet, other research (see Walker et al., 1995 for a full review) notes the inconclusive nature of the literature on the relation between care recipient health status and caregiver outcomes. Thus care recipient health status was controlled for in this analysis.

Chapter 3 *Method*

Sample

This study addressed two research questions: (a) Does long-distance caregiver stress vary by caregiver relation to the care recipient? and (b) Are caregiver stress levels associated with caregiver distance from the care recipient? This study utilized a nationally representative telephone survey conducted in the Fall of 1996 by the National Council on Aging (NCOA) in collaboration with Matthew Greenwald and Associates of Washington, DC. Funded by the Pew Charitable Trust, the data were collected using an interview protocol designed by NCOA staff and staff at Matthew Greenwald and Associates. Matthew Greenwald and Associates managed the telephone survey process as well as the focus group interviews that were created to guide the design of the survey and the development of operational definitions.

Similar to other studies (Wagner, 1997) the operational definition of caregiver was a respondent having responsibilities for helping another with physical or mental limitations (e.g., arranging, providing, or paying for services including provision of advice or information, financial, insurance, legal, or tax services, health care, household assistance, or personal care). The operational definition of long distance was determined by a focus group of caregivers who reported a long-distance caregiver to be one who lives an hour or more from the care recipient. This distance is thought to impede

some of the chores and assistance associated with caregiving. The operational definition of older adult is 55 years and older.

Survey participants were required to (a) have had caregiving responsibilities within the past 12 months, (b) have cared for a person age 55 or older, (c) have had to travel one hour or more to reach the care recipient, and (d) be age 18 or older. Approximately 10,000 respondents of a monthly omnibus survey were screened regarding their caregiving responsibilities; and 200 agreed to participate in the detailed long-distance caregiver survey to be conducted at a later date. The exact methods of obtaining these 200 survey participants, the refusal rates, and the follow-up date for the survey are unknown, creating serious limitations in this data set. Nevertheless, the survey is theoretically representative of the adult population of long-distance caregivers in the United States in 1996.

Child-parent and nonchild-relative dyads were drawn from the total of long-distance caregivers ($N = 200$). Child-parent dyads consist of caregivers whose care recipients were parents or step parents of the caregiver; nonchild-relative dyads consist of grandparents, brothers or sisters, other relatives, and friends of the caregiver. There were 106 adult child and 77 nonchild caregivers. Seventeen caregivers to spouses, children, spouse's parents or step-parents, and others were excluded. From this subset, a further subset of similar caregivers was created. These caregivers were all providing care that was comparable in nature such as helping with decision

making, advice and information, making needed arrangements, and providing emotional support. The final sample ($n = 172$) consisted of 98 adult child caregivers and 74 nonchild caregivers.

Sociodemographic Characteristics

Table 1 contains the sociodemographic characteristics of the sample ($N = 172$) by caregiver relation to care recipient. The modal caregiver in this sample was educated beyond high school, was employed full-time, was non-Hispanic White, and was married or living with a partner. Most are women. The modal child caregiver was age 49, and the average care recipient was 77. The modal nonchild caregiver in this sample was educated beyond high school, was employed full time, was non-Hispanic White, and was married or living with a partner. Most were women. The average age of nonchild caregivers was 45, and the average age of care recipients was 80. The mean ages and standard deviation of the caregiver and care recipient characteristics are also reported in Table 1.

When asked about their greatest unmet needs, caregivers ($N = 152$) described a variety of concerns ranging from the lack of time and money to provide care for their loved one to difficulty in making care arrangements. For this variable, responses were collapsed into categories with similar themes, reported in Table 2. Consistent with previous research (Zarit & Edwards, 1996), caregivers reported numerous challenges providing care.

Common responses for both adult children and nonchild caregivers were problems related to geographic distance. These responses suggest that being a long-distance caregiver was problematic for both groups of caregivers, and confirms the importance of this study. Contrary to some research (Baldock, 2000), then, proximity may impact the caregiver's ability to provide care.

Table 2 also details caregiver reports ($n = 150$) of the single most stressful part of the caregiving experience. Respondents described an assortment of concerns, ranging from relationships with other family members to inability to provide enough caregiving support. For adult child caregivers, a common stressor was problems related to distance, whereas this category was ranked the second most stressful part of the experience for nonchild caregivers. This response suggests that caregivers found distance to care recipient to be a formidable obstacle to the provision of care. Negative emotions associated with caregiving ranked as the most stressful part of the caregiving experience for nonchild caregivers.

