# Men as Caregivers of Frail Elderly: Gender Differences in the Caregiving Experience 

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#### Abstract

Though most informal caregivers are women, the number of men providing care for aging family members is increasing. Yet, research on male caregivers is limited. More is needed to understand the unique skills, needs, and issues of men. Using secondary data from the Resources for Enhancing Alzheimer's Caregiver Health (REACH II) study, this thesis evaluates the hypotheses that (1) males have lower caregiver burden than females, (2) males receive more social support than females as caregivers, and (3) male caregivers have less desire to institutionalize care recipients than female caregivers. Findings indicate that males do indeed have lower caregiver burden scores than females, but contrary to what was hypothesized, they receive less social support. No significant difference in desire to institutionalize was found. Possible explanations of these findings are discussed, as are implications for future research and practice.


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## INTRODUCTION

In America in 1900 those age 65 or older numbered 3.1 million and accounted for $4.1 \%$ of the population. By 2010, this number had climbed to 40.4 million (13.1\%) and is projected to increase to 72.1 million (19.3\%) in 2030 (DHHS 2012). As of 2010, the 65 and over age group has grown faster than the under age 65 group, with the $65+$ group increasing by $15.3 \%$ while those under age 65 increased by only $8.7 \%$. While those age 65-74 numbered 20.8 million in 2010 or 10 times their number in 1900, those age $75-84$, numbered 13.1 million or 17 times their number in 1900 and those age $85+$ numbered 5.5 million or 45 times their number in 1900 (DHHS 2012). In 2010, those age $85+$ made up $1.9 \%$ of the total population and are estimated to increase to $4.3 \%$ by 2050 (Sade 2012). Centenarians, which numbered 135,000 in 1998, will rise to an amazing 2.2 million by 2050 (Lunenfeld 2008).

The number of elderly Americans is growing so quickly because of increasing life expectancy and the aging of the baby-boomers. Life expectancy at birth has increased dramatically in the last century, rising by more than 30 years, due primarily to better public sanitation in the $19^{\text {th }}$ century and medical advances, such as antibiotics, vaccinations, and safer surgery procedures during the $20^{\text {th }}$ century (Lunenfeld 2008). Laws passed during the 1900s also helped the elderly live longer by lifting them out of poverty and into self-sufficiency. Military pensions in 1904 established under Theodore Roosevelt later lead to an old age pension signed as social security in 1935 by Franklin Roosevelt. The creation of Medicare and Medicaid under Lyndon Johnson in 1965 improved the amount and quality of health care received by the elderly (Fleming, Evans,
and Chutka 2003). Couple this with the fact that a large number of births occurred during the prosperous years that followed World War II (1946-1964) creating a baby-boom. The first baby-boomers reached age 65 in 2011 and will cause the ranks of the elderly to increase greatly through 2030 when the baby boom growth increase will level off (Sade 2012).

While life expectancy has increased, the last few years of life can be spent in declining health. Lunenfeld (2008) explains the last 8-11 years of life are associated with disability. This puts a bigger demand on medical care, social services, and both formal and informal caregivers. Chen et al. (2008) states roughly $80 \%$ of the elderly have one chronic disease and $50 \%$ are coping with two. "The majority of older people's cause of death is often related to the insidious progression of multiple comorbidities and dementia" (Covinsky et al. 2003:493). A study by Zhao et al. (2010:4) reported, "disability in both ADLs (Activities of Daily Living such as bathing and feeding) and IADLs (Instrumental Activities of Daily Living such as maintaining a home and balancing a checkbook) rose from $59.1 \%$ to $85.4 \%$ after age 90 ."

In spite of these physical and cognitive limitations, the number of elderly in nursing home facilities has decreased due to the increasing use of home and community based care. The portion of Americans age 75+ living in a nursing home in 2006 was $7.4 \%$, a decline from $8.1 \%$ in 2000 and $10.2 \%$ in 1990. The same downward trend is found for those age 85 and over, with less than $16 \%$ in nursing homes in 2006 , down from $21 \%$ in 1985 (El Nasser 2007). This means that frail elderly are increasingly likely to live in the community, being cared for by family and friends. Applegate and Kaye (1990) state $95 \%$ of old people and $90 \%$ of those who are impaired physically stay at
home to be cared for by spouses and adult children in spite of their impairments. If there are several friends and family available as caregivers for the elderly person, one usually gets assigned the role of primary caregiver (Applegate and Kaye 1993). The media discuss "sharp cutbacks in formal services to the elderly reinforce the traditional societal injunction that families should 'take care of their own'" which reinforced the idea that they should stay at home (Applegate and Kaye 1993:153). The Family Caregiver Alliance (FCA 2011) estimates 65.7 million people, or $29 \%$ of the U.S. population, are caregivers.

Family members choose to care for their aging relatives for a variety of reasons ranging from obligation to altruism. Many find it fulfilling and believe that it makes them a well-rounded individual. Others see it as a duty to care for the aging person due to filial responsibility or a sense of respect for the elderly. Still others may see it as financially rewarding, providing them with free room and board or the promise of being compensated when the care recipient dies through inclusion in their will. Caregivers may also adopt the role as a form of reciprocity, feeling they owe the care recipient since the recipient cared for them during their infancy and childhood (Hooyman and Kiyak 2011).

The literature on caregiving suggests it is a gendered task. Russell (2007b:3) states, "Gender differences based on biological differences between males and females, or differing moral orientations have created the self-fulfilling prophesies that domestic labor is socially differentiated based on sex..." Women are guided into the realm of caregiving based on beliefs about maternal instincts, their gender socialization experiences, and job prospect differences for women and men (Cancian and Oliker 2000). From infancy, boys and girls are taught that they are different and are expected to act
differently and most are aware of these differences by age three or four (Tobin et al. 2010). Girls are taught it is acceptable, even expected, to be sensitive to others, vulnerable, and express feelings, whereas boys are taught dominance and not to show flaws or vulnerability (Cancian and Oliker 2000). These differences in socialization continue through adolescence and into adulthood, with women being directly and indirectly encouraged to choose feminine, supportive, and nurturing roles, while men are channeled toward more masculine, competitive, technological, and authoritative roles, thus creating a gendered division of labor, where certain work, like caregiving, is seen as "women's work" (Russell 2007a). As a result women have historically and continue to predominate as caregivers to the elderly (Applegate and Kaye, 1989; Russell 2007b; Baker and Robertson 2008), providing approximately $66 \%$ of the informal care received by frail elderly (FCA, 2011).

However, this does not mean that men do not provide substantial elder care. Gender roles have been changing since the 1960s, with women becoming increasingly involved in school, work and other obligations, making it more difficult for them to be the primary caregiver of an aged parent or family member. Poston and Bouvier (2010) argue that due to declines in the fertility rate, which dropped from seven children per woman in 1800 to a little over two children in 2000, and increases in life expectancy, parents live longer today with fewer children to shoulder the burden of caregiving. Similarly, Russell (2007b:2) points out that the aging of the baby boomers means "the number of available caregivers will decrease from 11 in 1990 to less than 6 in 2020 for individual elders requiring care," and he goes on to say that "it is predictable that men will occupy significantly greater roles in the caregiving arena." Applegate and Kaye
(1989) assert that the number of husband caregivers is increasing due to men's increasing life expectancies and the higher rate at which women are diagnosed with Alzheimer's disease.

Hence, men as informal caregivers of the elderly and aging are increasing. A comprehensive survey by AARP and National Alliance for Caregiving (NAC) found that in 1997, $27 \%$ of caregivers were men and in 2004, the percentage had risen to nearly $40 \%$ (Gandel 2009). Sanders and Power (2009) state that $37 \%$ of caregivers are men, mostly husbands, and that percentage is higher for Asians (54\%) and Latinos (41\%). A study by Navaie-Waliser (2001) found $43 \%$ of white caregivers, $33 \%$ of black caregivers and $45 \%$ of Hispanic caregivers are men.

This unsung group of caregivers often gets overshadowed by the predominance of women caregivers. The purpose of this thesis is to study this small, but growing group. The literature on men as caregivers will be reviewed, comparing and contrasting them to women as caregivers. Hypotheses about differences between men and women caregivers will be developed based on both theory and prior research. Existing data on informal caregivers of those with Alzheimer's disease will be used to test these hypotheses. The goal is to further the understanding of men as caregivers for the elderly.

## LITERATURE REVIEW

Since women have disproportionately served as caregivers of the frail elderly, the literature on caregiving has been dominated by discussions of the woman as caregiver experience. While there are undoubtedly similarities between caregivers of both genders,
there is a growing recognition that the experience of men as caregivers differs in some important ways. The review that follows will highlight some of these differences.

