

AN ABSTRACT OF THE DISSERTATION OF

Mary P. Russell-Miller for the degree of Doctor of Philosophy in Human Development and Family Studies presented on November 1, 1996. Title: The Influence of Caregiver Role Satisfaction and Perceived Control as Mediating Variables on Levels of Depression Resulting from Caregiver Stress,

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Clara C. Pratt

A cognitive appraisal model of stress posits that mediators affect the relationship between stressors and outcome. Consistent with this model, this study investigated the influence of two mediating variables on outcomes for adult daughters who give care to their elderly mothers. The central research question was: In adult daughters who provide care to their dependent elderly mothers, is the relationship between caregiver stressors and the outcome of self-reported depression mediated by levels of situation-specific perceived control and caregiver role satisfaction? The stressors associated with caregiving included level of dependency, marital conflict, coresidence of mother and daughter, available income, and employment status.

The sample consisted of 75 caregiving adult daughters who volunteered for a longitudinal study concerning mother-daughter relationships in adulthood (Walker, 1986). Investigation used data from the third wave, collected in 1988-1989. The sample consisted of daughters with partners, married or cohabiting. Data were collected in face-to-face interviews, conducted in the home. Participants received a small amount of money at the time of interview.

Findings indicate that caregiving role satisfaction is an important mediator between the stressors of giving care and the outcome, depression. Marital conflict had important direct effects within the model. High levels of marital conflict were predictive of lower caregiver role satisfaction and higher rates of depression. Employment status had a direct effect on perceived control with higher levels of control being associated with not being employed and lower levels associated with part and full-time employment.

Overall, the findings of this research did not fully support the hypothesized model. Specifically, the hypothesized mediators of psychosocial resources of situation-specific perceived control and caregiver role satisfaction, did not combine to influence outcome. However, evidence for caregiving role satisfaction as a significant mediator in the stress response is an important finding, thus, caregiver role satisfaction is a significant factor in the cognitive appraisal of the caregiving situation and an important mediator between stressors and outcome.

The Influence of Caregiver Role Satisfaction and Perceived Control as Mediating
Variables on Levels of Depression Resulting from Caregiver Stress

by

Mary P. Russell-Miller

A DISSERTATION

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

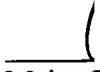
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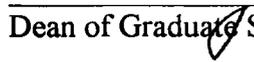
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This dissertation is dedicated to

Alan D. Miller

My loving husband, best friend, and biggest fan.

You helped make this possible for me.

The Influence of Caregiver Role Satisfaction and Perceived Control as Mediating Variables on Levels of Depression Resulting from Caregiver Stress

CHAPTER 1

INTRODUCTION

Caregiving for dependent elderly family members is often assumed to be stressful. The stresses associated with caring revolve around the physical and emotional demands that take their toll on the personal life of the caregiver and are presumed to be inherent in a caregiving relationship (Braithwaite, 1992; George, 1994; George & Gwyther, 1986; Jones & Peters, 1992; Miller, McFall, & Montgomery, 1991; Shulz, Visintainer, & Williamson, 1990). The definition of stress varies according to one's theoretical perspective. One common aspect found in the variety of stress definitions is that stress is related to demands (Bee, 1992; Chiriboga, Weiler, & Nielsen, 1990; Holroyd & Lazarus, 1982; Kaplan, 1980; Kimmel, 1990; Magnusson, 1982; Thomas, 1992). It is the perception of the demands and the effects of any possible mediating variables that will influence outcome (Corey & Corey, 1993; Endler & Edwards, 1982; Holroyd & Lazarus, 1982; Magnusson, 1982).

This dissertation examined the relationship among potential stressors, psychosocial mediators, and an outcome variable within the context of adult daughters' caregiving to their elderly mothers. Figure 1 contains the conceptual model for this study. Potential stressors are defined as situational determinants that are both perceived and actual. Stressors are classified by caregiving contexts, psychosocial contexts, and structural

contexts. The classification of caregiving contexts consists of level of dependence of the mother, which is further broken down into the categories of activities of daily living (ADLs) and instrumental activities of daily living (IADLs). The psychosocial contexts are level of marital conflict within the adult daughters' marriage and whether the mother lives with the daughter. Structural contexts of interest are the amount of available income and the employment status of the caregiving daughter.

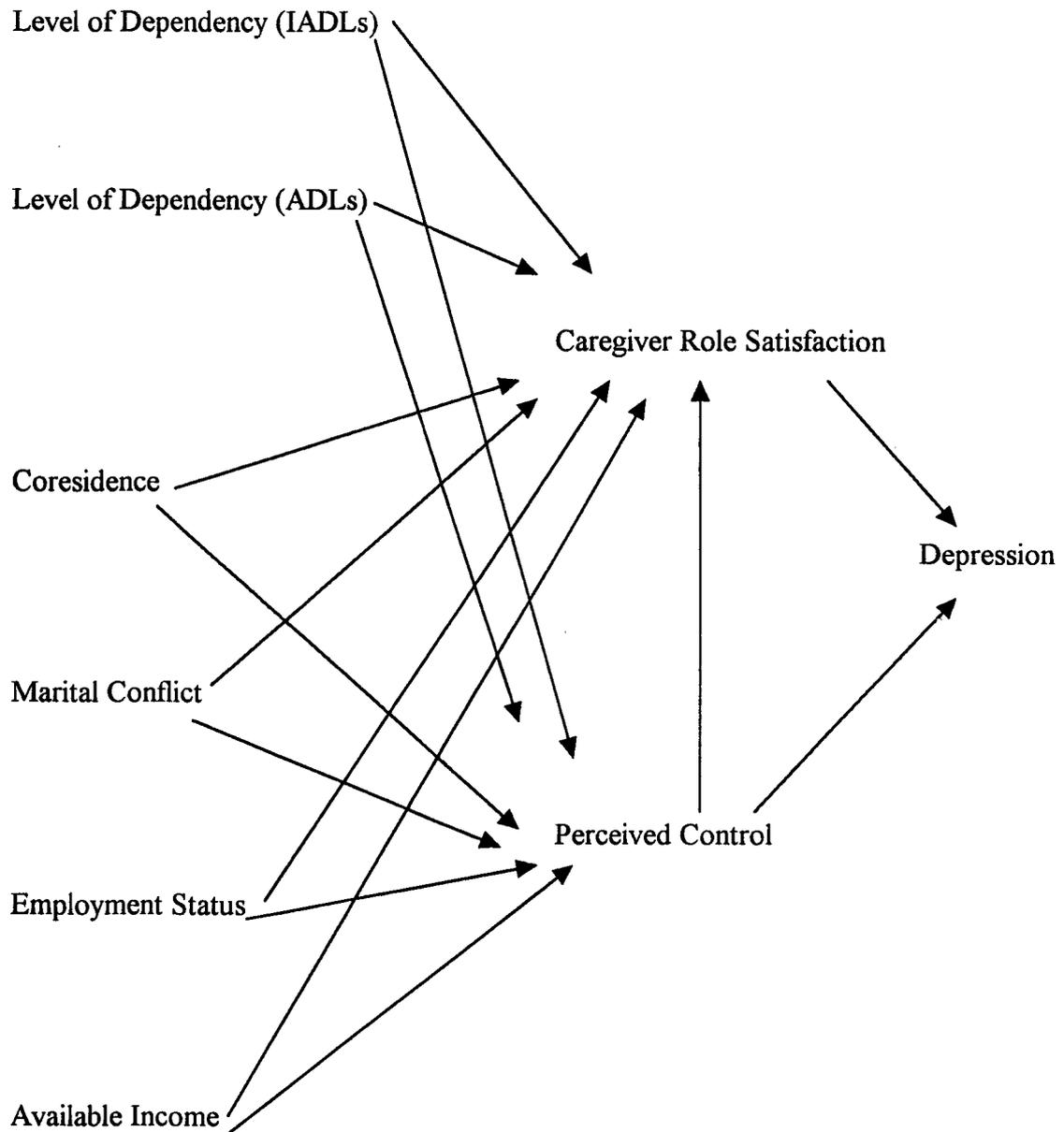


Figure 1. Path-analytic model illustrating influence of mediating variables on levels of depression resulting from caregiver stress.

Mediators reflect the psychosocial processes of perceived levels of situational control and role satisfaction specific to the caregiving situation. Depression, a form of psychological distress, serves as the outcome variable.

The underlying theoretical assumption adopted regarding stress is interactionist. The interactionist approach focuses on an individual's perception of a situation. The objective level of stress is interpreted by the individual based on whether the demand exceeds one's perceived capacity to deal with the stressor effectively. Therefore, stress has two aspects, the actual stressor and the perception of the stressor. It is the perception and subsequent appraisal of a situation and its demands that will greatly influence the effect the stressor has on the individual (Bee, 1992; Holroyd & Lazarus, 1982; Magnusson, 1982).

Appraisal is identified as a mediating psychological process involving evaluation and judgment and is cognitive in nature. It imbues a situation or event with meaning (Holroyd & Lazarus, 1982; Lazarus & Folkman, 1984). As a perceptual process, cognitive appraisal also reflects one's attributions of the stressor's experienced. It is how we make sense of our experiences. Both role satisfaction and perceived control have the potential to bring meaning to the caregiving situation. Thus, in the model depicted in Figure 1, caregiver role satisfaction and domain-specific perceived control are conceptualized as psychosocial mediators that are influenced by levels of stress as well as affecting the potential outcome of stress, depression.

Support for conceptualizing caregiver role satisfaction as a mediator of caregiver stressors is found in Krause's (1991) investigation of relationships among stressful events, domain-specific assessments of life satisfaction, and global evaluations of life satisfaction. His findings support the theory that stressors within a particular life domain influence feelings of satisfaction specific to that domain. These domain-specific feelings then combine to produce a global appraisal of life satisfaction. The model is domain-specific to

caregiving with the outcome variable reflecting a more global assessment of psychological well-being as evidenced by self-reported depression.

Krause (1994) also asserts that the effects of stressors on levels of life satisfaction are mediated by perceptions of control. This explanation emphasizes the importance of role-specific measures. Krause maintains that it is within a specific role that consequences will be evidenced. The assumption is that stressors in salient roles influence perceptions of domain-specific control and subsequently global life satisfaction. Past examinations of the relationship between stress and undesirable outcomes concerning adult daughters' role of caregiving to their mothers have failed to look at the possible mediating effect of caregiver role satisfaction and perceived control in the caregiving situation. In earlier studies, role satisfaction and perceived control have been identified as outcome variables and their measurement has depended upon global assessments not specific to the role of caregiving. This study utilizes domain-specific measures of role satisfaction and perceived control. Caregiving appears to be a salient role and as such merits analysis that deals with the specific nature of the caregiving situation.

Some prior caregiving research has traditionally proceeded from a stress framework that views the effects of stress as being mediated by social support and coping skills (Pearlin, Mullan, Semple, & Skaff, 1990). The current study investigated the effects of stress, but adopted caregiver role satisfaction and domain-specific perceived control as the important mediators. It was hypothesized that effects of potential stressors directly influenced levels of perceived domain-specific control and caregiver role satisfaction that then mediated those effects on global well-being assessed as self-reported depression.

The focus on self-reported depression as an outcome of caregiving is solidly based in caregiving literature. The association between increased rates of depression and caregiving to elderly with memory problems has been documented repeatedly (Dura, Stukenberg, & Kiecolt-Glaser, 1990; George & Gwyther, 1986; Parks & Pilisuk, 1991; Shulz, et al. 1990; Tennstedt, Carrerata, & Sullivan, 1992). Depression in adult daughter caregivers to mothers who are not cognitively impaired has received little attention from researchers. This study looked specifically at adult daughters who care for their elderly mothers who are not cognitively impaired.

Unlike previous research, this study did not focus solely upon the negatives associated with caring for a dependent elder. Although potentials for detrimental effects for the caregiver are acknowledged, research findings are not conclusive. Positive outcomes have also been associated with caregiving. Considering that effects may be either negative or positive, it is the appraisal of stressors that largely determines how they are interpreted and their resulting effects.

It was hypothesized that levels of caregiver satisfaction and perceived control would be influenced by the amount of perceived and actual stress within the caregiving situation. If stress levels are low, the measurement of these psychosocial variables will reflect high levels of both role satisfaction and perceived control. These mediators will then influence the outcome of depression by alleviating the possible detrimental effects of stress on psychological well-being. It was also hypothesized that perceived control will influence levels of caregiver role satisfaction, with higher levels of perceived control leading to greater caregiver role satisfaction.

In summary, this study examined the relationship between potential stressors, psychosocial mediators, and depression within the situation of adult daughters giving care to their elderly mothers. Specific caregiving stressors of dependence level of care recipient, level of marital conflict, employment status, coresidence, and available income were seen as influencing levels of perceived control and caregiver role satisfaction. These psychosocial mediators were conceptualized as influencing levels of depression. The outcome variable of depression reflected the effects of caregiving stress.

CHAPTER 2

LITERATURE REVIEW

The main body of Chapter 2 is a literature review that is divided into five sections. These sections include a discussion of caregiving, potential stressors, psychosocial mediators, depression, and a summary. The first section of the literature review will survey caregiving, focusing on adult caregivers to elderly parents.

Sections two through four follow the proposed conceptual model (see Chapter 1, Figure 1). This model represents the proposed relationship between potential stressors, psychosocial mediators, and outcomes for adult daughters who give care to their elderly mothers. The model proposes that caregiver stress influences psychosocial mediators that in turn influence outcome. Specifically, the second section of the literature review details research on potential caregiving stressors.

Potential stressors are classified in three categories: caregiving context, psychosocial contexts, and structural contexts. Caregiving context includes the variable of dependence level of the care recipient. Psychosocial contexts incorporate the variables of whether the dependent elder lives with the adult child and level of possible marital conflict within the adult daughters' marriage. Structural context variables include employment status of the caregiving daughter and daughters' available income.