Measures

Control variables. Two variables measured income. The first distinguished those whose annual household income was \$75,000 or above from those whose annual household income was below \$75,000. Those in the lower-income group were asked a follow-up question, with response choices ranging from 1 (< \$10,000) to 8 (\$50,000 - \$74,999). Those whose

Table 1

Sociodemographic Characteristics of Long-Distance Caregiving Sample

| Variable | Adult child | | Nonchild | | Total | |
|--------------------|-------------|--------|----------|--------|----------|--------|
| | <i>N</i> | (%) | <i>N</i> | (%) | <i>N</i> | (%) |
| Care recipient | | | | | | |
| Gender | | | | | | |
| Men | 38 | (38.8) | 25 | (33.8) | 63 | (36.6) |
| Women | 60 | (61.2) | 49 | (66.2) | 109 | (63.4) |
| Caregiver | | | | | | |
| Education | | | | | | |
| ≤ high school | 20 | (20.4) | 23 | (31.1) | 43 | (25.0) |
| Some college | 31 | (31.6) | 18 | (24.3) | 49 | (28.5) |
| ≥ college graduate | 47 | (48.0) | 33 | (44.6) | 80 | (46.5) |
| Employment status | | | | | | |
| Full-time | 66 | (67.3) | 40 | (54.1) | 106 | (61.6) |
| Part-time | 6 | (6.1) | 8 | (10.9) | 14 | (8.2) |
| Not employed | 26 | (26.5) | 26 | (35.0) | 52 | (30.2) |
| Ethnicity | | | | | | |
| White non-Hispanic | 85 | (86.7) | 59 | (79.7) | 144 | (83.7) |
| Other | 13 | (13.3) | 14 | (18.9) | 27 | (15.7) |
| Refused to respond | | | 1 | (1.4) | 1 | (.6) |

(Table 1 continues)

| Variable | Adult child | | Nonchild | | Total | |
|------------------------------|-------------|-----------|----------|-----------|----------|--------|
| | <i>N</i> | (%) | <i>N</i> | (%) | <i>N</i> | (%) |
| Gender | | | | | | |
| Men | 43 | (43.9) | 33 | (44.6) | 76 | (44.2) |
| Women | 55 | (56.1) | 41 | (55.4) | 96 | (55.8) |
| Marital status | | | | | | |
| Married, living with partner | 67 | (68.4) | 53 | (71.6) | 120 | (69.8) |
| Not married | 31 | (31.6) | 21 | (28.4) | 52 | (30.2) |
| | Adult child | | Nonchild | | | |
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | |
| Caregiver age | 48.53 | 10.46 | 45.00 | 16.90 | | |
| Age of care recipient | 77.29 | 7.85 | 79.66 | 10.33 | | |

Note. *N* = 172. Because of rounding error, percentages may not total 100.

Table 2

Greatest unmet needs of caregiver and the most stressful part of caregiving

| Variable | Adult child | | Nonchild | | Total | |
|-------------------------------------------------------|-------------|--------|----------|--------|----------|--------|
| | <i>N</i> | (%) | <i>N</i> | (%) | <i>N</i> | (%) |
| <i>Caregiver's greatest unmet need^{a, b}</i> | | | | | | |
| Problems related to geographic distance | 36 | (40.0) | 23 | (37.0) | 59 | (36.4) |
| Insufficient instrumental resources to provide care | 20 | (22.2) | 14 | (22.5) | 34 | (22.3) |
| None | 13 | (14.4) | 13 | (21.0) | 26 | (17.1) |
| Negative emotions | 7 | (7.8) | 3 | (4.8) | 10 | (6.2) |
| Caregiver's own health concerns | 5 | (5.6) | 2 | (3.2) | 7 | (4.6) |
| Problems with care recipient's response | 5 | (5.6) | 1 | (1.6) | 6 | (3.9) |
| Concern over caregiving quality | 2 | (2.2) | 1 | (1.6) | 3 | (2.0) |
| Interference with social/work/family life | 2 | (2.2) | 2 | (2.3) | 4 | (2.6) |
| Other | | | 3 | (4.8) | 3 | (2.0) |

(Table 2 continues)

| Variable | Adult child | | Nonchild | | Total | |
|-------------------------------------------------------------|-------------|--------|----------|--------|----------|--------|
| | <i>N</i> | (%) | <i>N</i> | (%) | <i>N</i> | (%) |
| <i>Single most stressful part of experience^c</i> | | | | | | |
| Problems related to geographic distance | 23 | (25.5) | 17 | (28.3) | 40 | (26.6) |
| Negative emotions | 21 | (23.3) | 22 | (36.6) | 43 | (28.6) |
| Insufficient instrumental resources to provide care | 11 | (12.2) | 4 | (8.0) | 15 | (10.0) |
| Other | 11 | (12.2) | 6 | (10.0) | 17 | (11.3) |
| Interference with social/work/family life | 9 | (10.0) | 2 | (3.3) | 11 | (6.8) |
| Problems with the care recipient's response | 8 | (8.8) | 6 | (10.0) | 14 | (9.3) |
| Don't know | 7 | (7.8) | 2 | (3.3) | 9 | (6.0) |
| Refused to respond | | | 1 | (1.7) | 1 | .6 |