## Differences in Care Recipients

Most men provide care for their wives while women care for a more diverse group of care recipients including husbands, mothers, fathers, and in-laws. Applegate and Kaye (1989) found that $68 \%$ of men cared for wives, with fewer caring for mothers (12\%) and fathers (6\%). Caregiving from men for in-laws, siblings or friends was rarely reported. This stands in stark contrast to a recent Gallup survey reported by Mendes (2001) which found $72 \%$ of all caregivers (most of whom are women) cared for a parent, step-parent, mother-in-law, or father-in-law. Chang and White-Means (1991) point out that though wives have been caring for and nurturing their husbands throughout their lives; husbands have traditionally been defined as providers through means of employment or income and protectors which can make the transition to the caregiver more difficult. Nevertheless, husbands seem willing to abandon traditional gender roles of the breadwinner to become more nurturing to care for their wives if and when they need such care.

## Differences in Types of Care and Amount of Care Provided

Both men and women provide a variety of types of care and are responsible for both the IADLs and ADLs of the care recipient. IADLs include tasks that improve quality of life but are not imperative to survival, such as balancing a checkbook, grocery shopping, meal preparation, cleaning, driving, lawn care, and maintaining a home. Both men and women are relatively familiar and comfortable with these activities and are able
to assist care recipients with IADLs. However, some, like lawn work and home maintenance are seen as more masculine activities, while others, like cooking and cleaning, are seen as more feminine. As a result, men tend to have more experience providing assistance with the more masculine activities while the opposite is true for women due to the amount of care they provide in these areas (Cahill 2000; Ginzler 2010). A Metlife study (2011) reports that in many regards sons and daughters provide similar care, but daughters focus on basic care whereas sons focus on providing financial assistance.

ADLs are related to a person's self-care and are crucial for survival. They include feeding, toileting, personal hygiene, and bathing. Women, who are socialized and expected to be caregivers, have much greater knowledge and experience in providing this kind of direct personal care, while men often find providing ADL assistance difficult and uncomfortable (Ginzler 2010). Further, due to concerns about sexual impropriety, men can feel awkward when taking care of a woman's personal needs, especially their mother's, and may feel more comfortable paying someone else to provide such care. Over $40 \%$ of men hire formal caregivers for personal care of their care recipient. Since women are less likely to be seen as sexual aggressors, their caring for a man is seen as less problematic (Ginzler 2010).

Russell's (2007b) work on men doing 'women's work' argued that the most difficult tasks for men as caregivers are meal preparation and incontinence care. Due to traditional gender roles, meal preparation requires knowledge and experience that many men do not have and learning to cook can be a challenge. Toileting and incontinence care can be even more difficult for men due to the intimate nature of such activities.

While men who provide such care often do so initially out of sense of duty or obligation, it often comes to be seen as a way of expressing their love and devotion. Russell (2007b) states that men reported gaining the comfort, competency, and confidence in the area of incontinence care gradually, and eventually providing this intimate personal care became a part of the caregiver's core identity as a man and husband.

Similarly, other scholars have found significant differences in the types and amount of care provided by men and women. Ginzler (2010) found that $24 \%$ of men compared to $28 \%$ of women help their care recipient with dressing and that $16 \%$ of men versus $30 \%$ of women help with bathing. A Family Caregiving Alliance (2011) report states that women provide more hours of help per week, (21.9 hours for women versus 17.4 hours for men) and do more hands-on tasks such as bathing, toileting, and dressing ( $36 \%$ women versus $24 \%$ men). In a study by Cahill (2000), $90 \%$ of the caregivers who are men in her sample managed finances in the home, took care of the home, and cooked while more than $80 \%$ assumed responsibility over medications. However, only half of the sample provided assistance with incontinence issues.

Another aspect of caregiving for both men and women involves protecting the care recipient psychologically and emotionally. This is accomplished by helping the care recipient maintain dignity and self-esteem in social situations. This involves making sure safeguards are in place so that their care recipient is not embarrassed in public if they forget someone's name, do not remember where they are, or have problems with incontinence (Sanders and Power 2009). For husbands, protecting their wife's dignity often means learning new tasks like helping them apply their makeup, style their hair, or put on hose. However, such efforts can have rewards. Black et al. (2008:190) state,


#### Abstract

"Perseverance in care work sustained men's identity as a spouse as well as their wives' identity...Her continued existence meant not only that the husband has performed his final 'career' successfully, but that their marriage identity remained intact."


## Differences in the Work/Family Caregiving Relationship

Men are more likely to still be participating in the workforce, with $82 \%$ of men in full-time jobs compared to $70 \%$ of women (Ginzler 2010). Working caregivers have to multi-task both roles of worker and caregiver to make sure both jobs are completed. The Family Caregiving Alliance (2011) reports women who are employed while caregiving make more job sacrifices than men such as working in a less demanding job ( $16 \%$ women versus $6 \%$ men), quitting/retiring from work ( $12 \%$ women versus $3 \% \mathrm{men}$ ), and losing benefits that were attached to the job ( $7 \%$ women versus $3 \%$ men). Of women, $33 \%$ decrease hours at work, $29 \%$ pass up promotions, $22 \%$ take a leave of absence, and $20 \%$ change from a full-time to part-time position (FCA 2011). Daughters are more likely than sons to give up their jobs which can damage their self-esteem and identity (Hooyman and Kiyak 2011).

Employment can be impacted by facing issues such as missing work, arriving late, leaving early and missing assignments, meetings, or advancement opportunities due to having to care for the care recipient. Gandel (2010) finds men tend to delegate aspects of the caregiving role to other family members or friends or to hire formal caregivers to help when faced with scheduling conflicts between employment and caregiving. This can be the man's personal preference or may stem from workplace discrimination or embarrassment from gender stereotypes. It can be harder for men to take off work or
have a leave of absence compared to women asking for the same flexible schedules because of the entrenched stereotypes in the employment arena. Some employers or bosses are insensitive to gender neutral policies (Koeppel 2013). On the other hand, the care recipient can suffer from lack of attention because their caregiver must tend to employment obligations in order to earn a wage as well and the care recipient needs could become secondary. This is why women may drastically change their work schedules or quit work to provide care on a full-time basis and men choose options that will carry the financial burden such as working longer and delaying retirement (FCA 2011).

## Differences in Attitudes, Coping Techniques, and Caregiver Burden

Interestingly, men tend to report more positive experiences and perceptions of the caregiving role than women. This could be because older wives see caregiving as an extension of nurturing when they have already raised their children and maybe even grandchildren while older husbands see caregiving as a new role and task in life and find value in being productive in this new job (Cahill 2000).

Gerstel (2000) suggests men and women experience caregiving differently because of socialization differences. In a patriarchal society women are socialized to be nurturing and relationship oriented while men are taught to be more instrumental and task focused. Hence, caregiving men tend to see caregiving in an instrumental light as a job to be done, focusing on authority, task completion, and minimizing disruptions. They tend to ignore or deemphasize the emotional aspects of caregiving. As Calasanti and King (2007:520) state, "husbands prioritized physical over emotional maintenance when these
came into conflict." Women, on the other hand, are not taught to separate caregiving tasks from their empathy toward the care recipient.

Men employ a range of coping skills with their caregiving responsibilities similar to management skills learned in the office, such as identifying the problem and task needed to be completed, creating schedules, and coming up with creative and flexible solutions for problems. They see caregiving as 'work' and separate themselves from the emotional part of caregiving. While they care about the care recipient, they are able to ignore or hide feelings of shame, fear, or sadness in order to get the task at hand finished (Calasanti and King 2007). Further, using a managerial style of caregiving gives these men the satisfaction of being in control and in charge and "may enable them to set limits to caring activities, thereby protecting themselves from the burden, depression and guilt often experienced by women" (Cahill 2000:55).

Caregiver burden can be defined as "the extent to which caregivers perceive that their emotional or physical health, social life and financial status to have suffered as a result of caring for their relatives" (Takano and Arai 2004:73). Caregiver burden has several dimensions for both men and women caregivers. These include relationship burden (burden can affect the existing relationship with care recipient before the caregiving began), objective burden (providing services for care recipient interferes with work, social activities, and other relationships), and stress burden (emotional stress, challenges, and anxiety) (Savundranayagam, Montgomery, and Kosloski 2011). Caregiver burden is associated with declines in physical and psychological health (Limpawattana et al. 2013) and increased depression, especially in women (Almberg et
al. 1998; Jones et al. 2011). Consistently, studies have found that women report more caregiver burden than men.