The third section of the literature review describes the role of psychosocial mediators in influencing the effects of stress upon outcome. The two psychosocial mediators chosen for examination are caregiver role satisfaction and domain-specific

perceived control. The possible mediating effects of these variables for adult caregivers involved in elder care are examined from both theoretical and research perspectives.

The fourth section of the literature review examines depression as a potential outcome of caregiver stress. Discussion is specific to depression as a measure of psychological distress and its relation to dependent elder care. The fifth section summarizes the literature review. The remainder of Chapter 2 describes the purpose of this study and proposes a central research question along with specific hypotheses generated from the conceptual model.

Literature Review

Caregiving

Definitions of caregiving and caregivers vary. As a result there is a confusing welter of ideas and assumptions regarding the realities of caregiving and being a caregiver. According to the Random House dictionary (1991), a caregiver is someone who cares for an individual who is sick or disabled. Care can be defined as feelings of concern, worry, or protection. Care, in this sense, is the emotional component of a sense of commitment towards another's well-being. Care is also defined as being responsible for another's well-being. This definition includes the physical activities one accepts for an individual who is dependent due to illness or physical frailty. It is the behavioral expression of care that constitutes caregiving (Pearlin et al., 1990).

Realities of Caregiving

As we enter late adulthood the realities of an aging body may make caregiving necessary. The aging process can lead to increasing dependence and infirmity (Fries, 1993; Stuart-Hamilton, 1994). Caring for elderly relatives is associated with burden, stress, and a host of psychological and physical costs (Creasy, Myers, Epperson, & Taylor, 1990; George, 1994; George & Gwyther, 1986; Jones & Peters, 1992; Miller, et al., 1991; Parks & Pilisuk, 1991; Shulz, 1990; Young & Kahana, 1989; Wallhagen, 1992). The assumption of negative consequences of caregiving has been supported by a plethora of research studies. It is from the framework of negative consequences that a sizable portion of caregiving research is conducted.

Generally, American family members accept the responsibility to care for elderly dependent relatives (Albert, 1992; Brody, Litvin, Albert, & Hoffman, 1994; Parks & Pilisuk, 1991). A sizable portion of these caregivers are adult children (Miller & Montgomery, 1990; Rabin et al., 1993; Young & Kahana, 1989) who represent approximately 37% of informal caregivers (Stephens & Franks, 1995). It is estimated that 80% of adult caregiving children are women, with the majority of these being daughters (Albert, 1992; Miller & Montgomery, 1990; Mui, 1995). Research studies consistently find the detrimental effects of caregiving to be worse for women. In many studies where caregivers are compared in terms of their relationship to the care recipient, it is often found that adult daughters report more negative impact than adult sons or spouses who give care (Jones & Peters, 1992; Mui, 1995; Parks & Pilisuk, 1991; Rabin et al., 1993).

Negative Effects of Caregiving

The idea that adult caregiving daughters are caught between competing role demands that create tremendous levels of stress has fueled much research. The notion of “women in the middle” (Brody, 1981) has received popular acceptance. Women who give care are often viewed as victims stuck between the demands of caring for a dependent elder and other family responsibilities. Demands are excessive and the capacity to meet these demands is compromised by their sheer number. The result is high levels of stress that lead to adverse outcomes for the caregiver. Being a “woman in the middle” implies a life characterized by depression, helplessness, frustration, and exhaustion.

Caregiving to the elderly almost always involves responding to changes in the care-recipient’s ability to function independently (Braithwaite, 1992). Over time, independence can be gradually compromised by losses in physical and/or mental function that result in more dependence. Braithwaite refers to this as a “crisis of decline” (p. 17). This increase in dependency is frequently associated with the most troublesome aspects of caregiving. As the care recipient becomes more dependent it is assumed that feelings of hopelessness and frustration become more profound for the caregiver. The situation becomes more unpredictable, threatening the caregiver’s sense of control, and the constraints on time become more onerous.

In a review of the caregiving literature, Zarit (1990) concludes that, as a group, caregivers to the elderly report a variety of negative consequences. These include both physical and mental health problems. When compared to control groups caregivers consistently report higher levels of stress, lower levels of well-being, lower quality of life, and poorer mental health (Braithwaite, 1990; Chiriboga et al., 1990; George, 1994; Jones

& Peters, 1992; Miller et al., 1991; Parks & Pilisuk, 1991; Rabin, Bressler, & Prager, 1993; Shulz et al., 1990; Stoller & Pugliesi, 1989). It appears that the possibility of adverse psychological outcomes from caregiving is well established.

One outcome from caregiver stress is level of reported burden. Burden can be globally defined as perceptions of strain or discomfort that result from caregiving (George & Gwyther, 1986; Jutras & Veilleux, 1991; Miller & McFall, 1992; Miller et al., 1991; Rabin et al., 1993; Thompson, Futterman, Gallagher-Thompson, Rose, & Lovett, 1993). In assessing burden researchers generally incorporate both objective and subjective dimensions. Thus, not only the amount and level of physical tasks performed but one's perceptions of how these tasks affect one's life are reflected in level of caregiver burden.

Stull, Kosloski, and Kercher (1994) contend that burden is so strongly associated with caregiving that the expectation of burden shapes the behavior of the caregiver. Caregivers often assume that caregiving is burdensome. Once the assumption of burden is adopted, the meaning of caregiving is established. Stull, Kosloski, et al. contend that burden reflects an attributional process that is based in this negative assumption about caregiving. Further, it is highly likely that caregivers positively relate the amount of time spent caregiving with level of burden. The more time that is spent caregiving, the higher the level of reported burden.

Positive Effects of Caregiving

If we accept the idea that reported burden is a process of attribution, the notion that caregiving could also have positive outcomes needs to be considered. Several

researchers have supported this assumption (Allen & Walker, 1992; Kahana & Young, 1990; Orbell & Gillies, 1993; Rabin et al., 1993; Stoller & Pugliesi, 1989; Walker, Martin, & Jones, 1992; Walker, Shin, & Bird, 1990). Orbell and Gillies maintain that although the demands of caregiving may significantly affect levels of strain and dissatisfaction, caregiving can also contribute to enhanced self-worth because it is inherently rewarding. Rabin et al. view caregiving as a developmental opportunity for adult child caregivers. They visualize caregiving as providing the opportunity for individuation and, as such, an occasion for growth.

In an investigation into how caregiving may affect the relationship between caregiver and care recipient, Walker, Shin, and Bird (1990) found that approximately 50% of their sample reported improved relationship satisfaction as a result of the caregiving situation. This included both the caregiving adult daughters and their elderly mothers. In support for social exchange theory, the authors contend that the emotional rewards of caregiving are considerable. The benefits of an improved relationship have the possibility to counteract any costs or negative effects. In fact, a growing number of researchers are finding that the concepts of caregiver burden and “women in the middle” are too simplistic, noting that many factors contribute to how caregiving affects one’s life (Spitze & Logan, 1990; Stull, Bowman, & Smerglia, 1994).

Many variables affect outcomes for women who give care to dependent elders (Stull, Bowman, et al., 1994). The effects of caregiving are influenced not only by appraisal, but also by a myriad of other factors such as where the women is in terms of the life course, how much the other members of her family are involved in the parent’s care, the age and level of dependence of her children, and the dependence level of the care

recipient. Although findings are still somewhat contradictory, we can conclude that caregiving includes a host of costs and benefits (Kahana & Young, 1990; Rabin et al., 1993).

Summary: Caregiving

In summary, caregiving for elderly parents is mainly women's work. It is women who assume the responsibility of caregiving. It is women who appear to suffer as a consequence of this situation. Yet, caregiving outcomes are a complex mixture of many factors and influences. Caregiving has, understandably, become linked with negative outcomes. Research has consistently recorded that the burdens and stresses reported with caregiving lead to decreases in well-being, both physical and emotional, and, in general, a lower quality of life. It is important to note, however, that many of the negative results are associated with caring for highly dependent, frail, and cognitively impaired elderly. Caregiving research has generally operated on the assumption that caregiving is a negative experience. What this assumption fails to address is the subjective nature of appraisal and the complex interactions of other life factors. Subjective appraisal may help explain the dichotomy between positive and negative outcomes from caregiving.

Considering the available research concerning caregiving, this study assumes the importance of subjective appraisal in influencing the outcome of caregiver stress. As a complex situation, caregiving and its related stress cannot be a simple action-reaction process. Having caregiving responsibilities does not necessarily lead to decreases in physical or emotional well-being, especially when the care recipient is not cognitively impaired. Rather, mediating influences influence the relationship between responsibilities

and other potential stressors and outcomes such as mental well-being or burden. It is the process of caregiving, how it is perceived, the effect mediating variables have on the experience of caregiving, and their subsequent influence on psychological outcome that is the focus of this study.

Potential Stressors

The experience of stress is rooted in social contexts and the roles we occupy (Pearlin, 1982). Roles have associated identities that contain what Thoits (1991) would call “behavioral scripts.” Included in these scripts are behavioral expectations as well as meaning and purpose. Caregiving brings with it the role of caregiver. Being a caregiver carries the expectations that the needs of the care recipient will be met in a timely and competent manner. Caregivers are also expected to sacrifice themselves willingly for the needs of the care recipient.

Within the social context of caregiving and the resultant role, caregiving appears to be strongly associated with stress. Stress exposure has consistently been linked with physical and mental well-being (Chiriboga et al., 1990; Pearlin et al., 1990; Stephens, Franks, & Townsend, 1994). Although stress has a variety of meanings, one common aspect is that stress is related to excessive demands (Bee, 1992; Chiriboga et al., 1990; Holroyd & Lazarus, 1982; Kaplan, 1980; Kimmel, 1990; Magnusson, 1982; Thomas, 1992). In general, the chronic stressors that appear to be related to the caregiving role are the physical demands of caring for a dependent person, the possible financial burden, the threat to established relationships due to time and energy conflicts, and the process of

watching a loved one decline (Shulz et al., 1990). These general stressors, associated with caregiving, are demanding.

Two major categories of stressors are life events and chronic strains (Chiriboga et al., 1990; Pearlin, 1982). Life events are those experiences that occur over a brief time, or are acute, and represent major life changes. Events that would reflect this category of stress would be divorce, death of a loved one, a move to a new city, anything that represents a major change. Chronic strains or stressors are experiences or problems that are continuously demanding over time (Chiriboga et al., 1990; Dura et al., 1990; Wheaton, 1990). Pearlin (1982) states that chronic strains or what he refers to as “daily hassles” arise from social roles. Although acute or episodic life events can be stressors, it is widely accepted that the persistent experiences that occur in life exert a stronger influence on well-being and mental health (Chiriboga et al., 1990; Dura et al., 1990; Lazarus & Folkman, 1984; Pearlin, 1982). Caregiving stressors fall into the category of chronic strain as they are persistently demanding over time.

Avison and Turner (1988) found that the more enduring chronic strains were, the more they significantly contributed to individual levels of depressive symptoms. In their study, chronic strain was measured as an event that lasted at least 10 months. In their sample of physically disabled subjects, the number and length of chronic strains explained the greatest proportion of variance in depression scores. Avison and Turner speculated that chronic strains produce more psychological distress because they represent unresolved, ongoing difficulties or demands.

Chiriboga et al. (1990) examined stress levels in the lives of adult children who cared for a parent who suffered from Alzheimer's disease in order to obtain a comprehensive understanding of the stress of caregivers. They looked at both stressors associated with caregiving and stressors in other areas of life. The chronic problems or the day-to-day hassles linked with caregiving were strongly associated with measures of decreased well-being. Data also indicated that the caregiving role may predispose caregivers to stress overload. As a result of overload the chronic stress of caregiving may eventually lead to the breakdown of well-being in other areas or roles.

Chiriboga et al. (1990) also found evidence that the stressors involved in caregiving do not necessarily result in declines in well-being and mental health. Some caregivers experienced tremendous burden in their role as caregiver but reported what the caregivers considered normal loads of burden and stress in other roles. These individuals were able to keep the detrimental effects of caregiving confined to the caregiving role. Other individuals thrived in the role as caregiver. These subjects perceived caregiving as a challenge and, as such, were able to turn the potentially negative stressors into positives. Chiriboga et al. contend that their findings reflect the complex nature of the relationship between objective caregiving stressors and caregiver outcomes.

An interactionist perspective helps to explain the complexity of the process of caregiver stress (Bee, 1992; Magnusson, 1982). This perspective focuses on the specific aspects of the stressful situation. Within any potentially stressful situation there are actual and perceived demands. Actual demands reflect the objective aspects of the situation while

perceived demands reflect how the actual demands are interpreted or perceived. Thus, both real and perceived demands play a role in determining the effects of stress.

In summary, caregiver stress may result from role expectations and the real and perceived demands of caregiving. Caregiving stress can be categorized as chronic. The daily physical work associated with caregiving reflects its continuously demanding nature and is an integral part of the role. Contributing to the daily demands of caregiving are the time and energy conflicts, possible financial burdens, and the emotional nature of watching a loved one decline. Caregiving demands undoubtedly affect the caregiver in diverse ways. By adopting an interactionist approach it is possible to focus on caregiving as a situation that has both actual and perceived demands.

Potential stressors within the caregiving situation for adult daughters can be broken down into three classifications (see Chapter 1, Figure 1). The first category of stressors, caregiving context, includes the dependence level of the care recipient. The second category of caregiver stressors is that of psychosocial contexts, including possible coresidence of the elder and the caregiver and the existence of marital role conflict for the caregiver. The last category reflects structural contexts and involves caregiver employment and available income.