^a In terms of caregiving. ^b *n* = 152 (90 adult child caregivers, and 62

nonchild caregivers). ^c *n* = 150 (90 adult child caregivers, and 60 nonchild caregivers). Because of rounding, percentages may not total 100.

income was $\geq \$75,000$ were recoded to 9. Intensity of caregiving was measured in hours of time spent on caregiving each month. Gender of caregiver was scored as: 1 = *male*, 0 = *female*. Caregiving intensity was measured as the average number of hours per month of time spent caregiving. Responses ranged from 1 hour to 600 hours per month. Scores higher than three standard deviations from the mean were recoded to the highest included score. For example, if 400 hours is three standard deviations above the mean, all scores above 399 were recoded to 399. Care duration was measured as months caregiving. Care recipient's health was a single-item measure with response categories ranging from 1 (*poor*) to 4 (*excellent*).

Predictor variables. Adult child and nonchild caregivers were coded as 1 and 0, respectively. Distance was measured both in miles from the care recipient and hours of travel time. The two variables were highly correlated ($r = .66$). To avoid potential multicollinearity problems, it was decided to measure distance as hours of travel time from the care recipient.

Outcome variable. Caregiving stress was a single-item measure with response categories ranging from 1 (*not stressful*) to 5 (*very stressful*).

Missing Data

There were missing responses to the variables of care intensity ($n = 4$), income ($n = 9$), months caregiving ($n = 1$), care recipient's health status

($n = 24$), and distance ($n = 1$). These responses were imputed using Missing Value Analysis (MVA) (SPSS, 2002).

Study Variables

Both caregiver samples were compared on the control, predictor, and outcome variables. Table 3 reports the means and standard deviation of the study variables, with significant differences between adult child and nonchild caregivers indicated. The two groups were remarkably similar. Care recipient health was roughly equal across groups, with adult child caregivers reporting a mean of 1.74 ($SD = .70$) and nonchild caregivers reporting a mean of 1.74 ($SD = .60$). This suggests that the care recipients of the two groups were of similar health status. Although it appeared that adult child caregivers reported greater care intensity ($M = 45.68$, $SD = 58.06$) than nonchild caregivers ($M = 32.29$, $SD = 46.94$), the difference was not significant.

Months caregiving was not significantly different between the two groups ($M_{\text{adult child}} = 54.44$; $SD = 58.52$; $M_{\text{nonchild}} = 62.22$; $SD = 82.84$). Adult child caregivers reported similar geographic distance ($M = 3.70$; $SD = 3.14$) from care receivers as did nonchild caregivers ($M = 4.27$; $SD = 4.22$) as well as similar average annual incomes ($M_{\text{adult child}} = 6.62$; $SD = 2.03$; $M_{\text{nonchild}} = 6.34$; $SD = 2.17$). The two groups differed in one respect; adult child caregivers reported significantly higher stress ($M = 3.04$, $SD = 1.29$), $t = -2.954$, $p < .001$, than nonchild caregivers ($M = 2.49$, $SD = 1.1$).

Table 3

Study variables

| Variable | Adult child | | Nonchild | |
|----------------------------|---------------------|-----------|----------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Income | 6.62 | 2.03 | 6.34 | 2.17 |
| Care intensity | 45.68 | 58.06 | 32.29 | 46.94 |
| Months caregiving | 54.44 | 58.52 | 62.22 | 82.84 |
| Care recipient's health | 1.74 | .70 | 1.73 | .60 |
| Geographic distance (hrs.) | 3.70 | 3.14 | 4.27 | 4.22 |
| Caregiver stress | 3.04 ^{***} | 1.29 | 2.49 | 1.11 |

Note. *N* = 172.

^{***}*p* < .001.

Analysis

Hierarchical multiple regression was performed to assess the amount of variance explained by relationship type and distance (Keppel & Zedeck, 1989). The first model examined the effect of the control variables (caregiver income, caregiving intensity, gender, duration of caregiving, and caregiver health status). The effect of the predictor variables was assessed in the additional models. Relationship type was added in the second model, and geographic distance was added in the third.

Chapter 4 *Results*

Intercorrelations

Table 4 presents Pearson correlations for study variables, with significant findings noted. Nearly all correlations were negligible but four were significant. Lower income was correlated with increased care intensity ($r = -.352, p < .001$). As yearly income rose, the amount of care given to the care recipient decreased. Surprisingly, care intensity was negatively correlated with duration of caregiving ($r = -.177, p < .05$); that is, care intensity decreased as the length of time caregiving increased. Consistent with previous research, distance was positively correlated with income ($r = .181, p < .01$), with greater distance indicative of greater income. Finally, the stress of caregiving was positively correlated with the caregiver dyad ($r = .221, p < .005$); in that caring for a parent was more stressful than caring for others.