In sum, men have fewer symptoms of anxiety, anger, depression, caregiver strain, burden, stress, and physical and mental illnesses from their care work compared to women, while experiencing better health and adaptability to change (Russell 2004; Calasanti and King 2007; Sanders 2007). This is especially true if there was or is a positive relationship with the care recipient, allowing the man as caregiver to find more meaning in their caregiving job and have fewer issues with burden (Neufeld and Harrison 1998). Nevertheless, men can experience caregiver burden and Dobrof et al. (2006) points out that if they do, the stress can result in home tension, employment loss, job decline, and physical and/or mental illness.

## Differences in Social Support

Providing care for someone for both the men and women caregiver can include disconnection and loneliness and it is tremendously important to reach out for help to thwart such depressive emotions (Russell 2004). Social interaction and social support systems are imperative for caregivers who may spend many hours per week isolated with their care recipient usually in declining health. Social support has been shown to be correlated with better physical and mental health and lower levels of caregiver burden (Gaugler et al. 2000; Jones et al. 2011).

In general, the literature suggests that men as caregivers receive more formal and informal social support than do women (Sanders 2007). This includes greater utilization of available social services (Sanders and McFarland 2008), use of formal or paid
caregivers (Miller and Guo 2000; FCA 2011), and more support from family and friends (Applegate and Kaye 1989). Men are 12\% more likely to be employed (Ginzler 2010) and have other outside of the home involvements, further increasing their frequency of interaction with people other than the care recipient and providing a respite from caregiving responsibilities (Russell 2004; Ginzler 2010).

While women are more likely to attend support groups where they discuss emotions and feelings, men will attend similar meetings if they are labeled 'workshops' or 'seminars' rather than 'support groups' and they prefer to talk about actions and problem solving rather than feelings or relationships (Russell 2004). Men caregivers typically get most of their social interaction in their work place and many do not fully realize the importance of their work place social networking until retirement when their caregiving responsibilities become their primary focus. Nevertheless, they still have the need for social interaction and though it is harder to make time, participation is seen as beneficial for the caregiver's respite. Some men get together for a meal with other men and have a rule of not talking about caregiving. This is their own time to not be a caregiver and to talk about their own interests like sports or their grandchildren (Russell 2004).

The literature shows that men can be both active and reclusive in finding or accepting outside help. Men are socialized to be problem solvers and since they are used to delegating, they are more comfortable seeking help when needed and can be seen as open to any means, both formal and informal, to help the care recipient and provide themselves respite (Gandel 2009). This is especially true for white husbands who receive more emotional support from their adult children when compared to other races and
women (Miller and Guo 2000). Research also suggests that women suffer from family conflict due to the stress of caregiving more often which can make receiving help from informal networks harder (Almberg et al. 1998). Women are more likely than men to report conflict with family members and with a higher number of members, possibly due to their increasing new responsibilities with caregiving in addition to responsibilities at home and work (Scharlach, Li, and Dalvi 2006). Because they do not have as much conflict with other family members, men are less likely to see difficulties with caregiving as a reflection on themselves as a man (Calasanti and King 2007). Women internalize the feelings of guilt for failing to juggle everything on their own and take their difficulties with caregiving more personally.

However, some men may be less likely to seek help because they are in a predominately woman position and do not want to feel emasculated by drawing attention to themselves as caregivers or that they cannot complete the task of caregiving. They do not want to tarnish their sense of pride or privacy (Russell 2004). Sometimes men have difficulty asking for help from informal support networks due to the prospective helper's home and work obligations. The caregiver can also be made to feel guilty by family when they seek formal help. Mens' sense of support was more reassuring than the actual help of the social network and the perception of social support is more important to the quality of life than the actual support given (Applegate and Kaye 1989; Hooyman and Kiyak 2011). If the man as caregiver had a good relationship with the other family members, he felt more competent in his caregiving skills and had fewer burdens, even if the family members did not actually help with the caregiving tasks. Other reasons they may not ask for help is the caregiver wants to remain in control or feel they should just
keep a 'stiff upper lip' at all costs. They also worry about what they will find when they get back home if the family member giving respite to the caregiver is incompetent or the care recipient is scared of them (Applegate and Kaye 1989). When men have no help with caregiving tasks they have to discontinue outside interests and activities for themselves. Sometimes they can only count on the informal support network to help when the caregiver was ill himself or in an emergency situation.

## Differences in Attitudes Toward and Use of Nursing Homes

Institutionalization is a difficult decision for any caregiver. Some care recipients need to be institutionalized due to their diminishing health, both mentally and/or physically. Sometimes the caregiver can no longer take on the responsibility due to stress and role overload and there is no one else to care for the recipient. Caregivers may consider institutionalization when their care recipient is aged $85+$, needs help with feeding, and has had many emergency room visits (Dubois 2009). Pot, Deeg, and Knipscheer (2001) argue personality traits, psychological distress, commitment, resources and income are some differences between those who institutionalize and those who do not. Commitment, or a lack thereof, is a strong indicator of the decision to institutionalize. For example, non-spouses are more likely to institutionalize their demented care recipient compared to spouses (Pot et al. 2001).

The literature on gender differences in attitudes toward and desire to institutionalization is limited and dated. While logic suggests that women might be more likely to place their care recipients in nursing homes than men, given their higher levels of stress and caregiver burden and lower levels of social support, the few studies
available do not find this distinction. One study reported that young men have a higher percentage of institutionalizing their elderly relative, perhaps due to their still developing careers and personal lives (Thomas et al. 2004). A Brown University Long-Term Care Quality Advisor (1996) group noted that having at least one daughter decreases the likelihood of the care recipient being admitted into a nursing home by about one-fourth, but these findings are dated. It also notes that having a son reduces the risk for mothers, but not fathers (Brown University 1996). Other studies reveal no difference in admittance into a nursing home for the care recipient whether there is a daughter or son involved (Charles and Sevak 2001; Noel-Miller 2010).

Research on men as caregivers suggests that husbands who do put their wives in nursing homes often do so because of pressure from informal support networks, not because of their own desires (Pot et al. 2001). However, when husbands place wives in nursing homes, they tend to see a stress relief and resource improvement, but their psychological well-being does not improve appreciably when compared to husbands who cared for their wives at home. Though she is not deceased, he no longer fulfills the role of caregiver when she is institutionalized (Baker and Robertson 2008).

In sum, men and women caregivers differ in terms of whom they care for and the types of care they provide. They also differ in terms of their likelihood to be employed while providing care and the impact of caregiving on employment and vice versa. Finally, they differ in terms of their attitudes and approach to caregiving, the amount of caregiver burden they experience, and possibly their willingness to consider institutionalization. These differences are due, in large part, to differences in socialization. Women are taught to be caregivers, to focus on others and on relationships,
and to emphasize feelings and emotions. Thus, they infuse their caregiving role with emotion. Men are taught to be task oriented, to focus on the accomplishment of goals, and to be rational and logical. This allows men to more effectively separate the work of caregiving from their emotional connection to the care recipient. Men also receive more social support, possibly because they are seen as less capable caregivers and in need of more assistance, but also because work experiences and gender expectations make it more acceptable and appropriate for them to do so. As a result, males may be less likely to institutionalize their care recipients. Given this literature, three hypotheses have been developed and evaluated in this study.

H1: Men experience less caregiver burden than women caregivers.
H2: Men receive more social support than women caregivers.
H3: Men are less likely to consider institutionalization than women caregivers.
Each of these will be assessed both with and without basic demographic control variables. In addition, caregiver burden and social support will be included as controls in the analysis of the third hypothesis.

## METHODOLOGY

## Data

To test the above hypotheses, I used existing data drawn from the Resources for Enhancing Alzheimer's Caregiver Health (REACH II) study conducted from 2001-2004 (Schulz et al. 2001-2004). This National Institute on Aging (NIA) and the National Institute of Nursing Research (NINR) funded study utilized five different sites in five states where face to face interviews were conducted with caregivers of individuals with Alzheimer's disease or related illness. The study involved 670 participants and measured

890 variables. The ones used in this analysis were sociodemographic information (marital status, race, education, current employment status, and income), burden, social support, and desire to institutionalize. This data set was chosen because it contains measures of the four key variables in my hypotheses, plus other variables that are included as controls. The data were downloaded directly from the Inter-University Consortium for Political and Social Research web site (ICPSR 2001-2004) as a SPSS data file.

## Participants

The participants were recruited by community agencies and organizations through brochures, newspaper ads, flyers, television, radio, health fares, and churches. Each agency had information packets for potential participants that explained the study and had a consent form allowing the organization to give the name of the potential participant to the research team. The team then contacted and screened the individual for the study. The interviews lasted two hours and were confidential, with each participant coded by number and not by name. A second interview was scheduled for a six month follow-up asking the same questions (ICPSR 2001-2004).