Caregiving Context

Level of dependence. The decline of functional ability in an elder often necessitates caregiving. The amount and level of assistance needed is greatly influenced by how the elder functions on a daily basis (Miller & Montgomery, 1990). Level of dependence

reflects functional ability. If an elder's ability to perform daily activities is impaired, then a caregiver is likely to assume the responsibility of assisting in these activities. Thus, the number and nature of the activities are an accurate indicator of the level of dependence (Miller & McFall, 1992). The more tasks that require assistance, the greater the level of dependence.

Functional ability is placed into two categories. These categories are activities of daily living (ADL) and instrumental activities of daily living (IADL). ADL activities include personal care tasks such as bathing, dressing, toileting, bed transfers, and eating. IADL activities include tasks such as shopping, housekeeping, financial management, transportation outside of home, and meal preparation (Miller & Montgomery, 1990; Pratt, Sasser-Coen, Acock, & Hafner-Eaton, 1993).

The effect level of dependence has on psychological strain appears to be varied. Researchers have found differences in outcome based on amount and types of assistance provided (Brody, Dempsey, & Pruchno, 1990; Stoller & Pugliesi, 1989; Young & Kahana, 1989). Higher levels of dependence are often associated with greater caregiver distress (George & Gwyther, 1986; Jones & Peters, 1992; Pearlin et al., 1990). Walker et al. (1992), in their exploration into the possible costs and benefits of caregiving, determined that the greater the level of dependence the greater the reported level of frustration. They concluded that the costs of caregiving are lower when there were fewer needs for care.

In contrast, Stoller and Pugliesi (1989) found different results when examining the impact of opposing responsibilities on the caregiving experience of relatives who cared for community dwelling elderly. Levels of distress and depression were lessened as the

number of hours of assistance rose. Stoller and Pugliesi further explained their results by noting that those caregivers who were providing personal care, ADLs, did report more symptoms of stress than those performing IADLs. It appears that there are significant differences between the type of assistance provided.

Brody et al. (1990) investigated the psychological well-being of adult children of parents who lived in nursing homes. They found that the amount of direct assistance with IADLs that the adult children performed for their institutionalized parents was negatively associated with caregiver's depression. The more the adult children did for their dependent parents, the less likely they were to be depressed.

In summary, level of dependence as a potential stressor for caregivers appears to be influenced by the number and types of activities performed by the caregiver and the location of responsibilities. Differentiating between ADLs and IADLs provides insight into the complexity of the caregiving experience. It is not just how much one does, but also what one does that plays a role in outcome. Personal care activities are more strongly associated with negative outcome than are instrumental care activities.

Psychosocial Contexts

Coresidence. In exploring the psychological significance of caregiving, Shulz (1990) reviewed the caregiving literature and found evidence that the nature of the living arrangement between caregiver and care recipient plays a major role in predicting the level of caregiver involvement and sense of burden. Caregiving literature invariably finds evidence that coresidence results in increased levels of stress when compared to

caregivers who live independently (Brody, Litvin, Hoffman, & Kleban, 1995; Pruchno, Dempsey, Carder, & Koropecj-Cox, 1993). Situations in which the caregiver and care recipient live together generally lead to more active participation with daily care and greater limitations on the personal life of the caregiver. Walker et al. (1992) found that the costs associated with caregiving were lessened when the care recipient lived independently.

The reasons for coresidence may provide insight into the apparently higher risk of caregiver strain that is associated with sharing a household with a dependent parent. In their study investigating marital status and coresidence with dependent parents, Brody et al. (1995) examined reasons for coresidence. Level of disability of the care recipient was a significant predictor of coresidency, with the higher the disability the greater the likelihood of sharing a household. Suffering a chronic illness, experiencing a physical health event such as a stroke or heart attack, or suffering cognitive decline were the most common reasons for coresidence cited by their sample of adult daughters.

The next most common reason for sharing a household was the loss of the previous caregiver (Brody et al., 1995). Most often this resulted from the death of a spouse. Some parents also lost caregivers who were either other relatives or hired caregivers. Another common reason given for coresidence was financial difficulties. These difficulties could be experienced by either the dependent parent or the adult daughter. Overall Brody et al. conclude that coresidence puts the adult caregiving daughter at higher risk for caregiver strain. The dependence level of the elderly parent coupled with constraints to time and energy combine to make these caregivers especially vulnerable.

Pruchno et al. (1993) investigated multigenerational households to determine how household characteristics might be related to burden, satisfaction, and perceptions of household space. They acknowledged the stressful nature of coresidence but sought to identify the dimensions of stress that were most affected by environmental factors. Adult daughters who were identified as primary caregivers reported higher levels of burden than did husbands or children. There were no significant differences between family members in levels of satisfaction.

Pruchno et al. (1993), however, did find evidence that environmental factors were responsible for heightened levels of stress. Greater feelings of subjective burden and reduced caregiver satisfaction were associated with perceptions that coresidence had resulted in losses to privacy, the ability to socialize freely in the home, and losses in actual space. Husbands appeared to be the most disrupted and had a greater inclination towards viewing the elder as intrusive.

In discussing their findings, Pruchno et al. (1993) drew several interesting conclusions. They maintain that having an elder in the home forces concessions and adaptations in the family's sense of home and what family means. The elder is not a temporary guest but becomes a central part of the family. The sense of balance a family had previously achieved regarding the environment of the home is sometimes threatened by this additional person and may also create feelings of being out of control for family members.

Jones and Peters (1992) also found convincing evidence for the negative effects of coresidence on the caregiver. In interviews with informal caregivers they found that

coresidence increased the negative effects on health, had negative impact on social life that led to feelings of loneliness, and was associated with depression. For their sample, these effects were most pronounced for caregiving daughters. The researchers concluded that caregiving within the context of coresidence exacts a tremendous cost in terms of lifestyle to caregivers and their families.

In summary, coresidence as a potential stressor appears to be strongly associated with negative outcome. Motivating factors such as significant dependence, loss of a caregiver, and financial difficulties can all contribute to the potentially negative situation. When these factors are combined with changes in the home, caregivers are at a greater risk of experiencing caregiver stress.

Marital conflict. Married caregivers face not only the demands of caregiving but the demands and responsibilities that accompany an intimate relationship (Brubaker, 1990; Walker, Pratt, & Wood, 1993). Marital status is an influential characteristic that is an important determinant of stress response. Having a partner may provide the ability to either ease or confound a potentially stressful situation (Brubaker). Conflict within the marital relationship can exacerbate the stress associated with being a caregiver (Young & Kahana, 1989). Married caregivers are often left with less flexibility in the provision of care to elderly parents (Brubaker).

In a study that examined the positive and negative spillover between the roles of caregiver and wife, Stephens and Franks (1995) found that when caregiving was a negative experience, the marital relationship suffered. The negative spillover accounted for

problems within the marriage and placed the caregiver at a higher risk for depression. In providing care to an elderly parent the caregiver can be restricted in both personal and social life. These restrictions, when combined with the emotional, physical, and financial impact of caregiving, can add to the stress associated with caregiving (Mui, 1995).

Despite the frequency with which caregiving daughters report negative effects from caregiving on their marriages, many recognize the benefits of increased self-esteem and feelings of effectiveness for their marriages (Stephens & Franks, 1995). Being married may also provide valuable support to many women. Brody, Litvin, Hoffman, and Kleban (1992) and Walker et al. (1993) found support for this contention in their respective research. Brody et al. concluded that husbands frequently provide support for their wives that give care to elderly parents. Walker et al. recognized the importance of supportive husbands for wives involved in parent care. In their sample, daughters who reported less marital role conflict also reported a better relationship with their mothers.

Investigating the impact of marital status on caregiving Brody et al. (1992) compared married, never married, divorced, and separated caregiving women. No significant differences were observed between groups in reported levels of caregiving mastery or caregiving satisfaction. Yet, the married caregivers had the perception of being better off than their nonmarried counterparts. They reported more financial resources, more social support, less loneliness, and more available help.

In subsequent research Brody et al. (1995) investigated the effect of marital status and coresidence. Data indicated that the married adult caregiving daughters in their sample reported greater socioemotional support, more available income, less depression, more

caregiving satisfaction, and had more available helpers with parent care. The married women in this sample fared much better than their divorced, widowed, separated, or never married counterparts.

In summary, Lazarus and Folkman (1984) maintain that one of the critical factors in creating stress is conflict. On the one hand, marital status can act as a protection against stress, but only in situations that are relatively problem-free. The time demands of caregiving may negatively influence available time with one's spouse leading to conflicts that can then contribute to depression. On the other hand, marriage may provide support for the strain associated with caregiving as well as contribute to feelings of self-esteem. The results are variable and dependent, partly, on the perceived existence and level of conflict.

Structural Contexts

Employment. Being employed while caregiving is often assumed to lead to negative consequences. Gottlieb, Kelloway, and Fraboni (1994) conducted a wide-scale survey of eight Canadian organizations to identify the effects of caregiving on employment. From this large sample, they selected employees who were responsible for elder care. Results indicated that those employees who provided the most personal assistance (ADLs) coupled with the management of community services and finances (IADLs) were at greatest risk for negative effects. Employees who cared for the most dependent elderly relatives, experienced the greatest distress and had the most difficulty balancing/managing family and work responsibilities. These employees also made the most

accommodations in their work schedules. Being a woman put the caregiver at greatest risk for distress and personal costs such as less time for other activities including volunteer work, leisure, socializing, relaxing, and continuing one's education.

Neal, Chapman, Ingersoll-Dayton, Emlen, and Boise (1990) conducted a comparison study among caregivers of the elderly, disabled adults, and children. Overall, caregivers had greater levels of stress associated with the combined responsibilities of caregiving, family, and work responsibilities when compared to noncaregivers. Full-time employment, when compared to part-time, created more problems in the integration of responsibilities among caregiving, work, and other family obligations for caregivers. Compared to the other groups of caregivers employed caregivers of the elderly were less likely to experience problems of psychological distress and absenteeism from work, but were at higher risk of health problems. Young and Kahana (1989) also found the effects of being an adult caregiving daughter and being employed contributed to a greater risk of negative outcomes.

Not all studies, however, indicate that employment is associated with psychological distress or negative outcomes. Stull, Bowman, et al. (1994) found no relationship between being employed and reported levels of well-being or caregiver strain. They did, however, support Neal et al's. (1990) finding that the risk of physical strain does increase for those caregivers who are employed. Stull, Bowman, et al. assert that many variables affect caregiving women and it is necessary to combine various influences to get an accurate assessment of negative outcomes.

Scharlach's (1994) investigation into the effect of combining employment and the caregiving role found that the positives associated with employment were far more significant than the negatives. Employment outside the home provided not only increased income that was beneficial in supporting care, but also provided stimulation and satisfaction. Although he did not discount the possibility of conflict between the roles of caregiver and employee, he did conclude that employment may strengthen feelings of self-efficacy and social integration that have the potential of being very beneficial to the informal caregiver. Scharlach did report one overall negative impact of work combined with caregiving, however. Working outside the home apparently created insufficient time and energy to carry out essential caregiving tasks.

In summary, employment outside the home appears to have the potential to exacerbate or reduce caregivers' stress. Additional time and energy demands of work can create conflict between the responsibilities of work and caregiving, leaving the caregiver stressed with little or no time for personal pursuits. Findings also indicate that employment has the potential of being beneficial to the caregiver. Increased income, coupled with opportunity for outside socialization and competence can provide a caregiver with relief.

As a potential stressor, employment outside the home is not just a matter of being employed or not, the extent of strain depends on various influences. The difference between full or part-time employment appears to be an important influence on outcome. Part-time employment seems to be more beneficial to the caregiver when compared to full-time employment. Neal et al.'s (1990) findings support this contention with their

conclusion that part-time employment provided the benefits of employment along with more time available to meet other responsibilities.

Another factor that influences the effect of employment appears to be the dependence of the care recipient. Gottlieb et al. (1994) maintain that caregiver employment coupled with a relatively highly dependent care recipient leads to a greater of risk of strain or stress. Taken together, the findings suggest that caregiver employment outside the home is a double-edged sword. Although part-time work may provide benefits of additional income plus adequate time off to meet caregiving responsibilities, full-time work often creates time constraints that lead to conflict with other responsibilities. When time factors are combined with other influences, such as the dependence of the care recipient, the influence of employment on caregiver distress is further complicated.

Income. Income can also be viewed as a potential stressor for caregivers.

Generally, income can be identified as a crucial factor in determining the nature and quality of family life (Voydanoff, 1991). The relationship between income and marital quality appears to be positive. For married caregivers, the availability of financial resources helps determine the amount of caregiver strain. Low socioeconomic status reflected by a limited income may place caregivers at risk when the care recipient coresides with the caregiver and lack of financial resources hinder possible physical alterations to the home (Pruchno et al., 1993). The ability to change one's home physically to accommodate a dependent elder maybe an important factor in the long-term psychological outcome for family members. Having a separate space for the elder appears to diminish negative feelings created by conflicts over available space, while the effects of reduced space may heighten feelings of burden and strain making caregiving a negative experience.

Although lack of income is associated with greater caregiver strain, Brody et al. (1992) found that for married adult daughter caregivers the income of a spouse influenced their caregiving experience positively. Higher income led to reports of lower levels of caregiver burden, better self-rated health, and the availability of more helpers for caregiving responsibilities. These effects combined to make caregiving a more positive experience for married caregivers whose spouses were employed when compared to adult daughters who were not married.

In summary, it appears that low income level is a potential stressor for caregivers. Those caregivers who have access to an adequate income also have access to more helpful resources. The burdens of care appear to be reduced with an income level that allows for greater flexibility in caregiver responsibilities. For those caregivers who are restricted

financially, it appears that caregiving, especially when the care recipient resides with the caregiver, can create greater strain.