Regression Analyses

Table 5 depicts the results of the hierarchical regression analysis, reporting coefficients, standardized beta weights, and the variance explained by each of the three models. Results are discussed in the order that the regressions were performed.

Control variables. The first model (see Table 5, Model 1) examined the role that the control variables of gender, income, care intensity, caregiving duration, and

Table 4

Intercorrelations of Study Variables

| Measure | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|--------------------------|------|---------|-------|------|------|-------|------|----|
| 1. Gender | -- | | | | | | | |
| 2. Income | .14 | -- | | | | | | |
| 3. Care intensity | -.03 | -.35*** | -- | | | | | |
| 4. Caregiving duration | .05 | .06 | -.18* | -- | | | | |
| 5. Care recipient health | .02 | .00 | -.03 | .12 | -- | | | |
| 6. Relation (1 = child) | -.01 | .07 | .12 | -.06 | .01 | -- | | |
| 7. Distance | .03 | .18* | -.07 | .06 | -.12 | -.08 | -- | |
| 8. Caregiver stress | .00 | .07 | .05 | -.12 | -.05 | .22** | -.08 | -- |

Note. $N = 172$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Hierarchical Regression Analysis for Variables Predicting Long-Distance Caregivers' Stress (N = 172)

| Variable | Model 1 | | | Model 2 | | | Model 3 | | |
|-------------------------|---------|--------|---------|---------|---------|---------|---------|--------|---------|
| | B | (SE B) | β | B | (SE B) | β | B | (SE B) | β |
| Gender | -.058 | .147 | -.031 | -.066 | .145 | -.034 | -.008 | .146 | -.044 |
| Income | .000 | .001 | -.110 | -.002 | .001 | -.102 | .000 | .001 | -.097 |
| Care intensity | .062 | .049 | .105 | .047 | .049 | .078 | .006 | .050 | .092 |
| Caregiving duration | .002 | .002 | .068 | .001 | .002 | .035 | .000 | .002 | .036 |
| Care recipient's health | .018 | .194 | -.007 | -.008 | .190 | -.003 | -.001 | .190 | -.003 |
| Relation | | | | .517 | .192 | .206** | .501 | .192 | .200** |
| Distance | | | | | | | -.002 | .026 | -.076 |
| <i>F</i> | | .874 | | | 1.97 | | | 1.825 | |
| <i>DF</i> | | 5, 166 | | | 6, 166 | | | 7, 164 | |
| <i>R</i> ² | | .026 | | | .067** | | | .072 | |
| <i>F</i> Change | | .874 | | | 7.285** | | | .958 | |

Note. ** $p \leq .01$.

care recipient's health play in explaining caregiving stress. This model was not significant $F(5, 166) = .874$, accounting for only 2.6% of the variance.

Caregiver relation to care recipient. The second model (see Table 5, Model 2) added the predictor variable of caregiver relation to the care recipient, to address the first hypothesis that adult child caregivers would report greater stress than the nonchild caregivers. Individual control variables remained nonsignificant but the overall model was significant, $F(6, 165) = 7.285$, $p < .01$, explaining 6.7% of the variance. Caregiver relation to care recipient significantly predicted stress such that caregiving was more stressful for adult child caregivers than for nonchild caregivers.

Distance to care recipient. The final regression added the predictor of distance to the second model (see Table 5, Model 3). This model was significant, $F(7, 164) = .958$, $p < .01$, but proximity was not a significant predictor of stress. Relation type continued to have a positive association with stress (i.e., adult child caregivers reported greater stress). No additional variance was explained by this model.

Chapter 5 *Discussion*

The purpose of this study was to determine if long-distance caregiver stress varies by relation to and distance from the care recipient. A review of the literature indicated that the relations between long-distance caregivers, distance, and stress had not been explored in prior research. Caregiving is increasingly the responsibility of family members, with decreased reliance on social services and government support (Walker et al., 1995; Zarit & Edwards, 1996). Concurrently, familial dispersion is an increasingly common phenomenon, drawing attention to the importance of caregivers who live at a distance, and who though distant, remain in contact with their family members (Frankel & DeWit, 1989). The findings from this research underscore the importance of studying these caregivers, who may experience additional stress as a consequence of their lack of proximity.

Results from this study are consistent with previous research on the adult child-parental dyad, confirming the importance and significance of this relationship (Rossi & Rossi, 1991). This dyad is not only significant in earlier life, when children live in close proximity to parents, but also when they live at a distance. Although life factors may cause familial dispersion, when caregiving, adult children living at a distance from their parents report significantly higher amounts of stress than nonchildren.