To be included in the study caregivers had to be 21 years of age or older, be a family member of the care recipient (CR), live with and share cooking facilities with the CR, have a telephone, plan to remain in the recruitment area for the interview and for the six month follow-up, have been in the caregiver role for at least six months, provide an average of four hours of supervision or care per day, have an acceptable score on a risk screening tool (a score was not indicated as a cut off for acceptable), and speak English
or Spanish. Participants were excluded if they were in active treatment for cancer, were planning to place the CR in a nursing home imminently, were in another or previous caregiver study, or experienced mental deficits as indicated by Short Portable Mental Status Questionnaire (SPMSQ). The CR had to have a diagnosis of dementia or cognitive impairment and speak English or Spanish, and could not have a history of Parkinson's Disease or stroke with no decline in memory over the past year, be in active treatment for cancer, have more than three acute medical hospitalizations in the past year not including psychiatric or Alzheimer's disease related, have Schizophrenia or severe mental illness, have dementia secondary to head trauma, be blind or deaf if it prohibited participation, or have an MMSE of 0 and be bedbound. The inclusion criteria was so specific for the CR to make sure they had the targeted disease that was to be studied not influenced by other health problems or mental problems that could influence the CR's answers in this study. A total of 670 caregiver/care recipient pairs were included in the initial baseline interview (ICPSR 2001-2004). The initial baseline interview data is the only data looked at in this thesis and not any follow up data.

## Measures

Evaluating the hypotheses requires identifying measures of the four key variables - sex, caregiver burden, social support, and desire to institutionalize. Caregivers with missing data on any of the following measures were excluded from the calculation. Interestingly, there is no SEX or GENDER variable in the data set, but fortunately sex can be imputed by using sex specific items from the Risk Appraisal section of the REACH II interview. Specifically, since the question about having a mammogram
(question 38 in the Risk Appraisal section) and pap smear (question 39 in the Risk Appraisal section) are only asked of females, while the question about having a prostate examination (question 40 in the Risk Appraisal section) is only asked of males, data from these variables can be used to create a variable representing the sex of the caregiver. All three of these variables were originally coded as follows "no" (coded 0$)$, "yes" (coded 1$)$, "not applicable" (coded -2), "unknown" (coded -3), and "refused" (coded -4). (These latter three coding categories were used throughout the questionnaire, but will only be mentioned here.) If either the mammogram or pap smear variables were equal to 0 or 1 , the caregiver's sex was coded as 0 indicating they were female, since only female caregivers were asked these questions. If the prostate exam variable was equal to 0 or 1 , the caregiver's sex was coded as 1 indicating the caregiver was male, since only male caregivers were asked this question. Caregivers coded as $-2,-3$, or -4 on all three questions were treated as missing on the sex variable. This produced a variable indicating that there were 532 female and 108 male caregivers in the data set. Sex was unknown for 30 caregivers. (See Table 1)

Caregiver Burden was measured by 12 items in the Burden Interview section of the REACH II questionnaire. In this section, caregivers were asked "Do you feel ..."

1. that because of the time you spend with (CR) that you don't have enough time for yourself?
2. stressed between caring for (CR) and trying to meet other responsibilities (work/family)?
3. angry when you are around (CR)?
4. that (CR) currently affects your relationship with family members or friends in a negative way?
5. strained when you are around (CR)?
6. that your health has suffered because of your involvement with (CR)?
7. that you don't have as much privacy as you would like because of (CR)?
8. that your social life has suffered because you are caring for (CR)?
9. that you have lost control of your life since (CR)'s illness?
10. uncertain about what to do about (CR)?
11. you should be doing more for (CR)?
12. you could do a better job in caring for (CR)?

The available answer choices were "never" (coded 0)," rarely" (coded 1),
"sometimes" (coded 2), "quite frequently" (coded 3), and "nearly always" (coded 4). For analysis, these 12 items were added together to compute a "Caregiver Burden" score with a possible range from 0 (the caregiver answered "never" to all 12 items) to 48 (the caregiver answered 'nearly always" to all 12 items), with higher scores indicating greater caregiver burden. The actual range of the resulting variable was 0 to 46 with a mean of 18.7 and a standard deviation of 9.8 . Table 2 shows the frequency distribution for the 12 items that make up this measure. A principle components factor analysis was performed on all 12 items and two factors emerged. Of the 12 items, 10 items loaded on the first factor which explained $43 \%$ of the variance in the items and two items loaded on the second factor which explained $13.5 \%$ of the variance. The 10 questions that loaded on the first factor ask how the caregiver is feeling and stress level. The other two questions seem to be measuring a lack of confidence asking if the caregiver should have been doing more or a better job. Given the prior use of this index as a single measure of caregiver burden, my theoretical interest in burden as a single dimensional construct, the large variance explained by the first factor, and high correlation between the two factors, I chose to treat the 12 items as a single construct measuring caregiver burden. Cronbach's Alpha was run on the entire set of questions with a reliability statistic of 87 .

Social Support was measured in three different sections of the REACH II questionnaire, including the Social Support section, the Risk Appraisal section, and the

ADL/IADL section. However, in this study the data from the Social Support section was used, since it is the most extensive of the three measures and addresses most of the dimensions of social support measured by the other two. The items in this section measure the type of and amount of informal support the caregiver receives from those not living with the CR as well as caregiver satisfaction with this support. The following 16 questions were asked:

1. Overall, how satisfied have you been in the past month with the help you have received from family members, friends, or neighbors?
2. How many relatives, friends, neighbors, other than (CR) do you see or hear from at least once a month?
3. How many relatives, friends, neighbors, other than (CR) do you feel close to? That is, how many do you feel at ease with, can talk to about private matters, or can call on for help?
4. How many relatives, friends, neighbors, other than (CR) do you feel you can call on for help with chores, transportation, etc.?
5. When other people you know have an important decision to make, do they talk to you about it?
6. In the past month, how often has someone, such as a family member, friend or neighbor, other than (CR), provided transportation, pitched in to help you do something that needed to get done, like household chores or yard work, and/or helped you with shopping?
7. Overall, how satisfied have you been in the past month with the help you have received with transportation, housework and yard work, and shopping?
8. In the past month, how often has someone been there with you (physically) in a stressful situation, provided comfort to you, or expressed concern about your well-being?
9. In the past month, how satisfied have you been with the support, comfort, interest and concern you have received from others?
10. In the past month, how often has someone given you information and guidance on some action? For example, they made a difficult situation clearer and easier to understand or told you what they did in a similar situation?
11. Overall, how satisfied in the past month have you been with the suggestions, clarifications, and sharing of similar experiences you have received from others?
12. In the past month, how often have others made too many demands on you?
13. In the past month, how often have others been critical of you?
14. In the past month, how often have others pried into your affairs?
15. In the past month, how often have others taken advantage of you?
16. In the past six months, do you feel the amount of help and support that you receive from others has improved?

Coding for these 16 items varies since some ask how often something occurs; others how many people can or do provide help; still others ask how satisfied the caregiver is with support received. The first 11 items are all ordinal measures ranging from 0 to 3,0 to 4 , or 0 to 5 with higher scores indicating greater social support. Items 12 through 15 are ordinal measures ranging from 0 to 3 with higher scores indicating less support. The last item is listed as "no" (coded 0 ) if support has not improved and "yes" (coded 1) if it has. Coding was reversed on items 12 through 15 and the 16 items were added together to create a composite social support score with a possible range from 0 to 54 with higher scores indicating greater social support. The resulting variable actually ranged from 1 to 53 with a mean of 30.4 and standard deviation of 9.5 . Frequency distributions for the 16 items are presented in Table 3. A principle components factor analysis was performed on all 16 items and two factors emerged. Of the 16 items, 12 items loaded on the first factor which explained $32 \%$ of the variance in the items and four items loaded on the second factor which explained $14.8 \%$ of the variance. The 12 questions that loaded on the first factor ask how often someone helps and satisfaction with help. The other four questions ask how often others made demands on the caregiver, been critical, pried in affairs, and taken advantage of. Given the previous use of this index as a single measure of social support, my theoretical interest in social support as a single dimensional construct, the large variance explained by the first factor, and high correlation between the two factors, I chose to treat the 16 items as a single
construct measuring social support. Cronbach's Alpha was run on the entire set of indicators with a reliability statistic of .87 .