Summary: Potential Stressors

Caregiving to the elderly is strongly associated with a variety of potential stressors. The daily demands of caregiving are an integral part of the expectations imposed by the role. Caregiving demands time and energy in meeting the physical and material needs of the dependent elder. The emotional process of watching a loved one become more dependent also contributes to caregiver stress. The ongoing nature of elder care may create chronic strain or stress.

The impact of caregiving on well-being is quite varied. Negative and positive outcomes have been documented. The true nature of caregiver stress is not easily explained by adopting an either/or stance. An interactionist's perspective of stress aids in the understanding of the complex nature of caregiver stress and allows for an explanation that incorporates both the actual and perceived demands of caregiving.

The potential stressors of caregiving include the level of dependence of the care-recipient, coresidence, existence of marital conflict, employment status of caregiver, and available income. Each of these potential stressors has been found to be related to both negative and positive outcomes for caregivers. Generally, potential stressors combine to influence outcome (Stull, Bowman, et al., 1990). Taken alone each stressor may lose significance. It is not just the existence of marital conflict or employment outside the home or coresidence that influences demand and subsequently psychological distress, it is the combination of potential stressors that seem to be most salient. As Stull, Bowman, et al. contend, it is necessary to combine influences in order to explain outcomes adequately.

Psychosocial Mediators

Differential responses are dependent on factors that intervene between stressor and outcome (Voydanoff, 1991). Krause (1990) asserts that research designed to examine the direct effects of stress falls short of explaining the stress process. The direct effect of stress on well-being has been consistently shown to have a limited impact. Krause (1990) maintains that it is psychosocial resources that intervene or mediate stress. These resources help explain the complex nature of the stress process by showing how stressors are perceived and evaluated.

Psychosocial mediators in the stress paradigm reflect the process of cognitive appraisal. Cognitive appraisal is a subjective evaluative process that intercedes between stressor and outcome (Bee, 1992; Holroyd & Lazarus, 1982; Lazarus & Folkman, 1984; Magnusson, 1982). As a mediating psychological process, cognitive appraisal involves

both evaluation and judgment that will contribute to the meaning of a situation. Lazarus and Folkman maintain that stress alone is not a sufficient cause for any particular outcome. Contributing to outcome are other variables and processes that act as mediators between stressor and outcome.

Lazarus and Folkman (1984) assert that cognitive appraisal is best understood as a process that categorizes a situation according to its significance for well-being. This reflects the evaluative nature of cognitive appraisal. The process of stress appraisal includes the possibilities of threat or challenge. Threat is best understood as something that has yet to happen, but is anticipated and is expected to have negative implications. Challenge, on the other hand, is anticipated to have the potential for gain or growth and is, thus associated with positive implications. Threat is associated with negative emotions such as anger, anxiety, fear, while challenge is associated with positive emotions such as excitement, exhilaration, and eagerness. Many stressors include both threat and challenge appraisals making stress appraisal complicated and influencing differential effects.

Chiriboga et al. (1990) also maintain that the effects of caregiving stress are dependent on a complex process that includes stressors, mediators, and responses. This paradigm views mediators as those processes that synthesize the relationship between stressor and response. Stress is demand and includes both negative and positive aspects because both may induce change. The possibility of either a negative or positive perception of stress reflects appraisal from a threat and/or challenge position. Responses are the reactions to or effects of stressors and are considered to be the consequences of stress. Mediators influence outcome by interceding between stressor and response.

Psychosocial processes are important mediators between potential stressors and particular outcomes as they affect the nature of outcome that results from stress. Lazarus and Folkman (1984) assert that commitment and belief are two of the most important factors or variables that affect cognitive appraisal. Commitment is reflected in a psychosocial expression of what is valued or meaningful. In a stressful situation, commitment not only determines what is meaningful, but what choices will be made in coping with the stressor. For caregivers, commitment is seen as an important psychosocial mediator of caregiving stress and would be reflected by level of satisfaction with the role of caregiver (Krause, 1991, 1994).

Belief, as a variable of cognitive appraisal, is reflected by an established assumption about reality (Lazarus & Folkman, 1984). In the cognitive appraisal of stress, belief helps the process of perceiving the significance of factors in the environment. In influencing coping response, belief would facilitate “what” could be done to cope. In a caregiving situation, one belief that would logically mediate stress would be perceptions of situational control. Krause (1991, 1994) also sees control as an important psychosocial mediator of caregiving stress. Commitment, as caregiver role satisfaction, and belief, reflected by level of control, represent the psychosocial mediators that comprise cognitive appraisal in the caregiving situation. These two processes will influence the effect of potential stressors on caregivers.

Caregiver Role Satisfaction

As individuals we do not have a single identity but have multiple identities that are associated with specific roles (Franks & Stephens, 1992). Role identities are self-conceptions that are based in the social roles individuals occupy. It is within roles and their identities that stress occurs. Thus, stress is role specific. The relationship between role-specific stressors and psychological distress is greatly influenced by the amount of threat experienced to the role identity. Threat can jeopardize feelings of personal control and impair feelings of effectiveness as well as affect well-being and levels of psychological distress (Franks & Stephens, 1992; Krause, 1990).

The identity associated with any role helps guide behavior by providing reasonably clear expectations (Thoits, 1987, 1991). In each social role there are rules for behavior that largely determine the expectations of the role. These rules and expectations combine to define the role socially. Expectations then provide a foundation for assessing the adequacy of role performance (Krause, 1990). As a role, caregiving to a dependent parent includes unique expectations and stressors.

These caregiving specific stressors mean that the transition to the role of caregiver to a parent involves a number of challenges and threats. The possible risks of caregiving differ by gender and are clearly greater for women (Miller & Montgomery, 1990). Among adult children who find themselves involved in parent care, estimates state that 80% are women (Albert, 1992; Miller & Montgomery, 1990; Mui, 1995). Women in American society generally have the role of being the nurturer and caretaker for their families. The responsibility for family well-being rests with them. This role expectation appears to put

women at greater risk for stress due to the heavy demands on time and energy that are inherent in the care of others (Thoits, 1987).

Caregiving is both an objective and subjective experience that requires the learning of new role behavior. The role of daughter requires respect for the parent as well as preservation of the sense of closeness. The additional role of caregiver can challenge previously held expectations concerning parents and require changes in how parents are viewed. A dependent parent represents loss of the omnipotent parent one had as a child and requires a change or adaptation in one's behavior (Rabin et al., 1993). Watching a parent become increasingly dependent is a task that requires significant change on the part of the adult child. Taken with the expectations of other roles, the addition of caregiving can also possibly create conflict (Brody, 1981; Brubaker, 1990; Neal et al., 1990; Stephens & Franks, 1992).

Daughters of elderly dependent parents appear to assume the responsibility of care even though the demands may be onerous and require changes to their personal life (Brody et al., 1994; Miller & Montgomery, 1990). Brody et al. (1990) maintain that the expectation that women meet all the needs of their families cannot be met and the disparity between what they do and what they feel they should do contributes to the ill effects of stress. The addition of the role of caregiver to a dependent parent only exacerbates the negative effects of stress from other family roles..

Caregiving role satisfaction appears to be a significant factor in the cognitive appraisal of the caregiving process and the ultimate effects of stress on well-being (Lawton, Kleban, Moss, Rovine, & Glicksman, 1989). In an attempt to map the domain of

caregiver appraisal Lawton et al. hypothesized that caregiving appraisal is multifaceted and set out to explore and confirm their suppositions. Their survey included caregivers to both demented and nondemented as well as institutionalized and noninstitutionalized dependent elders. Caregivers were a mix of family members. Although results were not consistent across samples, Lawton et al. maintain that caregiving satisfaction is a confirmed factor of caregiving appraisal and is important to the understanding of caregiver stress.

The level of caregiver role satisfaction is partly dependent on how effective the caregiver feels in the role (Franks & Stephens, 1992; Townsend et al., 1989). In other words, how the caregiver perceives she is meeting the expectations of the role will influence the level of role satisfaction. In a longitudinal study on the impact of caregiving on adult children's mental health, Townsend et al. found a significant relationship between role effectiveness and depression. They assessed caregiver effectiveness based on the answers to how satisfied caregivers were with care arrangements, decisions made concerning the dependent parent's care, and the degree to which caregivers felt they had met their goals regarding care.

Townsend et al. (1989) found that subjective role effectiveness increased and depression levels decreased when compared with initial measurement. High subjective effectiveness with the role of caregiver occurred over time for the majority of their respondents. For some caregivers, however, higher caregiver stress combined with lower subjective effectiveness to increase depression levels significantly over time. They concluded that role effectiveness plays an important role between stressor and outcome.

Franks and Stephens (1992) followed Townsend et al.'s (1989) line of inquiry by investigating the relationship between the multiple roles of caregivers and well-being. They identified role specific stressors, examined their effect on role specific adequacy or effectiveness, and then assessed the role of effectiveness as a mediator between stressor and well-being. Role adequacy was assessed by addressing questions concerning role specific personal control and self-worth. The researchers justified the combination of these two indices by stating that they are both involved as mediators in the stress process, both are aspects of the self, and that their sample size limited them statistically. Findings indicated that greater role stress was associated with lower levels of role adequacy and poorer well-being. They concluded that role adequacy was a psychological mechanism that mediated between stressor and well-being.

The salience or value of the caregiver role is also an element in the level of caregiver role satisfaction. Salience is based on the meaning and purpose that is attached to the caregiving role (Thoits, 1991). As a psychosocial process, the level of role satisfaction that is felt by the caregiver involves evaluation and judgment of the caregiver role. The process of evaluation and judgment reflects the level of commitment on the part of the caregiver and acts as a cognitive appraisal of caregiving stress (Holroyd & Lazarus, 1982; Kramer, 1993; Lawton, Moss, Kleban, Glicksman & Rovine, 1991; Lazarus & Folkman, 1984). The level of commitment will then reflect the salience of the caregiver role.

In summary, the role of caregiving to dependent parents has unique expectations and stressors. Normal aging combined with possible frailty due to illness or disease can

create a situation in which the adult child caregiver must learn to cope with changes in how they view their parents and their responsibilities for their parents physical and social well-being. The potential stressors of whether the elder resides with the caregiver, employment status of the caregiver, available income, the level of dependence of the care recipient, and the possibility of conflict with one's spouse/partner combine to create demands that are situation-specific to caregiving. The response or outcome of these demands is mediated by the psychosocial process of cognitive appraisal in the form of caregiver role satisfaction.

Caregiver role satisfaction has been identified in separate studies as related to effectiveness and adequacy (Franks & Stephens, 1992; Townsend et al., 1989). Franks and Stephens viewed effectiveness as a subjective perception that was highly dependent on how satisfied the caregiver was regarding how she or he met the responsibilities of parent care. Adequacy (Townsend et al.) was also a subjective perception of both personal control and self-worth. Self-worth entailed assessment of satisfaction with the caregiver role. Each of these studies concluded that role satisfaction (effectiveness -- adequacy) was a significant mediator between the stressors associated with caregiving and outcome.

The importance or value of the caregiving role is also relevant to the level of satisfaction a caregiver feels with the role. How the role is evaluated will determine the level of commitment to the role. Commitment in turn, influences what is meaningful and what choices can be made in coping with the stressors associated with caregiving to a dependent parent. Caregiver role satisfaction is then, a process of cognitive appraisal that will mediate the effects of stressors on well-being.

Control

Research in the area of control has received considerable attention. Control has been identified as a number of different constructs. These include self-efficacy, choice, mastery, autonomy, and self-directedness (Rodin, 1990). Whatever the identifying word, high levels of control have been associated with mental health, well-being, reduced stress, life satisfaction, and increased motivation (Bandura, 1977; Krause, 1991, 1994; Krause, Herzog, & Baker, 1992; Perlmutter, Monty, & Chan, 1986; Rodin, 1990; Rowe & Kahn, 1987; Taylor & Brown, 1994; Wallhagen, 1993).

Early conceptualizations of control focused on internal versus external control (Rotter, 1966). In this early conceptualization external control reflected an individual's attributions of events that were created by some force that was not contingent on one's actions, that is, external. Internal control reflected attributions of events being contingent upon one's actions. For years this concept of control held considerable sway in psychological research and theory. Though Rotter (1975) sought a more complex explanation of control, this simple internal-external conceptualization persisted.

Subsequent research determined that control is multidimensional and situation specific (Krause, 1990, 1994; Perlmutter et al., 1986; Skinner & Connell, 1986; Thompson & Spacapan, 1991). Defining control as a global construct it can be identified as an act of power or regulation (Random House, 1991) over one's environment or self. A very useful distinction concerning control is that of perceived control. Perceived control is the perception that certain aspects of life are manageable and that there is a potential to influence an outcome by making choices and engaging in behavior that increases the

probability of obtaining a desirable outcome and avoiding a negative one (Krause, 1990; Perlmutter et al., 1986; Rodin, 1986, 1990; Wallhagen & Kagan, 1993).

Wallhagen and Kagan (1993) focused specifically on caregiving in their study of perceived control. They maintain that the caregiving situation is frequently viewed as uncontrollable. Braithwaite (1992) contends that this perception of uncontrollability is due to the unpredictable nature of caregiving. Increasing dependence of the care recipient creates a situation that changes often. This constant change lessens the amount of predictability. The actual need for assistance coupled with the caregiver's perception of need not only influences the situation and its demands, but also the level of perceived control (Wallhagen & Kagan). Perceived control is then seen as a result of an appraisal process. Wallhagen and Kagan argue that the influence of perceived control is a mediator between the stressors of caregiving and their two outcomes of interest, depression and life satisfaction.

The importance of the situation to an understanding of perceived control is underscored by Krause's (1994) investigation into salient social roles, feelings of control, and life satisfaction. Krause's theoretical basis is that the impact of stressors is dependent on the role in which the stress is experienced. This theoretical orientation assumes that stressors are domain or role specific. In a comparison of models that utilized global and role-specific measures of perceived control, Krause found that role-specific feelings of control were more significant in mediating the effects of stressors on life satisfaction than were global feelings of control.