The findings further support previous research demonstrating that long-distance caregivers tend to have high levels of income and educational

attainment (Rogerson et al., 1993; Wagner, 1997). These data also correspond with Litwak's modified extended family model (1985) suggesting that, although living at a distance, caregivers still provide support to care recipients (Climo, 2000; DeWit et al., 1988; Litwak & Kulis, 1987; Mercier et al., 1989; Silverstein & Litwak, 1993; Zarit & Edwards, 1996). The modified extended family model is consistent with the idea that complications may be created because of geographic distance between the caregiver and care recipient.

The first hypothesis of this study predicted that caregiver stress would be greater for adult child caregivers than for nonchild caregivers. Whereas family members may differ in how they respond to caregiver stress, the results clearly indicated that relation to care recipient was a significant predictor of caregiver stress, demonstrating that caregiving for a parent from a distance is more stressful than caring for loved ones other than parents, thus supporting previous research (Brody, 1985; Cicirelli, 1988; Schoonover et al., 1988). The small amount of variance explained in this study may reflect the complexity of long-distance care and the heterogeneity of individual caregiving circumstances. Caring for anyone from a distance may be a challenge, with caregivers having less opportunity to integrate the caregiving of their loved ones into their daily routine. Certainly, the decline of a parent may create stress, stress that could be exacerbated by lack of proximity.

The second hypothesis, that caregiver stress would be higher at increased distance, was not supported. This outcome may have occurred for many reasons. It could be that a one hour distance is, in fact, the distance that impedes the ability of caregivers to perform caregiving tasks, and that caregivers have similar challenges whether they live one hour or four hours from the care recipient. As Litwak (1985) has proposed, consideration must be given to the role that modern technologies have played in minimizing the effect of distance, with air travel creating the ability for caregivers to travel across the country in less than a day. Also, the average distance for caregivers in this study was 3 – 4 hours from the care recipient (approximately how long it takes to get halfway across the country via air travel). It is possible that, with more information about modes of travel, this measure would have been correlated more highly with stress. Also, recall that some long-distance caregivers who were providing more intensive types of care (such as assistance with household chores) were removed from the original sample. One may posit that distance would lead to greater stress for caregivers providing routine or household help than for caregivers who were more easily able to perform their caregiving tasks (such as providing emotional support) from a distance. Notably, however, adult child and nonchild caregivers did not differ in how far they lived from the care recipient.

Consistent with a life course perspective, this research confirms the effect of early life events on later life circumstances. Over the past 60 years, many parents have made the decision to have smaller families and many adult children have moved away from their parents' home towns. Older adults without children or without children nearby appear to be able to draw on other relatives or on children who live at a distance to assist them when they need care. It appears that nonchild caregivers do not find caregiving from a distance to be stressful as do children who move away from their parents. Geographic distance does not seem to protect children from the stress of caregiving.

Summary

The study findings suggest that there are protective factors that may assist long-distance caregivers. The bivariate relations suggest that caregivers with higher incomes give significantly less intense care. This may be because they can afford to hire someone to perform caregiving tasks and to travel often to visit their loved ones. Alternatively, their loved ones may have the income to employ someone to provide help on their own. Interestingly, the passage of time may lessen stress for caregivers. When changes occur in the health of a loved one, there may be a sizeable amount of time spent by the caregiver in adjusting to the needs of the care recipient. As illustrated by the example in Chapter 1, there was a flurry of activity at the beginning of this daughter's caregiving career, when parents

needed assistance coordinating care, through the transition of the father's declining health, and the need to create options and alternatives for the mother. Over time, however, the amount of time dedicated to caregiving by this caregiver seemed to lessen.

Further, one may postulate that with time, and once caregiving is integrated into the caregiver's life, stress may lessen. Both groups of caregivers indicated that a lack of instrumental resources was a concern and a stressor for them. It is possible, however, that the distinction between caregiving and general support for a loved one may become less clear over time. That is, caregivers may no longer consider their activities to be caregiving, but rather their filial or familial duty to their loved one, thus causing the report of care intensity to be low. For example, a four time weekly telephone call to a loved one may have at one time created additional stress as another caregiving chore, yet after it becomes more integrated into the weekly routine, it seems to be less of a stressor. Finally, long-distance caregivers may assist relatively late in the declining health of their loved one, caregiving intensely for a short period of time, after which their loved one may be moved to a facility of some sort, thus potentially lessening some of the activities of caregiving.