Desire to Institutionalize was measured by six items in the Desire to Institutionalize section of the REACH II questionnaire. These items measure the caregiver's thoughts about and potential plans to institutionalize the CR. Caregivers were asked to answer "yes" (coded 1 ) or "no" (coded 0 ) to the following questions.

1. In the past six months, have you considered a nursing home, boarding home or assisted living for (CR)?
2. In the past six months, have you felt that (CR) would be better off in a nursing home, boarding home or assisted living?
3. In the past six months, have you discussed the possibility of a nursing, boarding home or assisted living with family members or others?
4. In the past six months, have you discussed that possibility with (CR)?
5. In the past six months, have you taken any steps towards placement?
6. In the next six months, are you likely to move (CR) to another living arrangement?

These six items were summed to produce a "Desire to Institutionalize Score" with a possible range from 0 (caregiver answered "no" to all six questions) to 6 (caregiver answered "yes" to all six questions). Actual scores ranged from 0 to 6 with a mean of 1.1 and a standard deviation of 1.4. The frequency distributions for the six items in this measure are presented in Table 4. A principle components factor analysis was performed on all six items and one primary factor emerged which explained $42 \%$ of the variance in the items. A Cronbach's Alpha was run on the entire set of questions with a high reliability statistic of .72 .

## Control Variables

Several control variables are included in the analysis. Marital Status of the caregiver was measured in question 4 of the Sociodemographic Information section of the REACH II questionnaire and coded as "never married" (coded 0), "married, or living as married" (coded 1), "widowed, not currently married" (coded 2 ), "divorced, not currently married" (coded 3), and "separated" (coded 4). Over two-thirds of the caregivers were married with much smaller percentages in the other categories (see Table 1). For analysis, this variable was recoded dichotomously, combining never married, widowed, divorced, and separated together so that a code of 1 indicates respondents were currently married and 0 indicates they were not.

Years of Formal Education by the caregiver was measured in question 5 of the Sociodemographic Information section of the REACH II questionnaire. While the original questionnaire coded respondents ranging from 0 if they had no formal education to 17 for those with a doctoral degree, these were recoded into four education categories - "less than high school" (coded 0), "high school degree" (coded 1), "some college" (coded 2), and "college degree or beyond" (coded 3). Frequencies of the recoded categories are presented in Table 1. Dummy variables were created for the higher three education categories representing the effect of being in that category compared to those with less than a high school education.

The Race and Ethnicity of the caregiver was measured in questions 6 and 7 of the REACH II questionnaire. Question 6 asks about ethnicity and codes respondents as 1 if they identify as Hispanic and 0 if not. Question 7 codes respondents as "No primary group" equal 0, "White/Caucasian" equal 1, "Black/African-American" equal 2,
"American Indian/Alaska native" equal 3, "Asian" equal 4, "Native Hawaiian or other Pacific Islander" equal 5, and "Other" equal 6. Half the sample reported being "White/Caucasian" while 33\% reported being "Black/African American." Another $16.7 \%$ classified themselves as "Other," with all but one of these reporting to be Hispanic on the ethnicity question. Thus, all but one respondent was white, black or Hispanic. Hence, it was decided to use the initial ethnicity variable as a dummy to represent the effect of being Hispanic and to create a new dummy coded as 1 if the respondent was black and 0 if not, which would be used to represent the effect of being black. This allowed the effect of being Hispanic or black to be assessed relative to those not falling into either of these categories, almost of whom were white.

Current Employment Status of the caregiver was measured in question 10 of the REACH II questionnaire. The original coding was "employed at a job for pay, full-time" (coded 1), "employed at a job for pay, part-time" (coded 2), "homemaker, not currently working for pay" (coded 3), "not currently employed, retired" (coded 4), "not currently employed, not retired" (coded 5). These items were recoded as "employed at a job for pay, full-time" (coded 0), "employed at a job for pay, part-time" (coded 1), and "not currently employed" (coded 2). For analysis, 2 dummies were created, one representing full-time employment and one representing part-time employment. Table 1 presents the frequency distribution of the original variable.

Yearly Household Income of the caregiver's household is measured in question 12 of the questionnaire. Respondents were asked to choose from 11 income categories the one that best represented their current household income before taxes. The choices were less than \$5000, \$5000-\$9,999, \$10,000-\$14,999, \$15,000-\$19,999, \$20,000-
\$29,999, \$30,000 - \$39,999, \$40,000-\$49,999, \$50,000-\$59,999, \$60,000-\$69,999, $\$ 70,000-\$ 99,999$, and $\$ 100,000$ or more. Table 1 presents the frequencies for household income. Although an ordinal categorical variable, the range ( $0-10$ ) and variation (somewhat normally distributed with a mean of 4.6 and a standard deviation of 2.6) of this variable makes it feasible to treat it as a numerical variable in analysis. Thus, it was not recoded, but used "as is" during analysis.

## Analysis

Both bivariate and multivariate analysis was used to test the three hypotheses. First, to determine whether men experience less caregiver burden, receive more social support, and are less likely to place care recipients in a nursing home than women, a t-test was used to compare the mean caregiver burden, social support, and desire to institutionalize scores of men and women. A t-test is appropriate given the three dependent variables are numerical variables whose mean can be compared across the two categories defined by the dichotomous independent variable sex. Next, multiple regression was used to assess the effect of gender on each of the three dependent variables while controlling for other variables. First, a regression model was assessed with caregiver burden as the dependent variable and the gender dummy, the marital status dummy, the three education dummies, the two race dummies, the two employment status dummies, and the income variable as independent variables. Similar models with social support score and desire to institutionalize as the dependent variable were also assessed. Finally, since it is theoretically feasible and implied in the literature that caregiver burden
and social support are related to desire to institutionalize, a model in which these variables are added as controls was also assessed.

## RESULTS

As can be seen in Table 1, almost $80 \%$ of the caregivers in the sample are female. Most are married ( $67.1 \%$ of the females and $63.9 \%$ of the males). While over half ( $57.7 \%$ ) of the sample have at least some college, males are much more likely to be college graduates ( $38 \%$ compared to $24.1 \%$ ). Half the samples are white, a third are black, and a sixth are other races. Almost a third (32.8\%) reported being Hispanic, including almost all of those classified as other races (107 out of 108). There are minimal sex differences by race.

Over a third of respondents (36.9\%) are retired, while almost a third (32\%) works at least part time. Males are more likely to be retired ( $50.9 \%$ of the males compared to $34.0 \%$ of the females) or work part-time ( $13.9 \%$ of the males compared to $7.3 \%$ of the females), while females are more likely to be employed full-time ( $24.8 \%$ of the females and $17.6 \%$ of the males), making this sample of caregivers different from the general population of caregivers as indicated by the literature. Economically, most of the samples household incomes fall between $\$ 10,000$ and $\$ 40,000$ annually, with few differences between the males and females.

To test the hypothesis that men have lower caregiver burden scores than women, I performed an independent measures $t$-test to compare the mean burden score of the two groups. The mean caregiver burden score for women was 19.3 while the mean for men was 16.5 for a mean difference of $2.8(t=2.6, p=.008)$. Since this probability is less than
alpha of .05 , I reject the null hypothesis and conclude that there is a significant difference in the mean burden score for men and women, with men experiencing less burden than women. This supports my original hypothesis (See Table 5).

In order to test the hypothesis that men have higher social support scores, I performed an independent measures $t$-test to compare the mean social support score of men and women. The mean social support score for women was 31.2 while the mean for men was 28.6 for a mean difference of $2.6(t=2.5, p=.011)$. Since this probability is less than alpha of .05 , I reject the null hypothesis and conclude that there is a significant difference in the mean social support score for men and women, with women having more social support than men. Interestingly, this is the opposite of what I expected to find. (See Table 5).

In order to test the hypothesis that men have lower desire to institutionalize scores than women, I performed an independent measures t-test to compare the mean of the two groups. The mean desire to institutionalize score for women was 1.1 while the mean for men was 1.3 for a mean difference of $-.2(t=-1.2, p=.214)$. Since this probability is more than alpha of $.05, \mathrm{I}$ fail to reject the null hypothesis and conclude that there is not a significant difference in the mean desire to institutionalize score for men and women (See Table 5).