Taylor, Lichtman, and Wood (1984) also found support for the significance of the situation on feelings of control. In their inquiry involving adjustment to breast cancer, they found the relationship between feelings of control and favorable effects to be significant. The more perceived control that was reported the higher the correlation with adjustment. Finding a way to modify the course of the disease reflected a shift from the factors that were uncontrollable (e.g., why I got the disease) to factors that were controllable and more situation specific (e.g., what can I do now).

Perceived control in a specific situation or role will act as a psychosocial mediator between stressors and outcome (Gatz, Siegler, George, & Tyler, 1986; Krause, 1994; Krause et al., 1992; Lazarus & Folkman, 1984; Wallhagen, 1993). According to Lazarus and Folkman, control is one type of belief that influences the process of cognitive appraisal and outcome of caregiving stress. As a representation of cognitive appraisal, perceived control mediates the effects of stress by allowing for an evaluation of the stressor or situation. This evaluation then influences what can be done to cope with the stress.

The level of perceived control then appears to mediate the impact of stress. Levels of perceived control will determine how potential stressors are interpreted and the type of response that results (Rodin, 1986). Franks and Stephens (1992) included measures of personal control in their assessment of caregiver adequacy. From their results they concluded that there was a significant mediating effect of caregiver role adequacy on the effects of stress. Unfortunately, Franks and Stephens did not isolate their measures of control and role satisfaction to determine if there were differential effects for one over the other. They did, however, conclude that lower levels of caregiver role adequacy were

associated with decreases in well-being when compared with caregivers who had higher levels of subjective role adequacy.

Wallhagen (1993) stresses the importance of perceived control in the caregiving situation as responsible for positive caregiver adaptation. Without a perception of control the ability to manage caregiving could lead to feelings of helplessness and hopelessness resulting in depression. The caregivers in her sample reflected how a sense of control influences the emotional dimension of adaptation to caregiving. Higher levels of perceived control were associated with greater levels of life satisfaction, fewer subjective symptoms of stress, and lower levels of depression. Krause et al. (1992) found additional support for the mediating effects of perceived control in their investigation into the possible benefits of providing support to others. Those individuals who experienced increased feelings of control also reported less psychological distress.

In summary, the construct of control has been associated with stress levels and well-being. Appropriately high levels of control have been demonstrated to reduce the effects of stress and to enhance well-being. In recent years, researchers have provided evidence that it is one's perceptions of control in specific situations that are the most relevant (Krause, 1994; Krause et al., 1992; Wallhagen, 1993) to mediating the effects of situation or role specific stress. Control is neither unidimensional nor two dimensional. Rather control is multifaceted and situation specific.

As a type of belief, perceived level of control in the caregiving situation is a factor of cognitive appraisal that influences the assessment of stressors and responses. Situation-specific perceived control acts as an important psychosocial mediator for the potential effects of caregiver stress and will influence outcome.

Summary: Psychosocial Mediators

Stress response is not a direct process that consists of the demands of stress followed by reaction. Responding to stress demands is a complex process that includes both the person and the situation. Stress response is dependent on the nature of the stressors, the situation, and how they are perceived by the individual. Perceptions of stress are reflected in the cognitive appraisal of the stressors. Cognitive appraisal acts as a means of determining whether the stressor will be perceived as a threat or a challenge. As a psychological process, cognitive appraisal mediates the effects of stress by evaluating the meaning of a situation.

Threat and challenge are two forms of stress appraisal that can occur simultaneously or in varying degrees apart from each other. These appraisals will determine the effects of stress. Whether a situation is evaluated as threat, challenge, or both is dependent on the specific demands of a situation and the level of commitment and belief, which are personal factors that influence appraisal.

Specific situations will involve distinctive demands that will affect the nature of the stress and the evaluation. In this respect, stress and its appraisal are dependent upon the situation. Caregiving to dependent elderly parents is a unique situation that involves specific role behavior, expectations, and demands. Both negative and positive effects of caregiver stress have been documented. These mixed results illustrate the complexity of stress response. Demand can be evaluated as a threat or challenge or combination, with this process being influenced by the level of commitment and belief experienced by the caregiver.

Lazarus and Folkman (1984) identified commitment and belief as two important factors or variables of cognitive appraisal. They influence cognitive appraisal by establishing the salience of the situation for one's well-being, allowing for an understanding of the situation, and by providing a basis for evaluating outcomes. Applying these to the caregiving situation they reflect caregiver role satisfaction and level of perceived control. The level of caregiver role satisfaction will reflect the importance attached to the role as well as an evaluation of how one is meeting the responsibilities of caregiving. As a form of belief, the level of perceived control within the caregiving situation has its basis in an assumption about caregiving. It reflects expectations about the responsibilities of caregiving that accompany the role.

The stressors of caregiving and their effects appear to be mediated by caregiver role satisfaction and perceived level of control within the caregiving situation. Research findings have consistently found evidence that indicates both of these psychosocial mediators play important roles in determining the effects of caregiver stress (Franks & Stephens, 1992; Krause, 1990, 1994; Krause et al., 1992; Lawton et al., 1989; Taylor et al., 1984; Townsend et al., 1989; Wallhagen, 1993; Wallhagen & Kagan, 1993). As psychosocial processes, the situation-specific mediators of caregiving satisfaction and perceived control influence outcome through cognitive appraisal. Yet, a question remains as to the direction through which these psychosocial mediators act to influence the impact of caregiver stress.

For example, in Krause's (1990) research into stress and well-being in later life, he made no assumption about the direction of causality between his variables of role-specific

personal control and role-specific self-esteem on his outcome of psychological disorder.

He preferred a model that correlated the constructs and did not infer a temporal ordering.

In contrast, Lazarus and Folkman (1984) make an assumption regarding the order through which commitment and belief act. Beliefs, including sense of control influence what is perceived as fact and thus influence one's assessment of the situation in terms of the environment. Commitment influences what is important and meaningful in the situation. Lazarus and Folkman make the inference that the ability to control an event subsequently affects how that event is appraised. How "in control" the caregiver feels will affect how satisfied the caregiver is with her role as caregiver to her dependent parent, which will then affect outcome.

Caregiver role satisfaction and level of perceived control within the caregiving situation are important mediators between the demands of stress and subsequent outcome. Caregiving to a dependent parent is a specific situation that has consistently been viewed as stressful. How these specific stressors are evaluated is dependent not only upon the demands of the situation, dependence level of care recipient, whether the elder lives with the caregiver, possibility of marital conflict between caregiver and spouse, employment status, and available income, but how those demands are evaluated. The cognitive appraisal of stress involves level of perceived control in caregiving and caregiver role satisfaction as two mediators that are significant factors in the determination of whether stress is perceived as threat or challenge and ultimate outcome.

Depression

In general, the chronic stresses associated with caregiving appear to contribute to negative outcomes in caregiver's mental health (George, 1994). Caregivers, when compared to noncaregiving controls, frequently report increases in psychiatric symptomology and illness as a result of caregiving (Shulz et al., 1990). Chronic caregiver stress, when combined with the unpredictable and uncontrollable nature of caregiving, work together to influence the amount and type of negative outcome for the caregiver (Avison & Turner, 1988; Chiriboga et al., 1990; Dura et al., 1990; Lawton et al., 1991; Mirowsky & Ross, 1990; Shulz et al., 1990; Thoits, 1987; Townsend, Noelker, Deimling & Bass, 1989; Wallhagen & Kagan, 1993). Declines in mental health or well-being that are experienced through caregiving are often characterized as reflecting levels of depressive symptomology (Brubaker, 1990; Chiriboga et al., 1990; Dura et al., 1990; George & Gwyther, 1986; Lawton et al., 1991).

Depression appears to be one of the most commonly used indicators of stress response and is thought to be the representative affective response to the stress and strains associated with caregiving (Chiriboga et al., 1990; Dura et al., 1990; George & Gwyther, 1986; Lawton et al., 1991). Depression is considered a mood disorder and reflects a pervasive emotion that affects daily life in a persistent and arduous manner (American Psychiatric Association, 1994). In its simplest identification, depression would be associated with a pervasive sadness and loss of interest in life.

A clinical diagnosis of major depression is dependent on a cluster of symptoms that occur over specified time periods. According to the DSM-IV (American Psychiatric

Association, 1994) the symptoms are loss of interest or pleasure; a depressed mood identified by words such as sad, depressed, hopeless, discouraged, down in the dumps; appetite changes; sleep disturbances; cognitive impairment such as memory problems, difficulties concentrating, or making decisions; psychomotor disturbance evidenced by either agitation or retardation; feelings of worthlessness; and thoughts of death or suicide ideation.

A clinical diagnosis of major depression is made if at least five of the above symptoms are present nearly every day during a two-week or longer period (American Psychiatric Association, 1994). Milder depressive symptoms are also of consequence. They can represent a dysthymic disorder that is characterized by chronic, less severe depressive symptoms. Dysthymic disorder is associated with a depressed mood that is persistent over an extended time and is a risk factor for developing clinical depression. Most commonly, dysthymic disorder involves feelings of inadequacy; decreased activity, effectiveness, or productivity; general loss of interest or pleasure; feelings of irritability or excessive anger; feelings of guilt about the past; and social withdrawal. For caregivers, these characteristics could result in a profound effect on themselves as well as on the care recipient. The repercussions of depression could be decrements in the quality of care provided, which would affect the care-recipient in negative ways (Tennstedt et al., 1992).

Several researchers have found evidence for increased levels of risk for depressive disorders to be associated with gender, low income, unemployment, personal task demands, lack of perceived control, high levels of burden, and high levels of stress (Avison & Turner, 1988; Chiriboga et al., 1990; Dura et al., 1990; Lawton et al., 1991; Tennstedt

et al., 1992; Wallhagen, 1992; Wallhagen & Kagan, 1993). Each of these indicators of risk is associated with caregiving and can imply a higher risk for caregivers.

Dura et al. (1990) found a relationship between the chronic strains of caregiving and the onset of depression for caregivers of demented spouses. These researchers examined caregiving as a chronic life strain that involved being subjected to problems that were consistently demanding, unpredictable, uncontrollable, and unchangeable. Their data indicated that the chronic strains of caregiving are closely related to the onset of depressive disorders. A noteworthy aspect of this research was the finding of no relation between prior depressive disorders, or family history, in identifying caregivers who were at risk for depression.

Dura et al. (1990) maintain that depression is the characteristic affective response to the burdens of caregiving. The unpredictable and uncontrollable nature of caregiving to a demented spouse lends itself to a type of living bereavement described by many of the participants in their study. The emotional impact of watching a loved one deteriorate is exacerbated by the loss of personality and intellect associated with dementing illness. Although it is difficult to generalize results from caregivers of demented individuals to caregivers of noncognitively impaired individuals, it is important that the similarities of the situation be noted. Caregiving to dependent elderly persons is often unpredictable and uncontrollable regardless of cognitive ability. The course of aging is often toward increasing dependence and this also has the potential for significant emotional impact.

In a study exploring the rates of depression among caregivers to physically impaired elders, Tennstedt et al. (1992) found evidence indicating a direct relationship

between the negative impact of caregiving tasks and depressive symptoms. Negative impact reflected changes in one's personal life as a result of caregiving. Caregivers were asked to rate whether there were changes for the better, worse, or none in the following areas as a result of their caregiving activities: finances, potential or current employment, leisure activities, management of personal and household chores, marriage, physical health, and relationships with children. Findings supported the contention that it was not caregiving tasks that were linked to depressive symptoms, but the impact tasks had on the personal life of the caregiver.

It is important to note, however, that Tennstedt et al.'s (1992) data could not support their initial hypothesis that caregiver's depressive symptoms were independent of caregiver's sociodemographic characteristics. Being a woman, having poor health, and being unemployed accounted for a significant amount of risk for depressive symptomology in their sample. Yet, Tennstedt et al. report that the associated risk of depression is "above and beyond" the caregiver's personal characteristics and that the negative impact of caregiving is related to depressive symptomology.

Tennstedt et al. (1992) also reported that depressive symptoms are more likely to be evident in spouses and adult children who give care than other relatives or nonrelatives. Overall, this investigation provided additional support for the contention that depression is associated with the stressors of caregiving. Their findings suggest the influence of some type of mediator between the stresses associated with caregiving tasks and depression. The impact caregiving stress had on the personal lives of the caregivers in their sample implies the influence of cognitive processes. These researchers added a cautionary note to

their results in that they acknowledged the possibility that the measurement of depressive symptoms could reflect transitory situations rather than the enduring caregiving situation.

Shulz et al. (1990) maintain that although the literature on the relationship between caregiving and depression is convincing, it needs to be viewed as suggestive. They argue that the nature of caregiving demands is conducive to periods of transitory dysphoric mood that would reflect depression. These would include grief, despair, helplessness and hopelessness. In general, Shulz et al. state that caregivers report significant levels of depressive symptoms when compared with noncaregiving controls, but making the leap from reported psychological distress to psychiatric illness warrants careful consideration.

In summary, depression appears to be the representative affective response to the demands of caregiving. Depressive disorders are generally characterized as being mood disorders that involve pervasive emotions that affect daily life in a negative manner. These emotions are often identified as reflecting sadness, hopelessness, discouragement, being down in the dumps, inadequacy, decreased effectiveness, feelings of guilt, and social withdrawal. The number of reported symptoms along with the amount of time they have been experienced combines to provide the indicators for type of depressive disorder.