You may recall that 6 of 10 caregivers in this sample were women, and 6 in of 10 caregivers were employed full-time. One may postulate that women not only had responsibilities to their coresidential family members

(roughly 70% of the sample was married or living with a partner), but were also giving care to a loved one at a distance. When queried of their greatest unmet need, the most common answer for caregivers behind problems related to geographic distance, was insufficient instrumental resources to provide care. This suggests a lack of time, money, and other resources to provide care, which may be a significant factor in the stress of caregiving. Multiple obligations may further contribute to caregiver stress.

Caregivers found that one of the most stressful aspects of caregiving, following problems related to caregiver distance (for adult children), to be negative emotions related to caregiving. These emotions, such as lack of confidence about the appropriate course of action, dealing with and accepting their loved one's illness, worrying, and other emotional stress may contribute to the stress of caregiving, particularly when there is a lack of instrumental resources to give care.

Though the extent of distance from the care recipient does not appear to influence caregiver stress, relation to the care recipient evidently influences the amount of stress experienced by the caregiver. In conjunction with responses to the open-ended questions, the findings suggest that lack of resources and negative emotions related to caregiving from a distance, may exacerbate the stress of caregiving. Although this is likely to be true for both nonchild and adult child caregivers, the findings

clearly support previous research (Rossi & Rossi, 1990) that the parent-child relation is the strongest dyad.

Limitations

This research has the limitations inherent in a telephone survey, where households without telephones are not included. It is estimated that there are roughly 5 million households, roughly 5% of the population, without telephones across the United States (U.S. Census Bureau, 1990). Surveys were conducted only in English; thus, non-English-speaking respondents were excluded. The study sample size, although representative, is small, and, as previously mentioned, there is no information detailing participation and refusal rates.

Finally, the dependent variable, stress, was measured by a single item, thus limiting variability in this measure. In this study, nonchild caregivers were not highly stressed using this indicate. It cannot be concluded that long-distance caregiving is not stressful for them. Stress is a complicated construct, and research has suggested that stress can be influenced by a number of other variables. Stress occurs, in part, in relation to the entire context of people's lives comes, including their multiple family and other obligations and their own health concerns. Furthermore, caregiving stress may be linked more to the quality rather than the type of relationship between the caregiver and the care recipient. As this study had no measure of relationship quality, its influence could not be studied.

Nevertheless, the lack of information about long-distance caregivers supports the need for research in this area despite these limitations.

Furthermore, this study provided information on the links between distance and relationship type and the findings may lead to the development of programs and policies formulated to support these caregivers.

Recommendations for Further Research

There are many suggestions for future research in the area of long-distance caregiving. First, a larger, nationally representative sample would allow for more sophisticated analyses of this population. Also, the need for qualitative research on this topic is apparent, as the lived experiences of long-distance caregivers were not fully represented in these data. Common themes may be found through focus groups and long-distance caregivers may benefit from this type of research and the opportunity to interact with others in the same situation. As little is known about them, both qualitative and quantitative research is needed regarding the recipients of long-distance care. Programs for long-distance caregivers should be created, with evaluation of these programs essential.

Finally, attention needs to be directed to those in atypical caregiving situations. Without recognition of invisible populations, those in the situation of both caregiver and care recipient may be at risk for isolation and thus, increased stress. It is the privilege and duty of researchers to find and

acknowledge underserved populations, that they may have their needs met, and their lives enhanced by our work.

Implications for Policy and Programs

Of great importance is this study's documentation of the stress of long-distance caregivers, particularly adult children, thus suggesting the need for additional research and possibly programs to alleviate that stress. Having a greater understanding of the diverse nature of caregivers and of caregiving will help policymakers and planners create programs to support caregivers, and ultimately enhance the effectiveness of their care.

As detailed previously, caregivers in this study expressed many unmet needs. For both adult child and nonchild caregivers, the most common response in regard to unmet needs were problems related to proximity. Though little can be done to negate the distance between the caregivers and their care recipients, caregivers rated the lack of instrumental resources to provide care as a common unmet need. Similarly, both child and nonchild caregivers reported that the most stressful aspects of the experience, following problems related to geographic distance, were negative emotions and insufficient instrumental resources to provide care. These responses both help to identify areas for which programs and policies could potentially alleviate the stress of caregiving. Clearly, caregivers need support in giving care from a distance perhaps while juggling multiple demands.

Caregivers could benefit from information about the nuances of care from a distance. Educational courses could be taught through the Extension Service, the workplace, AARP, or other community resources. Potential topics could include banking from a distance, enhancing communications and their effectiveness with loved ones, finding care coordinators and resources across the miles, budgeting financial resources, Medicare and Medicaid, estate and legal issues, assessing and dealing with caregiver stress, time management, and so on. Long-distance caregivers might also benefit from a web resource with links to state agencies and contact organizations, as well as a message board and chat room for interaction with caregivers in similar circumstances. Through the identification of some of the issues that challenge long-distance caregivers, steps can be taken to meet the needs of this previously underserved group.