In order to test the hypothesis that men have lower caregiver burden scores than women when controlling for the sociodemographic variables such as marital status, years of formal education, race and ethnicity, current employment status, and yearly household income category, I performed ordinary least squares multiple regression. As can be seen in Table 6, the regression coefficient assessing the effect of being male was -3.3 , which
indicates the average caregiver burden score of men was 3.3 points lower than the average for women when controlling for the other variables. The probability of getting a difference this large if being a man had no effect on caregiver burden is $p=.001$. Since this is below my alpha level of .05 , I reject the null of no effect and conclude that when controlling for marital status, education, race, employment status, and income category, being a man has a significant negative effect on caregiver burden score. Other variables in the model with significant effects include having some college which increased caregiver burden scores by 3.4 points, being a college graduate which increased scores by 5.7, being Black which decreased scores by 4.1 , and working full-time which increased scores by 2.8 points. The R -squared for the model was .12 ( $F=7.8, p<.01$ ) indicating the variables in the model explain only a small fraction (12\%) of the variation in caregiver burden score.

Testing the hypothesis that men have higher social support scores than women when controlling for marital status, years of formal education, race and ethnicity, current employment status, and yearly household income category, I performed ordinary least squares multiple regression. As can be seen in Table 7, the regression coefficient assessing the effect of being a man was -2.4 , revealing the average social support score of men was 2.4 points lower than the average for women when controlling for the other variables. The probability of getting a difference this large if being male had no effect on social support was .02 . Since this is below my alpha level of .05 , I reject the null of no effect and conclude that when controlling for marital status, education, race, employment status, and income category, being a man has a significant negative effect on social support score. Other variables in the model with significant effects include being married
which increased the social support score by 3.5 points, having some college which decreased scores by 2.7 points, being Hispanic which decreased scores by 3.3, and income category, with one level increase in income category increasing social support by .47 points. The R-squared for the model was .11 ( $F=7.0, p<.01$ ) indicating the variables in the model explain only a small fraction ( $11 \%$ ) of the variation in social support score.

To test the hypothesis that men have lower desire to institutionalize scores than women when controlling for marital status, years of formal education, race and ethnicity, current employment status, and yearly household income category, I performed ordinary least squares multiple regression. As can be seen in Table 8, the regression coefficient assessing the effect of being a man was .15 , implying the average desire to institutionalize score of men was .15 points higher than the average for women when controlling for the other variables. The probability of getting a difference this large if being a man had no effect on social support was .3 . Since this is more than my alpha level of .05 , I fail to reject the null of no effect and conclude that when controlling for marital status, education, race, employment status, and income category, being a man has no significant effect on desire to institutionalize score. The only variable in the model with a significant effect was the income variable which increased the desire to institutionalize score by .06 points. The R -squared for the model was .06 ( $F=3.7, p<.01$ ) indicating the variables in the model explain very little (6\%) of the variation in desire to institutionalize score.

An additional regression analysis was performed to see if adding caregiver burden score and social support score to the desire to institutionalize model altered the outcome. As can be seen in Table 9, the regression coefficient assessing the effect of being a man
remained .3 , meaning the average desire to institutionalize score of men was .3 points higher than the average for women when controlling for the caregiver burden score, social support score, and other variables. The probability of getting a difference this large if being a man had no effect on social support was .06 . Since this is higher than my alpha level of .05 , I again fail to reject the null of no effect and conclude that when controlling for caregiver burden score, social support score, marital status, education, race, employment status, and income category, being a man has no significant effect on the desire to institutionalize score. Not surprisingly, caregiver burden score was significant and increased the desire to institutionalize score by .05 points for each point increase and income category remained significant, increasing the desire to institutionalize score by .06 points. Social support was not significant. The R-squared for the model was 14 ( $F=7.6, p<.01$ ) indicating the variables in the model explain only $14 \%$ of the variation in desire to institutionalize.

## CONCLUSIONS AND IMPLICATIONS

Similar to previous research (Russell 2004; Calasanti and King 2007; Sanders 2007), this analysis found that men have lower caregiver burden scores than women. Even when controlling for sociodemographic variables, men have significantly less burden than women. Perhaps, as some researchers suggest, differences in gender socialization lead women to focus more on the relationship and emotional aspects of caregiving (Cancian and Oliker 2000) while men focus more on the successful completion of caregiving tasks (Calasanti and King 2007). The result is that women experience more emotional and psychological distress while men may actually gain a
sense of accomplishment. Additionally, women who are a part of the sandwich generation may experience greater caregiver burden when they are responsible for the care of children and aging parents at the same time. Helping elderly parents with personal and household care, errands, financial assistance while raising dependent children or helping their young adult children with college or childcare, adds another layer to their burden (Plerret 2006). Caring for a child, especially multiple children, and an aging parent or parents complicates an already stressful situation (Williams 2005). These "women in the middle" (Brody 2006) may be responsible for more care than their men counterparts. Similarly, for women, caregiving for an elderly family member may simply be an extension of a lifelong caregiving role, while for men is it novel, providing them with a new late life role and a new source of identity (Cahill 2000). It may also be that the types of hands-on personal care that women often provide is more stressful than the types of care provided by men, who are more likely to rely on other informal or paid caregivers for these more stressful tasks (Gandel 2010; Ginzler 2010). For example, Carter et al. (2012) report wives provide $31 \%$ more hours of spousal care for their husbands with Alzheimer's Disease than husbands provide for wives with Alzheimer's Disease. Some scholars also suggest that men's higher levels of involvement in the workplace provides them with a respite from caregiving tasks and keeps them involved in the world outside of caregiving, thus reducing caregiver burden (Russell 2004). However, this analysis found that man/woman differences in burden persist even when employment status is controlled. Also, women in this study are more likely to be employed full-time than men, so the outlet of employment may not be an indicator of less
caregiver burden at home. Additional research investigating reasons for these gender differences in caregiver burden is needed.

Contrary to earlier research that says men receive more social support (Sanders 2007; FCA 2011), this analysis revealed that women caregivers receive more social support than men caregivers even when controlling for various sociodemographic variables. While it is not clear why this is the case, perhaps the fact that the care recipients in the data were all Alzheimer's patients or perhaps the self-selection sampling procedure favored the selection of subjects who were more outgoing and likely to seek out both formal and informal support accounts for the difference. Also, contrary to what is found in the general population of caregivers, in this sample, more women were employed full-time than males increasing their outside contact and the potential for social support from coworkers, a reason often cited for higher levels of social support received by men. Regardless of the explanation, this difference from previous research suggests that additional study of man/woman differences in social support is required.

Previous research addressing gender differences in the desire to institutionalize care recipients was limited and inconclusive, with the few studies that found differences tending to suggest women, at least Western women, were slightly less likely to institutionalize care recipients than men (Brown University 1996). Perhaps unsurprisingly, this analysis found no significant difference in either gender having a desire to institutionalize their care recipient even when controlling for sociodemographic variables. The sociodemographic variable of income did have a significant effect, with the desire to institutionalize increasing as income increased. This is possibly due to the caregiver being able to afford nursing home care for their care recipient. However, it
should be explained that the variation in the desire to institutionalize variable was minimal, suggesting these results should be interpreted with caution and additional research is needed.

This research contributes to the growing body of literature that studies men as caregivers. A strength of this research is the data come from a REACH II study based on a sample containing a large number of variables (890). Though only a few variables were used for this analysis, this data could be used for further research looking at the many variables gathered. Another strength is the caregiver had to have been giving care for at least six months and would have to assume they would still be in the area for a six month follow up, so the data came from caregivers who have had several months in the caregiving role. As stated before, the data set did not contain a simple, direct measure of sex/gender. Instead, a variable had to be created based on health examinations considered to be gender specific. This is not necessarily a limitation as there was a straightforward way of determining the sex/gender of the caregivers.

Despite the strengths, there are several limitations to this study. This data set did not contain variables for dates of birth or age for caregivers or care recipients so it was impossible to control for age in these analyses. Future research should seek to include ages for the caregiver and care recipient when investigating gender differences in caregiver burden, social support, and desire to institutionalize. Additionally, the sample is not technically a probability sample, given that respondents were identified and recruited from specific agencies and organizations using a self-selection process and all were providing care for Alzheimer's patients. Nevertheless, it is hoped that they generally represent Alzheimer's caregivers in the broader population. Since this sample
only contained caregivers of Alzheimer's patients, a more diverse group of care recipients may have provided a broader representation of caregivers in different types of caregiving situations. Also, as in the general population of caregivers, the caregivers in the data set were disproportionately female. Oversampling of male caregivers might have permitted a more revealing comparison.

As stated earlier, the desire to institutionalize variable was limited in its variation reducing its usefulness in differentiating between respondents. Racial variation in the sample was also somewhat limited and future research should examine gender differences in caregiving in different racial groups. Finally, as a quantitative project, this study is limited in what it can show about qualitative differences in the caregiving experience of men and women. Future studies using qualitative methods are needed to fully address these issues.