The chronic nature of caregiving stress, when added to the unpredictable and uncontrollable aspect of caregiving, contributes to the heightened risk of depressive disorders for caregivers. Research consistently finds that when caregivers are compared to noncaregiving controls, they report higher levels of depressive symptoms. This risk is further intensified for women. Although the reporting of symptoms associated with depression is a long way from an actual clinical diagnosis of depressive disorder, the potential impact of caregiver's mental health needs careful consideration.

Literature Review Summary

The literature pertaining to the stressors and strains of caregiving to a dependent elder indicates that these caregivers are at risk for negative consequences as a result of their caregiving role. Caregivers to dependent elders, generally suffer from poorer mental health when compared to noncaregiving controls. For women, especially adult daughters who care for a dependent parent, caregiving seems to exact a cost to well-being. The role of caregiver infers certain responsibilities and expectations that contribute to the stressful nature of caregiving. It is the associated stress of caregiving that has the potential to contribute to psychological distress.

Caregiving to dependent elders has been strongly associated with negative outcome. The burden and stresses that accompany the caregiving role are often seen as leading directly to detrimental outcome. It is crucial to an understanding of the effects of caregiver stress that a complex mix of many factors and influences surrounding caregiving be considered. The existence of positive effects speaks loudly to this caveat. Apparently, mediating influences between stressors and outcome account for differential effects.

The demands of caregiving can be identified as chronic stressors. Caregiving to a dependent elder involves daily tasks and responsibilities. These daily demands have both actual and perceived aspects. How a person ultimately responds to the stress will be greatly influenced by the perception of the demands. In this respect it is apparent that stress response is not a direct action-reaction type of process. The stress response is dependent not only on the actual nature of the stress, or situation, but also on a more subjective nature, one's perception or evaluation. Cognitive appraisal as a process of

evaluation will influence stress response by identifying the stressor and its meaning. Perceiving the demand as a threat or a challenge will affect whether the outcome is positive or negative.

The process of cognitive appraisal also includes the factors of commitment and belief. Belief influences the perceived reality and expectations for a situation. Commitment influences the subjective meaningfulness of a situation. These two factors will contribute to the interpretation of threat or challenge. The mediating processes of belief and commitment reflect the level of perceived control and satisfaction within the caregiver role. These psychosocial factors are important mediators between the situation specific stressors of caregiving to dependent elders and the possibility of a depressive disorder.

Depression is a possible affective response to the demands of caregiving stress. As a mood disorder, depression affects well-being negatively and may influence daily life and functioning. The daily demands of caregiving to a dependent elder, beliefs, commitments, and perceptions of threat or challenge work together to influence the risk of experiencing a depressive disorder. When these factors are combined with the often unpredictable and uncontrollable nature of caregiving, the risk of depression to women caregivers is compounded (Avison & Turner, 1988; Chiriboga et al., 1990; Dura et al., 1990; Lawton et al., 1991; Tennstedt et al., 1992; Wallhagen, 1992; Wallhagen & Kagan, 1993). Along with the assumption of inherent risk, it is also necessary to acknowledge that outcome is not easily predicted. The stress process is mediated by psychosocial factors that have the potential to contribute to differential responses.

Purpose of Study

This study will investigate the role of perceived levels of control and caregiver role satisfaction, as mediating influences, on the stress response specific to adult daughters who give care to their dependent elderly mothers. By identifying the role of these psychosocial mediators and assessing their importance, it is hoped that this study will add to the understanding of caregiver stress response. In prior research, caregiver stress has been investigated as either a direct path between stress and outcome or as being mediated by social support or personal coping skills. This study adopts a model that reflects the importance of cognitive appraisal in determining the outcome from chronic stress (see Chapter 1, Figure 1). Cognitive appraisal is reflected in the choices of perceived level of control and caregiver role satisfaction as psychosocial mediators.

Figure 1 graphically illustrates the model. Specific stressors chosen are level of dependence of care recipient, whether the dependent mother lives with her daughter, level of conflict within the caregiver's marital relationship, employment status of the caregiver, and available income of the caregiver. Each of these potential stressors has been documented as being significant contributors to stress outcome. The relative importance of these stressors is assumed to be influenced by perceptions of situation-specific control and caregiver role satisfaction. Perceived control and caregiver role satisfaction mediate the potential effects of stress and subsequent outcome of self-reported depression.

Research Questions and Hypotheses

The central research question is: In adult daughters' who provide care to their dependent elderly mothers, is self-reported depression, resulting from caregiving stress, mediated by psychosocial resources (e.g., levels of situation-specific perceived control and caregiver role satisfaction)?

Figure 2 graphically represents the hypotheses. The hypotheses are:

1. Mild to moderate levels of self-reported depression will be found when caregiving is stressful and demanding (reflected by higher level of dependence, coresidence, reports of marital conflict, full-time employment, and lower income) and when the adult daughter reports relatively high levels of situation-specific perceived control and caregiver role satisfaction.
2. The highest self-reported depression levels will be found when caregiving is stressful and demanding (reflected by higher level of dependence, coresidence, reports of marital conflict, full-time employment, and lower income) and when the adult daughter reports relatively low levels of situation-specific perceived control and caregiver role satisfaction.
3. Mild to moderate levels of self-reported depression will be found when caregiving is not stressful and demanding (reflected by lower level of dependence, no coresidence, no marital conflict, no employment, and higher income) and when the adult daughter reports relatively low levels of situation specific perceived control and caregiver role satisfaction.
4. The lowest self-reported depression levels will be found when caregiving is not stressful and demanding (reflected by lower level of dependence, no coresidence, no marital

conflict, no employment, and higher income) and when the adult daughter reports relatively high levels of situation specific perceived control and caregiver role satisfaction.

These four hypotheses stress the importance of cognitive appraisal in mediating the impact from the demands of caregiving.

		Caregiving Stress	
		Low	High
Psychosocial Resources: Situational Control & Caregiving Satisfaction	Low	Mild to Moderate Depression (Hypothesis 3)	Highest Depression (Hypothesis 2)
	High	Lowest Depression (Hypothesis 4)	Mild to Moderate Depression (Hypothesis 1)

Figure 2. Graphic representation of hypotheses.

CHAPTER 3

METHODOLOGY

This study examined the relationship between potential stressors, psychosocial mediators, and depression within the context of adult daughters' caregiving to elderly mothers. The conceptual model is situation specific; the research examined the stress process in direct relation to the caregiving environment. Potential stressors are the level of dependence of the mother, the level of possible conflict within the daughter's marriage, the employment status of the daughter, the living arrangement of the mother, and the daughter's available income. Psychosocial mediators are the level of perceived control over the caregiving situation and level of satisfaction with the role of caregiver. The possible outcome of caregiver stress is self-reported depression (see Chapter 1, Figure 1).

The body of Chapter 3 is divided into three sections. The first section includes discussion concerning research design. The design section contains the sample description and specifics concerning data collection. The second section details the measures. Measures are discussed according to their classification as independent and dependent. Section three is the data analysis.

Research Design

Sample

The sample consists of caregiving adult daughters who volunteered for a longitudinal study concerning mother-daughter relationships in adulthood (Walker, 1986). This project was supported by a grant from the National Institute on Aging, funds from the Department of Human Development and Family Sciences at Oregon State University, and NIH Biomedical Research Support Grant from the Oregon State University Research Council. Data were collected in four waves beginning in 1986. Data from the third wave, collected in 1988-1989, was investigated. This wave of data collection included the measure of self-reported depression and measures for perceived control necessary for this study.

Mother-daughter pairs for this study were recruited from the Willamette Valley in Western Oregon (Walker, 1986). Volunteers were solicited through newspaper articles concerning a study on the relationships between adult daughters and their mothers. These articles appeared in local newspapers throughout the Willamette Valley that included both urban and rural areas. The original sample consisted of 222 mother-daughter pairs, with a caregiving group of 172 pairs and 50 control pairs. Adult daughters were identified as primary caregivers when they assisted their mothers with at least one direct service. Mothers were unmarried, lived within 45 miles of their daughters, experienced no cognitive impairment, and were age 65 or older.

The third wave of data consists of 171 mother-daughter pairs in the caregiving group and 48 pairs in the control group. The data from this wave were collected in 1988-

1989. Daughters who indicated they were currently married, regardless of how many times married, or cohabiting were included in the sample. The sample size is 75. Only married/cohabiting daughters were selected for the proposed research. Marital conflict has been identified as an important stressor that has the potential to create greater demand for adult women who give care (Brody et al., 1992; Brody et al., 1995; Brubaker, 1990; Stephens & Franks, 1995). In addition, earlier research findings indicate that caregiving daughters' spousal relationships play significant roles in determining whether the daughters experience conflict (Walker et al. 1993).

Demographic Characteristics of Sample

Table 1 represents demographic characteristics of the subsample of married daughters from Wave 3 of the original data set. The majority of daughters are between age 50 and 59 (38%), educated beyond high school (69%), rate themselves as pretty healthy (53%), describe their mothers' health as good or excellent (60%), and are White (100%).

Table 2 represents demographic characteristics of the daughters' mothers. The largest percentage of mothers are between the ages of 80 and 89 (47%). Thirty-two percent are educated beyond high school with 41% that received education only up to the eleventh grade. The mothers have an average annual income of \$12,807. Fifty percent indicated annual incomes of between \$6,000 and \$9,999.

Table 3 represents the financial characteristics of the subsample of married daughters from Wave 3 of the original data set. The daughters have an average annual

income of \$39,800. A majority of the daughters have no financially dependent children (53%) and describe their financial circumstances as not very well off (48%).

Table 1

Selected Demographic Characteristics of Married Daughters (n=75)

Demographic Variables	<u>M</u>	<u>SD</u>	%
Age in Years	52.27	10.14	
31 to 39			16
40 to 49			19
50 to 59			38
60 to 69			24
70 to 72			3
Daughter's Health	4.31	.61	
Severely ill (1)			0
Fairly ill (2)			0
Not too healthy (3)			8
Pretty healthy (4)			53
Very healthy (5)			39

Table 1, continued

Demographic Variables	<u>M</u>	<u>SD</u>	%
Years of Education	14.21	2.28	
Below high school			5
High school			26
1 - 4 yrs beyond high school			57
5+ yrs beyond high school			39

Table 2

Demographic Characteristics of Mothers (n=75)

Demographic Variables	<u>M</u>	<u>SD</u>	%
Age in Years	83.32	8.69	
66 to 69			9
70 to 77			19
80 to 89			47
90 to 98			25
Years of Education	11.54	2.97	
To 8th grade			17
9th to 11th grade			24
12th grade			27
1 - 4 yrs beyond high school			30
5+ yrs beyond high school			2

Table 2, continued

Demographic Variables	<u>M</u>	<u>SD</u>	%
Mothers' Income in Actual Dollars	12,807	15,849.11	
Below 6,000			13
6,000 to 9,999			50
10,000 to 15,000			24
16,860 to 25,000			8
over 60,000			5
Daughter's Perception of Health of Mother	2.64	1.05	
Poor (1)			19
Fair (2)			21
Good (3)			36
Excellent (4)			24

Table 3

Financial Characteristics of Married Daughters (n=75)

Financial Characteristics	<u>M</u>	<u>SD</u>	%
Perception of Financial Adequacy	3.55	.74	
Very well off (1)			1
Pretty well off (2)			4
Just ok (3)			40
Not very well off (4)			48
Not at all well off (5)			7
Number of Financially Dependent Children	.85	1.09	
0			53
1			22
2			15
3			7
4			3
Income in Actual Dollars	39,800	19,794.	
Below 15,000			6
16,500 - 20,999			6
21,000 - 35,999			36
36,000 - 50,000			34
55,000 - 75,000			14
Above 90,000			4

Data Collection

Data for this study were collected in 1988-1989 as the third wave of a larger study. The purpose of the larger longitudinal parent caring and mother-daughter relationship project was to examine mother-adult daughter relationships in mid to late life and caregiving within this relationship (Walker, 1986). Data collection consisted of separate face-to-face interviews with mothers and their daughters. These interviews were typically conducted in the home. Both participants were paid a small amount of money at the time of the interview. Interviews lasted between one and two and a-half hours.

Interviews consisted of structured questions, paper-and-pencil measures, and open-ended questions. Daughters were asked questions pertaining to the tasks and activities associated with caregiving, their feelings about the caregiving situation, their relationship with mother, future care needs of mother, how mother reciprocates, health of mother, role satisfaction, amount of social support, potential conflict, the limits of care, how competent mother is regarding decision making, costs and benefits of caregiving, other relationships, level of perceived control, self-reported depression, and numerous demographic characteristics.

Third wave face-to-face interview data are the basis for this study. Interviews during this wave of data collection included the Center for Epidemiologic Studies-Depression Scale (CES-D) as a measure of self-reported depressive symptoms and a control scale as a measure of situation specific perceived control. These two variables are important to the model. The CES-D serves as the outcome or dependent variable and perceived control acts as an important psychosocial mediator between caregiving stress and outcome.

Measures

Independent Variables

The conceptual model for this study is situation-specific to adult daughters' caregiving to their dependent mothers. The model incorporates five potential stressors and two psychosocial mediators as independent variables. The potential stressors are level of dependence of mother, whether mother lives with daughter (coresidence), existence of conflict within daughters' marital relationship, employment status of daughter, and available income of daughter. Psychosocial mediators are situation-specific perceived control in caregiving and caregiver role satisfaction.