References

- Allen, K. R., Blieszner, R., & Roberto, K. A., (2000). Families in the middle and later years: A review and critique of the literature. *Journal of Marriage and the Family*, 62, 911 - 926.
- Baldock, C. V. (2000). Migrants and their parents: Caregiving from a distance. *Journal of Family Issues*, 21, 205 - 224.
- Bengtson, V. L., & Allen, K. R. (1993). The life course perspective applied to families over time. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 469 - 499). NY: Plenum Press.
- Bengtson, V., Rosenthal, C., & Burton, L. (1990). Families and aging: Diversity and heterogeneity. In R. H. Binstock, & L. K. George (Eds.), *Handbook of aging and the social sciences* (3rd ed., pp. 263 – 287). San Diego, CA: Academic Press.
- Brody, E. (1985). Parent care as a normative family stress. *The Gerontologist*, 25, 19 - 29.
- Cicireilli, V. G. (1988). A measurement of filial anxiety regarding anticipated care of elderly parents. *The Gerontologist*, 28, 478 – 482.
- Climo, J. (1992). *Distant parents*. New Brunswick, NJ: Rutgers University Press.
- Coward, R. T., Horne, C., & Dwyer, J. W. (1992). Demographic perspectives on gender and family caregiving. In J. W. Dwyer & R. T. Coward (Eds.), *Gender, families, and elder care* (pp. 18 - 33). Newbury Park, CA: Sage.
- DeWit, D. J., Wister, A. V., & Burch, T. K. (1988). Physical distance and social contact between elders and their adult children. *Research on Aging*, 10, 56 - 80.
- Dwyer, J. W., Folts, W. E., & Rosenberg, E. (1994). Caregiving in a social context. *Educational Gerontology*, 20, 615 - 631.

- Frankel, B. G., & DeWit, D. J. (1989). Geographic distance and intergenerational contact: An empirical examination of the relationship. *Journal of Aging Studies*, 3, 139 - 162.
- Gerstel, N., & Gallagher, S. K. (2001). Men's caregiving: Gender and the contingent character of care. *Gender & Society*, 15, 197 - 217.
- Greenwell, L., & Bengtson, V. L. (1997). Geographic distance and contact between middle-aged children and their parents. *Journal of Gerontology: Social Sciences*, 52B, S13 - S26.
- Hallman, B. C., & Joseph, A. E. (1999). Getting there: Mapping the gendered geography of caregiving to elderly relatives. *Canadian Journal on Aging*, 18, 397 - 414.
- Himes, C. L. (1992). Future caregivers: Projected family structures of older persons. *Journal of Gerontology: Social Sciences*, 47, S17 - S26.
- Himes, C. L., Jordan, A. K., & Farkas, J. I. (1996). Factors influencing parental caregiving by adult women. *Research on Aging*, 18, 349 - 370.
- Joseph, A. E., & Hallman, B. C. (1996). Caught in the triangle: The influence of home, work, and elder location on work-family balance. *Canadian Journal on Aging*, 15, 393 - 412.
- Joseph, A. E., & Hallman, B. C. (1998). Over the hill and far away: Distance as a barrier to the provision of assistance to elderly relatives. *Social Science Medicine*, 46, 631 - 639.
- Keppel, G., & Zedeck, S. (1989) *Data analysis for research designs*. New York: W. H. Freeman.
- Kinsella, K. (1995). Aging and the family: Present and future demographic issues. In R. Blieszner & V. H. Bedford (Eds.), *Handbook of aging and the family* (pp. 32 - 56). Westport, CT: Greenwood Press.
- Ladika, J. N., & Ladika, S. B. (2000). Aging children and their older parents: The coming generation of caregiving. *Journal of Women & Aging*, 12, 189 - 204.