Research on men caregivers shines a light on a perspective that challenges traditional gender norms and roles. The findings of this study can be used to better understand men caregivers and how support can be given to aid them in their informal caregiving endeavors. Men caregivers are different from women caregivers. These differences must be taken into account and supportive programs and services should be developed that recognizes both the unique strengths and weaknesses that male caregivers bring to the task. There is a need to provide more respite services so men can recharge and take a break from the often mundane job of caregiving. 'Workshops' or support groups should facilitate conversation with other caregivers who have more experience in the caregiving role and may have tips and ideas for constructively dealing with caregiving issues like isolation or how to communicate better with the care recipient,
services that help the care recipient, and creating social supports for emergency situations. Men caregivers should be provided with information about institutionalization options, as well as information on home and community based care so the recipient is able to stay in the home as long as possible. Gerontologists and other geriatric health professionals have an opportunity to connect with caregivers and their care recipients to provide information on successful caregiving and should have knowledge of issues specific to men as they may be different than women caregiver issues. This can include the different ways males access help, cope with changes, solve problems, and facing unique gender role issues in the community.

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## APPENDICES

## Appendix A: Tables

Table 1. Sample Characteristics

| Variable | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Gender (N=640)* |  |  |
| Female | 532 |  |
| Male | 108 | 79.4 |
|  |  | 16.1 |
| Marital Status (N=643) | 76 |  |
| Never Married | 429 | 11.8 |
| Married | 33 | 66.7 |
| Widowed | 93 | 5.1 |
| Divorced | 12 | 14.5 |
| Separated |  | 1.9 |
|  | 126 |  |
| Education (N=643) | 146 | 19.6 |
| Less than high school degree | 201 | 22.7 |
| High School degree | 170 | 31.3 |
| Some college | 26.4 |  |
| College degree or beyond |  |  |
|  | 320 | 50.0 |
| Race and Ethnicity (N=643)** | 214 | 33.3 |
| White | 108 | 16.7 |
| Black | 211 | 32.8 |
| Other Race |  |  |
| Hispanic (vs. non-Hispanic) | 152 | 23.6 |
|  | 54 | 8.4 |
| Employment Status (N=643) | 130 | 20.2 |
| Employed Full-Time | 237 | 36.9 |
| Employed Part-Time | 70 | 10.9 |
| Homemaker, not employed |  |  |
| Not employed, retired |  |  |
| Not employed, not retired |  |  |
|  |  |  |

## Table 1. Sample Characteristics (Continued)

| Variable | Frequency | Percent (\%) |
| :--- | :---: | :---: |
| Yearly Income Before Taxes $(\mathrm{N}=613)$ |  |  |
| Less than $\$ 5,000$ | 22 | 3.6 |
| $\$ 5,000-\$ 9,999$ | 48 | 7.8 |
| $\$ 10,000-\$ 14,999$ | 84 | 13.7 |
| $\$ 15,000-\$ 19,999$ | 69 | 11.3 |
| $\$ 20,000-\$ 29,999$ | 109 | 17.8 |
| $\$ 30,000-\$ 39,999$ | 79 | 12.9 |
| $\$ 40,000-\$ 49,999$ | 59 | 9.6 |
| $\$ 50,000-\$ 59,999$ | 38 | 6.2 |
| $\$ 60,000-\$ 69,000$ | 34 | 5.5 |
| $\$ 70,000-\$ 99,999$ | 45 | 7.3 |
| $\$ 100,000$ or more | 26 | 4.2 |

*The Gender category does not add up to $\mathbf{1 0 0 \%}$ since gender could not be determined for three respondents.
** The Race and Ethnicity categories do not add up to $\mathbf{1 0 0 \%}$ since respondents could report being Hispanic and being in another racial category.

Table 2. Indicators of Caregiver Burden

|  | Never F (\%) | Rarely <br> F (\%) | $\begin{aligned} & \text { Sometimes } \\ & \mathrm{F}(\%) \end{aligned}$ | Quite Frequently F (\%) | Nearly Always F (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Not enough time for self ( $\mathrm{n}=643$ ) | 89 (13.8) | 69 (10.7) | 250 (38.9) | 131 (20.4) | 104 (16.2) |
| Stressed caring for CR \& family ( $\mathrm{n}=643$ ) | 63 (9.8) | 42 (6.5) | 256 (39.8) | 159 (24.7) | 123 (19.1) |
| $\begin{aligned} & \text { Angry around CR } \\ & (\mathrm{n}=643) \end{aligned}$ | 273 (42.5) | 144 (22.4) | 188 (29.2) | 34 (5.3) | 4 (.6) |
| CR negatively affects family relationships ( $\mathrm{n}=641$ ) | 327 (51.0) | 70 (10.9) | 150 (23.4) | 63 (9.8) | 31 (4.8) |
| Strained around CR $(\mathrm{n}=643)$ | 287 (44.6) | 75 (11.7) | 193 (30.0) | 59 (9.2) | 29 (4.5) |
| Health suffered due to caregiving ( $n=641$ ) | 246 (38.4) | 57 (8.9) | 209 (32.6) | 90 (14.0) | 39 (6.1) |
| Social life suffered due to caregiving $(\mathrm{n}=642)$ | 235 (36.6) | 57 (8.9) | 161 (25.1) | 102 (15.9) | 87 (13.6) |
| Lost control $(\mathrm{n}=643)$ | 166 (25.8) | 58 (9.0) | 190 (29.5) | 103 (160) | 126 (19.6) |
| No privacy $(\mathrm{n}=643)$ | 231 (35.9) | 68 (10.6) | 177 (27.5) | 88 (13.7) | 79 (12.3) |
| Could do better job $(\mathrm{n}=641)$ | 172 (26.8) | 72 (11.2) | 213 (33.2) | 100 (15.6) | 84 (13.1) |
| Should be doing more $(\mathrm{n}=642)$ | 248 (38.6) | 78 (12.1) | 181 (28.2) | 69 (10.7) | 66 (10.3) |
| Uncertain what to do ( $\mathrm{n}=642$ ) | 264 (41.1) | 69 (10.7) | 206 (32.1) | 51 (7.9) | 52 (8.1) |

Table 3. Indicators of Social Support

| 3A | $\begin{gathered} \text { Not at all } \\ \text { F (\%) } \end{gathered}$ |  | $\begin{aligned} & \hline \text { A little } \\ & \text { F (\%) } \end{aligned}$ | $\begin{gathered} \text { Moderately } \\ \text { F (\%) } \end{gathered}$ | $\begin{gathered} \hline \text { Very } \\ \text { F (\%) } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Satisfied with help from family ( $\mathrm{n}=642$ ) | 146 (22.7) |  | 132 (20.6) | 136 (21.2) | 228 (35.5) |  |
| Satisfied with help received ( $\mathrm{n}=632$ ) | 165 (26.1) |  | 105 (16.6) | 148 (23.4) | 214 (33.9) |  |
| Satisfied with support from others $(\mathrm{n}=636)$ | 99 (15.6) |  | 142 (22.3) | 171 (26.9) | 224 (35.2) |  |
| Satisfied with suggestions ( $\mathrm{n}=632$ ) | 158 (25.0) |  | 154 (24.4) | 157 (24.8) | 163 (25.8) |  |
| 3B | $\begin{aligned} & \text { None } \\ & \text { F (\%) } \end{aligned}$ | $\begin{gathered} 1 \\ \mathrm{~F}(\%) \end{gathered}$ | $\begin{gathered} 2 \\ \mathrm{~F}(\%) \end{gathered}$ | $\begin{aligned} & \hline 3 \text { or } 4 \\ & \text { F (\% ) } \end{aligned}$ | $\begin{aligned} & \hline 5 \text { to } 8 \\ & F(\%) \end{aligned}$ | $\begin{gathered} 9+ \\ F(\%) \end{gathered}$ |
| How many heard from past mo. $(\mathrm{n}=642)$ | 20 (3.1) | 36 (5.6) | 66 (10.3) | 176 (27.4) | 160 (24.9) | 184 (28.7) |
| How many feel close to $(\mathrm{n}=642)$ | 38 (5.9) | 62 (9.7) | 124 (19.3) | 210 (32.7) | 134 (20.9) | 74 (11.5) |
| How many call on for help ( $\mathrm{n}=641$ ) | 95 (14.8) 1 | 114 (17.8) | 8) 175 (27.3) | 175 (27.3) | 58 (9.0) | 24 (3.7) |