Level of Dependence

IADL Dependence. Mother's level of dependence was measured by daughters' report of extent of dependence. Caregiving tasks and activities include instrumental activities of daily living (IADLs) and activities of daily living (ADLs) depending on nature of activity or task. The data set included six categories of IADLs; shopping/errands, indoor maintenance, financial management, food preparation, outdoor maintenance, and bureaucratic mediation. Each category is scored as to the extent of dependence. Within each of the six categories, there were several specific tasks listed. In the category of shopping/errands tasks included whether the daughter grocery shopped, ran various errands such as to the bank or to the cleaners, bought clothes, household supplies, made an expensive purchase such as a TV, and drove mother somewhere. Indoor

maintenance tasks included making beds, general house cleaning, laundry chores, decorating or arranging furnishings, and repairs. Included in financial management tasks were paying bills, writing checks, and budgeting responsibilities such as planning and reviewing expenses. Food preparation and clean-up tasks included making meals, doing dishes, and baking or canning for mother. Outdoor maintenance tasks included gardening, car repair and upkeep, grounds maintenance, and making home improvements such as roofing and storm windows. Tasks that comprised bureaucratic mediation included obtaining information for mother, making applications, arranging for services, filling out forms, and communicating with doctors for her.

Daughters were asked to rate the extent of dependence by indicating whether mothers needed no help, minimal help (with half or less than half of the tasks in the category), extensive help (with more than half of the tasks), and total help. For each of the six categories scoring reflected 1 for no help, 2 for minimal help, 3 for extensive help, and 4 for total help. IADL level of dependence was determined by a composite score combining scores for the six categories. Adjustment of the outdoor maintenance item was necessary for those daughters reporting 5 (not applicable). This score was changed to 1; indicating no help in this area. A Cronbach's alpha reliability of .72 was computed for this sample of married daughters on the IADL composite score. Total scores for IADL dependence ranged from 7 to 24.

ADL Dependence. There was a single category for ADL assistance -- personal care. Tasks that comprised personal care included feeding mother, helping her with medication, dressing or changing her, helping with bathing, combing her hair and helping

with cosmetics, helping her use the toilet or bed pan, and changing diapers. Other tasks also included were helping mother exercise, helping her in and out of bed, assisting walking, helping with stairs, and helping in and out of chairs. Again, daughters were asked to rate the extent of ADL dependence by indicating whether mothers needed no help, minimal help (with half or less than half of the tasks in the category), extensive help (with more than half of the tasks), and total help. Scoring reflected 1 for no help, 2 for minimal help, 3 for extensive help, and 4 for total help. Scores for ADL dependence ranged from 1 to 4.

Coresidence

Mothers' living situation was determined by asking the daughters whether or not they lived with their mothers, alone, or with other relatives. Scoring was recoded to 0 for other or alone and 1 to living with mother.

Marital Conflict

The level of possible marital conflict was measured in respect to daughters' responses to the following question:

“In your contact with your husband/partner in the past year, how much conflict would you say there has been?”

Responses were coded as 1 for none, 2 a little, 3 a moderate amount, and 4 a great deal.

Employment

Employment status of daughters was determined by responses asking for daughter's work time outside the home. Answers ranged from 1 to 3, with 1 being full-time employment, 2 part-time employment, and 3 being not employed outside the home. Part-time employment reflected 30 hours or less of paid work outside the home.

Income

Income available to daughters was reported with daughters' response to the following question:

“What was your approximate family income last year?”

Income was categorized into the following categories: Below \$15,000; \$16,500 to \$20,999; \$21,000 to \$35,999; \$36,000 to \$50,000; \$55,000 to \$75,000; and above \$90,000. The categories are coded 1, 2, 3, 4, 5, and 6 respectively.

Caregiver Role Satisfaction

Caregiver role satisfaction was measured with a paper-and-pencil measure given to the daughters during their structured face-to-face interview. This measure is a domain satisfaction scale that consists of 10 semantic differential pairs (see Appendix A for scale). This scale was developed by Campbell, Converse and Rodgers (1976) as a way of examining the meaning of concepts. The use of opposite adjectives provides qualitative detail to the way respondents explain and view their lives. In the original development of the measure, Campbell et al., reported a Cronbach's alpha reliability at .89. Walker, Acock, Bowman and Li (1996) report that over the four years of data collection for this

sample, reliabilities ranged from .91 to .94. For this sample of married daughters in Wave 3, the Cronbach alpha is .92.

Scoring for caregiver role satisfaction is based on a composite score reflecting responses to the 10 semantic differential pairs. Possible scores ranked from 1 to 7 for each pair. High caregiver role satisfaction was reflected by a higher score with the highest possible score of 70.

Perceived Control

Perceived control was measured by a three-item scale adapted from Affleck, Tennen, Pfeiffer, & Fifield (1987). The adapted control scale incorporates three questions about control over the caregiving situation (see Appendix B for scale). Scoring of the scale was reversed so that the higher the score, the more control felt. Scoring for each question ranged from 0 for no control, 1 a little control, 2 some control, 3 a great deal of control, to 4 total control. Scores on the control scale range from 0 to 12.

For the entire sample of daughters from Wave 3, the control items loaded strongly on the first principal component and were clearly distinct from other factors. All loadings on the first component were .50 and above; the scale had a Cronbach's alpha of .55 which could be described as low to moderate (C. Pratt, personal communication, August 3, 1995). In the current study of married/cohabiting daughters from Wave 3, the three control items again loaded strongly on the first principal component and were clearly distinct from the other factors at .54 and above. The Cronbach's alpha for married daughters was estimated to be .53. Although this reported reliability is low to moderate, it is consistent with the entire sample of daughters from Wave 3.

Dependent Variable

The Center for Epidemiologic Studies-Depression Scale (CES-D) was chosen as the indicator of depression for the parent caring and mother-daughter relationship project (Walker, 1986). The CES-D scale (see Appendix C for scale) was developed to be an initial screening tool to assess depression within the general population (Devins & Orme, 1985). The CES-D is limited in assessment to the one-week period that precedes its completion. The CES-D indexes cognitive, affective, and behavioral depressive symptoms and the frequency/duration of these symptoms. It is a self-report measure. Internal consistency reliabilities, as measured by Cronbach's coefficient alpha, of .84, .85, and .90 have been reported. In the current study a Cronbach's alpha of .87 was obtained. The validity of the CES-D as a measure of depressive symptomology has been demonstrated reasonably well in various test scores. Most notably, findings from tests exploring the association of the CES-D to other related variables indicate support for its construct validity (Devins & Orme).

The CES-D is composed of 20 questions. Each question reflects a symptom and is weighted by the frequency with which the respondent reports it. Responses are scored from 0 (indicating never) to 3 (indicating most or all the time). These responses are then summed across the 20 items to yield a single score. Generally, a total score over 16 is the cut-off indicating depressive symptomology. Scores from 16 to 20.5 appear to indicate mild depression, scoring from 21 to 30.5 moderate depression, and scores higher than 31 indicate severe depression (Devins & Orme, 1985). Scoring on the CES-D was recoded to

reflect the 0 to 3 score and four items (i.e., 5, 8, 12, and 16) that reflected positive attributions were reversed.

According to Devins and Orme (1985) the CES-D scale is a valuable tool for the assessment of depressive symptomology and emotional distress. The CES-D has been used frequently to investigate the relationship between present depressive symptoms and other variables such as stressful life events. It is easily administered and is useful across a wide range of adult populations. Although the scale's focus is not limited to depressive symptomology, and this could indicate some concern for validity, Devins and Orme contend that the usefulness of the CES-D is maintained. They assert that it works best as an index of the general construct of emotional distress.

Data Analysis

Data were analyzed using SAS as the statistical computer program. The method was path analysis. Path analysis is a useful method for illustrating the relationship among all the variables within a model simultaneously (Bailey, 1987) and provides a description of the pattern of relationships among the chosen set of variables (Darlington, 1990). This method is actually a series of regression equations that allows for the analysis of not only direct effects, but also indirect effects through other variables (Pedhazur, 1973). A regression equation is run for each endogenous variable within the model. The following models were run:

1. Control = IADLs -- ADLs -- Coresidency -- Marital Conflict -- Employment -- Income

2. Caregiver Satisfaction = Control -- IADLs -- ADLs -- Coresidency -- Marital Conflict -- Employment -- Income

3. Depression = Control -- Caregiver Satisfaction -- IADLs -- ADLs -- Coresidency -- Marital Conflict -- Employment -- Income

Preceding the path analysis, zero order (Pearson) correlations were conducted to determine whether multicollinearity existed between any two of the independent variables. Multicollinearity reflects high intercorrelations among independent variables and raises questions regarding the reliability of regression coefficients (Hickey, 1986). Considering the small sample size of 75, it is important to determine whether multicollinearity exists. Dropping any predictor variable from the model that is closely related to another variable serves to increase the power to detect effects and help to justify the small sample size (Kraemer & Thiemann, 1987).

Hickey (1986) advises that from the matrix of intercorrelations any correlation over .8 be dropped from the model. Although there is nothing magical about this figure it is a general practice and advisable to follow.

Data that were missing from items were substituted with means calculated from the married daughters of Wave 3. For caregiving role satisfaction only two daughters did not complete the questionnaire, accounting for approximately 3% of the sample. Four percent of the sample (three for each item) failed to complete information for IADLs and ADLs. Reported income had the most missing data, with 10 daughters not reporting, accounting for 13% of the sample. And lastly, daughters answering “not applicable” on control scale items accounted for approximately 6% of the sample (five on one item and

four on each of the remaining items). The level for determining statistical significance was set at $p < .05$ for all appropriate analyses.

Finally, to test the four specific hypotheses hypothetical cases were created and the depression scores calculated using the unstandardized partial regression coefficients.

CHAPTER 4

RESULTS

This study examined the influence of caregiver role satisfaction and perceived levels of situation-specific caregiver control on the stress response of adult daughters who give care to their elderly mothers. As mediating influences, caregiver role satisfaction and perceived situation-specific control affect the relationship between caregiving stressors and the outcome of depression. The stressors utilized for this study are coresidence of mother and daughter, level of dependency (IADLs and ADLs), marital conflict, available income, and employment status.

The body of Chapter 4 is divided into three sections. The first section provides a brief overview of the study sample. The second section provides results from the path analyses, section three addresses the hypotheses.

Study Sample

The study sample was obtained from Wave 3 of a larger longitudinal study investigating mother-daughter relationships in adulthood (Walker, 1986). Out of a total Wave 3 sample of 171, a sub-sample of 75 married/cohabiting daughters were selected for this study. The mean age of daughters is 52 with a mean education level of grade 14. Fifty-three percent of the daughters rate their health as “pretty healthy,” with the same percentage reporting no financially dependent children. All of the daughters in this sub-

sample are Caucasian and 48% describe their financial circumstances as “not very well off” despite of a mean income of \$39,800.

Path Analysis

The path analysis indicates that the total model (model 3) explains 28% of the variance in depression for married, caregiving daughters ($p < .01$, $F(8, 66) = 3.231$). A detailed accounting of the analyses follows. The means, standard deviations, and ranges of scores for study variables are presented in Table 4. The study variables of stressors, mediators, and outcome of depression will be discussed separately.

Stressor Variables

The study variables of IADLs, ADLs, coresidence, employment status, available income, and marital conflict were identified as stressors for this sample of married/cohabiting daughters who give care to their elderly mothers. Daughters mean rating of mother’s dependence for IADLs is 16.06 ($SD = 4.64$). These data indicate that 38% of the sample rate the level of dependence on IADLs (instrumental activities such as shopping and food preparation) as extensive, meaning that the daughters help with more than half of these activities.

Extent of dependence based on ADLs (personal care items such as bathing and feeding) indicates that these mothers are seen as needing assistance in less than half of the activities associated with this type of dependence. Only 24% of the sample rated

dependence on ADLs as extensive. Although the daughters are engaging in several IADL activities, the extent of dependence based on ADLs is relatively lower.

Most daughters do not coreside with their mothers (87%) and most (59%) are employed either part or full-time. The mean income was 3.63 (SD = 1.75) which reflects the category between \$36,000 and \$50,000. The actual mean for available income was \$38,900. Only 8% of the sample reported available income below \$21,000. Level of marital conflict was low (M = 1.89 , SD = .73). A response of one indicated no conflict and two indicated “a little” conflict. Ten percent of the married/cohabiting daughters reported conflict as “a moderate amount” to “a great deal.”

Mediating Variables

Caregiver role satisfaction was reported as moderate to high (M = 51.73, SD = 10.67) with 44% reporting scores below the mean. The highest score possible for caregiver role satisfaction is 70, indicating complete satisfaction with the caregiving role. The lowest observed score was 22. Scores on perceived control within the caregiver situation (M = 6.82, SD = 2.71) indicate that on average daughters feel they have moderate to good control. A high score on the control scale reflects more control, with a low score reflecting less control. Out of a possible 12, a score of 6 to 7 would indicate daughters reported, on the average, “some control.” Thirty-two percent of the sample report little to no control.

Outcome Variable

Depression, as measured by the CES-D, for the subsample of married/cohabiting daughters suggests that, as a group, there is no depressive symptomology. Mean score for this sample is 9.31 (SD = 8.00) indicating no depressive symptomology. According to CES-D scoring standards a score below 16 indicates that no symptoms of depression are evident. Approximately 6.5% of the sample reported moderate to severe depressive symptomology reflected by scores over 21.

Table 4

Means and Standard Deviations for Study Variables

Variable	<u>M</u>	<u>SD</u>	Range
IADLs	16.06	4.64	7 - 24
ADLs	1.78	.99	1 - 4
Marital Conflict	1.89	.73	1 - 4
Available Income	3.63	1.75	1 - 6
Caregiver Role Satisfaction	51.73	10.67	22 - 70
Perceived Control	6.82	2.71	0 - 12
Depression	9.31	8.00	0 - 37

Table 5 presents all correlations between study variables. Five significant correlations exist including the one between IADLs and ADLs which is significant at .718 ($p < .001$). Consistent with theory and practice, as the number of IADLs rises it can be

expected to see rises in ADLs reflecting growing dependence. Caregiver role satisfaction and marital conflict exhibit a significant negative relationship at $-.344$ ($p < .01$). As the level of marital conflict rises, caregiver role satisfaction drops.