- Ladika, S. B., & Pappas-Rogich, M. (2001). Anticipatory caregiving anxiety among older women and men. *Journal of Women & Aging, 13*, 3 - 18.
- Lee, G. R., Dwyer, J. W., & Coward, R. T. (1990) Residential location and proximity to children among impaired elderly parents. *Rural Sociology, 55*, 579 - 589.
- Lin, G., & Rogerson, P. (1995). Elderly parents and the geographic availability of their adult children. *Research on Aging, 17*, 303 - 331.
- Litwak, E. (1985). *Helping the elderly*. New York: Guilford Press.
- Litwak, E., & Kulis, S. (1987). Technology, proximity, and measures of kin support. *Journal of Marriage and the Family, 49*, 649 - 661.
- Marks, N. (1996). Caregiving across the lifespan: National prevalence and predictors. *Family Relations, 45*, 27 - 36.
- Matthews, S. H. (1995). Gender and the division of filial responsibility between lone sisters and their brothers. *Journal of Gerontology: Social Sciences, 5*, S312 - S320.
- Mercier, J. M., Paulson, L., & Morris, E. W. (1989). Proximity as a mediating influence on the perceived aging parent-adult child relationship. *The Gerontologist, 29*, 785 - 791.
- Merrill, D. M. (1993). Daughters-in-law as caregivers to the elderly. *Research on Aging, 15*, 70 - 91.
- Moen, P., & Forest, K. (1995). Family policies for an aging society: Moving toward the twenty-first century. *The Gerontologist, 35*, 825 - 830.
- Moen, P., Robinson, J., & Dempster-McClain, D. (1995). Caregiving and women's well-being: A life course approach. *Journal of Health and Social Behavior, 36*, 259 - 273.
- Moss, M. S., Moss, S. Z., & Moles, E. L. (1985). The quality of relationships between elderly parents and their out-of-town children. *The Gerontologist, 25*, 134 - 139.
- Mui, A. C., & Morrow-Howell, N. (1993). Sources of emotional strain among the oldest caregivers. *Research on Aging, 15*, 50 - 69.

- O'Rourke, N., & Tuokko, H. (2000). The psychological and physical costs of caregiving: The Canadian study of health and aging. *Journal of Applied Gerontology, 19*, 389 – 404.
- Peters-Davis, N. D., Moss, M. S., & Pruchno, R. A. (1999). Children-in-law in caregiving families. *The Gerontologist, 39*, 66-75.
- Pratt, C. C., & Kethley, A. J. (1988). Aging families and caregiving in the future: Implications for education and policy. *Educational Gerontology, 14*, 567 - 576.
- Rogerson, P., Weng, R., & Lin, G. (1993). The spatial separation of parents and their adult children. *Annals of the Association of American Geographers, 83*, 656 - 671.
- Rogerson P. A., Burr, J. A., & Lin, G. (1997). Changes in geographic proximity between parents and their adult children. *International Journal of Population Geography, 3*, 121 - 136.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine De Guyer.
- Schoonover, C. B., Brody, E. M., Hoffman, C., & Kleban, M. H. (1988). Parent care and geographically distant children. *Research on Aging, 10*, 472 - 492.
- Silverstein, M., & Litwak, E. (1993) A task specific typology of intergenerational family structure in later life. *The Gerontologist, 33*, 258 - 264.
- Smith, G. C. (1998). Residential separation and patterns of interaction between elderly parents and their adult children. *Progress in Human Geography, 22*, 368 - 384.
- SPSS (2002). SPSS (Version 11.0) [Computer Software]. Chicago, IL: SPSS, Inc.

- Starrels, M. E., Ingersoll-Dayton, B., Dowler, D. W., & Neal, M. B. (1997). The stress of caring for a parent: Effects of the elder's impairment in an employed, adult child. *Journal of Marriage and the Family*, 59, 860 - 872.
- Stoller, E. P., & Pugliesi, K. L. (1989). The transition to the caregiving role: A panel study of helpers of elderly people. *Research on Aging*, 11, 312 - 330.
- Suitor, J. J., Pillemer, K., Keeton, S., & Robinson, J. (1995) Aged parents and aging children: Determinants of relationship quality. In R. Blieszner & V. H. Bedford (Eds.), *Handbook of aging and the family* (pp. 233 - 242). Westport, CT: Greenwood Press.
- U.S. Census Bureau (2001). *Why people move: Exploring the March 2000 current population survey*. Retrieved May 1, 2001, from <http://www.census.gov/prod/2001pubs/p23-204.pdf>.
- U.S. Census Bureau (2002). *Phoneless in America*. Retrieved July 25, 2002, from http://www.landview.census.gov/aprd/www/statbrief/sb94_16.pdf.
- Wagner, D. L. (1997) *Caring across the miles: Findings of a survey of long-distance caregivers*. National Council on the Aging, Inc., Washington D.C.
- Wagner, D. L., & Neal, M. B. (1997, November). *Long-distance caregiving for the elderly: A pilot study*. Poster session presented at the Annual Scientific Meeting of The Gerontological Society of America, Cincinnati, OH.
- Walker, A. J., Pratt, C. C., & Eddy, L. (1995). Informal caregiving to aging family members: A critical review. *Family Relations*, 44, 402 - 411.
- Walker, A. J. (1992). Conceptual perspectives on gender and family caregiving. In J. W. Dwyer & R. T. Coward (Eds.), *Gender, families, and elder care* (pp. 34 - 46). Newbury Park, CA: Sage.
- Zarit, S. H., & Edwards, A. B. (1996). Family caregiving research and clinical intervention. In R. T. Woods (Ed.), *Handbook of the clinical psychology of ageing* (pp. 333 - 367). Chichester, NY: John Wiley & Sons.