Table 3. Indicators of Social Support (continued)

| 3C Never <br>  $\mathbf{F}(\%)$ | Seldom F (\%) | $\begin{gathered} \text { Sometimes } \\ \text { F (\%) } \end{gathered}$ | Often Very <br> often <br> F (\%) <br>   | Always $\mathbf{F}(\%)$ |
| :---: | :---: | :---: | :---: | :---: |
| Other people help $65(10.1)$ <br> with decisions $(\mathrm{n}=641)$ | 58 (9.0) | 242 (37.8) | 115 (17.9) 88 (13.7) | 73 (11.4) |
| 3D | $\begin{aligned} & \hline \text { Never } \\ & \text { F (\%) } \end{aligned}$ | Once in a while F (\%) | Fairly often $\mathrm{F}(\%)$ | $\begin{gathered} \hline \text { Very often } \\ \mathrm{F}(\%) \end{gathered}$ |
| How often someone helps ( $\mathrm{n}=643$ ) | 195 (30.3) | 251 (39.0) | ) 101 (15.7) | 96 (14.9) |
| How often someone comforts ( $n=641$ ) | 146 (22.8) | 254 (39.6) | ) 142 (22.2) | 99 (15.4) |
| How often someone given info ( $n=641$ ) | 199 (31.0) | 289 (45.1) | ) $107(16.7)$ | 46 (7.2)) |
| Too many demands ( $\mathrm{n}=643$ ) | 270 (42.0) | 204 (31.7) | ) $106(16.5)$ | 63 (9.8) |
| Others critical of you ( $\mathrm{n}=631$ ) | 321 (50.9) | 217 (34.4) | ) 57 (9.0) | 36 (5.7) |
| Others pried into affairs ( $\mathrm{n}=643$ ) | 388 (60.3) | 170 (26.4) | 45 (7.0) | 40 (6.2) |
| Others taken advantage of you $(\mathrm{n}=643)$ | 383 (59.6) | 163 (25.3) | 58 (9.0) | 39 (6.1) |
| 3E | $\begin{gathered} \mathrm{NO} \\ \mathrm{~F}(\%) \end{gathered}$ |  | $\begin{gathered} \hline \text { YES } \\ \text { F (\%) } \end{gathered}$ |  |
| Did help improve $(\mathrm{n}=643)$ | 374 (58.2) |  | 269 (41.8) |  |

Table 4. Indicators of Desire to Institutionalize

|  | NO <br> $\mathbf{F}(\%)$ | YES <br> F (\%) |
| :--- | :---: | :---: |
| Considered nursing home <br> (n = 643) | $452(70.3)$ | $191(29.7)$ |
| CR be better off in nursing home <br> (n = 640) | $551(86.1)$ | $89(13.9)$ |
| Discussed nursing home with <br> others (n = 643) | $403(62.7)$ | $240(37.3)$ |
| Discussed nursing home with CR <br> (n = 643) | $508(79.0)$ | $135(21.0)$ |
| Taken steps toward placement <br> (n = 643) | $597(92.8)$ | $46(7.2)$ |
| Likely to move CR to nursing <br> home (n $=617)$ | $581(94.2)$ | $36(5.8)$ |

Table 5. T-Test Results

|  | Mean for <br> Women | Mean for <br> Men | Difference In <br> Means | T-Statistic |
| :--- | :---: | :---: | :---: | :---: |
| Caregiver Burden Score | 19.29 | 16.54 | 2.76 | $2.6^{* *}$ |
| Social Support | 31.19 | 28.61 | 2.58 | $2.5^{*}$ |
| Desire to Institutionalize | 1.06 | 1.25 | -.190 | -1.243 |

$$
\begin{aligned}
* p & <.05 . \\
* * p & <.01 .
\end{aligned}
$$

Table 6. Effect of Gender and Control Variables on Caregiver Burden Score

|  | Regression Coefficient | Beta | Probability |
| :---: | :---: | :---: | :---: |
| (Constant) | 19.066 |  | . 000 |
| Male | -3.301 | -. 127 | . 001 |
| Marital Status | -1.701 | -. 082 | . 051 |
| HS Diploma | 1.749 | . 075 | . 165 |
| Some College | 3.380 | . 158 | . 007 |
| College Graduate | 5.707 | . 256 | . 000 |
| Hispanic | -. 940 | -. 045 | . 374 |
| Black | -4.123 | -. 197 | . 000 |
| Part-Time Employment | -1.260 | -. 036 | . 367 |
| Full-Time Employment | 2.839 | . 122 | . 007 |
| Income Variable | -. 064 | -. 017 | . 741 |

Table 7. Effect of Gender and Control Variables on Social Support Score

|  | Regression Coefficient | Beta | Probability |
| :--- | :---: | :---: | :---: |
| (Constant) | 28.892 |  | .000 |
| Male | -2.351 | -.095 | .019 |
| Marital Status | 3.467 | .173 | .000 |
| HS Diploma | -1.462 | -.065 | .244 |
| Some College | -2.738 | -.134 | .029 |
| College Graduate | -1.309 | -.062 | .338 |
| Hispanic | -3.278 | -.162 | .002 |
| Black | 1.318 | .066 | .177 |
| Part-Time Employment | 1.030 | .030 | .461 |
| Full-Time employment | -1.103 | -.050 | .282 |
| Income Category | .465 | .129 | .015 |
| $\boldsymbol{R}^{\mathbf{2}=\mathbf{1 1 0}, \boldsymbol{F}=\mathbf{7 . 0}, \boldsymbol{p}<\mathbf{0 1 .}}$ |  |  |  |

Table 8. Effect of Gender and Control Variables on Desire to Institutionalize Score

|  | Regression Coefficient | Beta | Probability |
| :--- | :---: | :---: | :---: |
| (Constant) | .638 |  | .007 |
| Male | .153 | .041 | .322 |
| Marital Status | .105 | .034 | .431 |
| HS Diploma | .097 | .028 | .614 |
| Some College | .348 | .111 | .071 |
| College Graduate | .338 | .104 | .108 |
| Hispanic | -.270 | -.088 | .094 |
| Black | -.240 | -.078 | .109 |
| Part-Time Employment | -.040 | -.008 | .851 |
| Full-Time Employment | .047 | .014 | .769 |
| Income Variable | .064 | .117 | .030 |

$R^{2}=.061, F=3.7, p<.01$.

Table 9. Effect of Gender, Caregiver Burden, Social Support, and Control Variables on Desire to Institutionalize Score

|  | Regression Coefficient | Beta | Probability |
| :--- | :---: | :---: | :---: |
| (Constant) | -.404 |  | .257 |
| Male | .299 | .079 | .057 |
| Caregiver Burden Score | .047 | .318 | .000 |
| Social Support Score | .006 | .041 | .364 |
| Marital Status | .168 | .055 | .206 |
| HS Diploma | .042 | .012 | .827 |
| Some College | .245 | .078 | .203 |
| College graduate | .099 | .031 | .640 |
| Hispanic | -.226 | -.073 | .164 |
| Black | -.086 | -.028 | .570 |
| Part-Time Employment | -.034 | -.007 | .875 |
| Full-Time Employment | -.061 | -.018 | .700 |
| Income Variable | .058 | .105 | .049 |
| $\boldsymbol{R}^{2}=\mathbf{1 4 4} \boldsymbol{F} \boldsymbol{7 5 8} \boldsymbol{p r i n}$ |  |  |  |

$R^{2}=.144, F=7.58, p<.01$.

## Appendix B: IRB Approval

# MIDDLE <br> TENNESSEE 

STATE UNIVERSITY

January 18, 2013
Lori Watson, Brandon Wallace
Department of Sociology
Inw2m@mtmail.mtsu.edu, Brandon.Wallace@mtsu.edu
Protocol Title: "Male Caregivers to the Elderly Care Recipient: Comparing Female and Male Caregivers"

## Protocol Number: 13-175

Dear Investigator(s),
The exemption is pursuant to 45 CFR 46.101(b) (4). This is because the research being conducted involves the collection or study of existing pathological or diagnostic specimen that is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

You will need to submit an end-of-project report to the Compliance Office upon completion of your research. Complete research means that you have finished collecting data and you are ready to submit your thesis and/or publish your findings. Should you not finish your research within the three (3) year period, you must submit a Progress Report and request a continuation prior to the expiration date. Please allow time for review and requested revisions. Your study expires on January 18, 2016.

Any change to the protocol must be submitted to the IRB before implementing this change. According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to provide a certificate of training to the Office of Compliance. If you add researchers to an approved project, please forward an updated list of researchers and their certificates of training to the Office of Compliance before they begin to work on the project. Once your research is completed, please send us a copy of the final report questionnaire to the Office of Compliance. This form can be located at www.mtsu.edu/irb on the forms page.

Also, all research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion. Should you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,
Andrew W. Jones
Compliance Office
615-494-8918
Compliance@mtsu.edu