Perceived control is positively associated with employment status at $.237$ ($p < .05$). A higher score on the control scale reflects greater control with a higher score on employment status indicating unemployment. Not being employed outside of the home is significantly related to feelings of greater control over the caregiving situation. Depression is significantly associated with both marital conflict and caregiver satisfaction. Marital conflict and depression are positively related at $.370$ ($p < .001$). Rises in marital conflict being associated with rises in depressive symptomology. Caregiver role satisfaction and depressive symptomology are negatively correlated at $-.328$ ($p < .01$). As satisfaction rises reports of depressive symptomology drops.

Table 5

Correlation Matrix for Study Variables

	1	2	3	4	5	6	7	8	9
1. IADLs	-								
2. ADLs	.718***	-							
3. Coresidence	.156	.487	-						
4. Marital Conflict	-.058	-.037	.112	-					
5. Employment Status	-.007	-.018	-.123	.076	-				
6. Available Income	-.159	-.045	.027	-.138	-.029	-			
7. Caregiver Role Satisfaction	-.204	-.131	.088	-.344**	-.081	.158	-		
8. Perceived Control	.080	.008	.128	.093	.237*	.189	.126	-	
9. Depression	.029	.109	.142	.370***	-.132	-.039	-.328**	-.188	-

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

Figure 3 presents the results of the path analysis. All coefficients are standardized (i.e., beta coefficients). Table 6 provides parameter estimates for the relationships depicted in Figure 3.

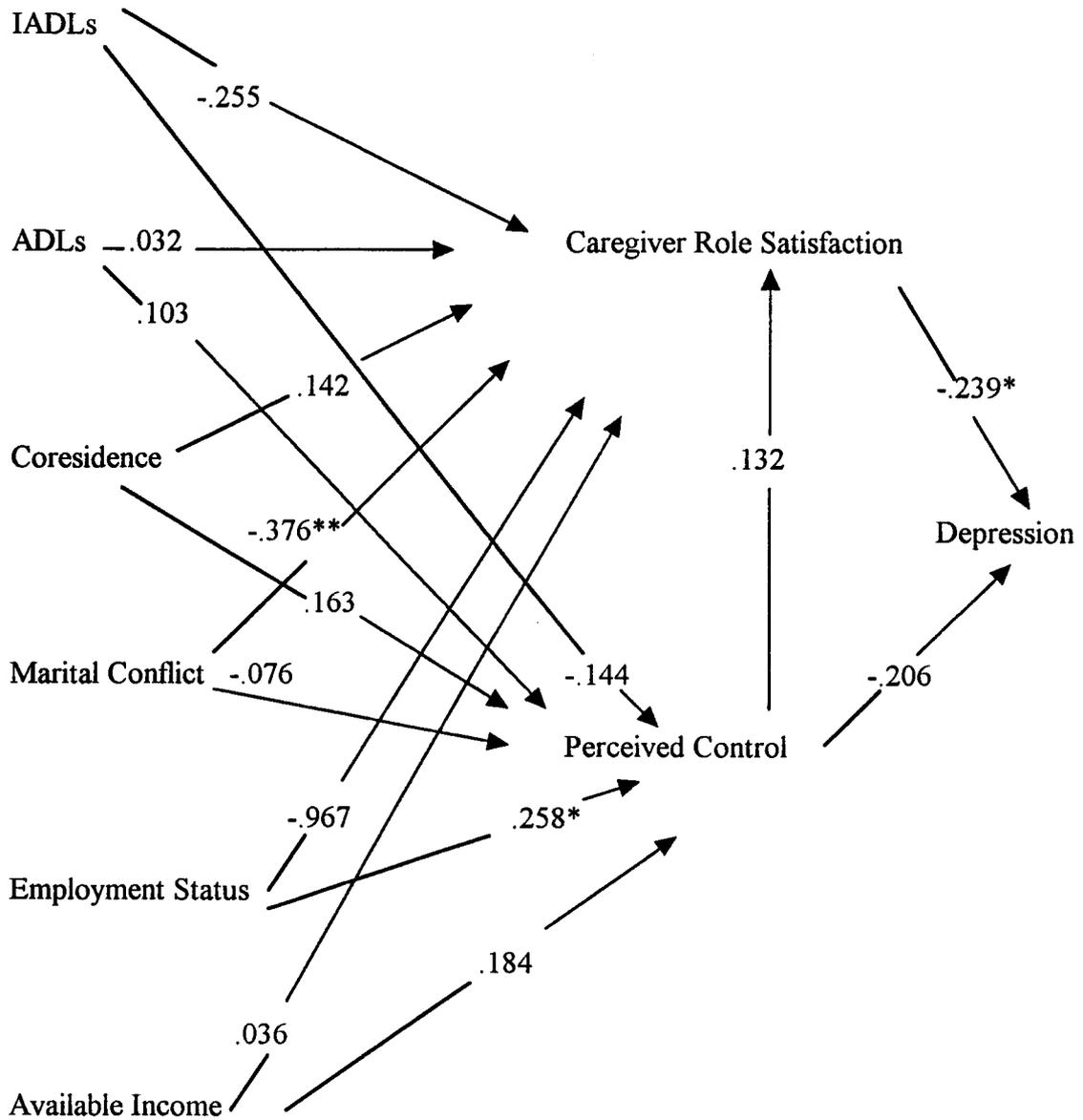


Figure 3. Results of path analysis. * $p < .05$. ** $p < .01$.

On the one hand, results of the path analysis indicated no significant paths from IADLs, ADLs, coresidence, or available income to either caregiver role satisfaction or perceived control. This indicates that as potential stressors the effect of these variables is

minimal for this sample of married/cohabiting adult daughters who give care to their mothers.

On the other hand, marital conflict significantly influences levels of caregiver satisfaction ($\beta = -.376, p < .01$). As levels of marital conflict rise, caregiver role satisfaction drops. Employment status has a positive effect on perceived control ($\beta = .258, p < .05$). Those daughters who do not work outside of the home reported higher levels of control over the caregiving situation than those employed full or part-time. Caregiver role satisfaction has a significant ($\beta = -.239, p < .05$) direct effect on depression. As caregiver role satisfaction rises depressive symptomology drops.

The path analysis for model 3 (the total model) indicated that 28% of the variance in depression is explained by the independent variables for married, cohabiting daughters ($p < .01, F 8, 66 = 3.231$). This estimate of how strongly the variables are related is low, but significant. Model two explained twenty-two percent of the variance in caregiver role satisfaction ($p < .05, F 7, 67 = 2.661$). Again, this amount is low, but significant. The first model of the path analysis only accounted for 13% of the variance in perceived situational control due to the stressor variables and was not significant ($p < .12, F 6, 68 = 1.766$).

Table 6

Parameter Estimates for Relationships Between Variables

	<u>Model 1</u>			<u>Model 2</u>			<u>Model 3</u>		
	Control			Caregiving Role Satisfaction			Depression		
	b	β	t	b	β	t	b	β	t
IADL	-.084	-.144	-.9	-.587	-.255	-1.6	-.344	-.194	-1.2
ADL	.283	.103	.6	.348	.032	.2	1.77	.219	1.4
Coresidence	1.29	.163	1.4	4.40	.142	1.2	3.78	.162	1.5
Marital Conflict	.283	.076	.7	-5.50	-.376**	-3.4	3.31	.301*	2.6
Employment Status	.813	.258*	2.3	-.827	-.067	-.6	-.947	-.102	-.9
Available Income	.465	.184	1.6	.360	.036	.3	.380	.051	.5
Control				.518	.132	1.3	-.609	-.206	-1.8
Caregiving Role Satisfaction							-.179	-.239*	-2.0
R ²		.28**			.22*			.13	

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

Table 7 provides a decomposition of effects of the variables. It shows direct, indirect, spurious, unanalyzable, and total effects for each parameter. A direct effect indicates a variable's direct influence on another variable. An indirect effect indicates an

intervening variable influences the relationship between two variables. Unanalyzed effects are due to correlated causes and indicate no direction while spurious effects are due to common causes such as a shared variable. The total effect is the sum of direct and indirect effects (Darlington, 1990; Pedhazur, 1973). See Figure 4 for explanation of relationship.

Table 7

Decomposition of Relationship Between Variables

Relationship	Direct	Indirect	Spurious	Unanalyzable	Total Effect
r17 = -.204	-.255	-.019		.068	-.274
r18 = .080	-.144			.005	-.144
r27 = -.131	.032	.014		-.085	.046
r28 = .008	.103			-.034	.103
r37 = .088	.142	.021		.054	.163
r38 = .128	.163			-.007	.163
r47 = -.344	-.376**	-.010		-.048	-.386
r48 = .093	-.076			.017	-.076
r57 = -.081	-.967	.034		-.044	-.933
r58 = .237	.258*			-.032	.258
r67 = .158	.036	.024		.123	.06
r68 = .189	.184			.025	.184
r79 = -.328	-.239*		-.027		-.239
r87 = .126	.132		-.150		.132
r89 = -.188	-.206	-.031			-.237

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

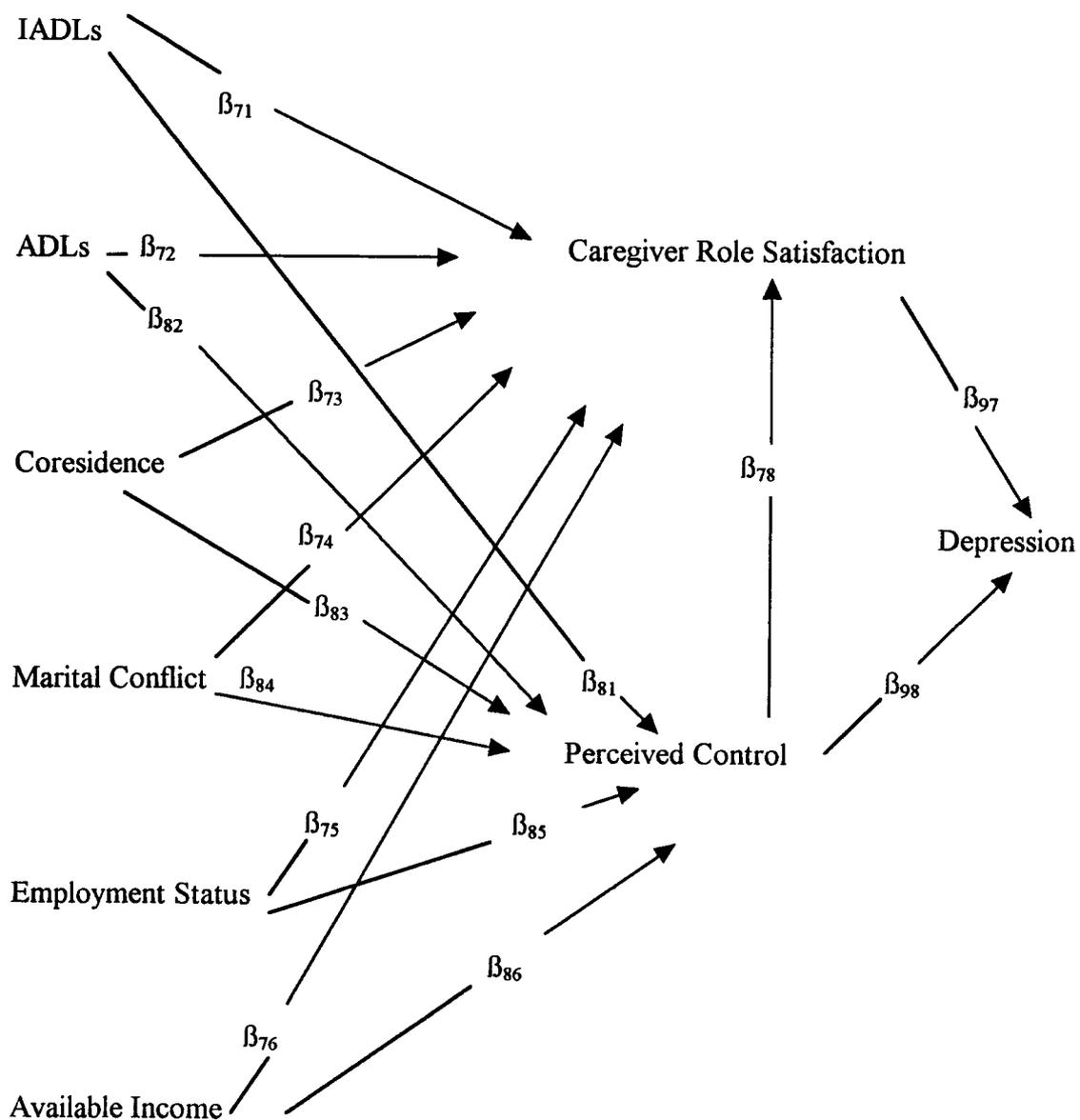


Figure 4. Explanation of relationship/parameters.

In adult daughter's who provide care to their dependent elderly mothers, self-reported depression resulting from caregiving stress was mediated by the psychosocial resource of caregiving role satisfaction. Situation-specific perceived control appeared to have no mediating effect between stress and self-reported depression. The adopted model

for this study focused on the combined mediating effects of these two psychosocial resources (e.g. levels of situation-specific control and caregiver role satisfaction). There was no evidence for this combined effect.

Hypotheses

To adequately test the hypotheses, values were chosen to represent respective hypotheses (see Appendix D for values). The amounts chosen included high and low levels of caregiving stress and high and low levels of caregiver role satisfaction and perceived situational control. As an example, indicators of stressful and demanding caregiving are higher levels of dependence, coresidence, reports of marital conflict, full-time employment, and lower income. These values were then plugged into a regression equation utilizing the unstandardized partial regression coefficients generated from the statistical analyses. Scenarios were generated for a hypothetical daughter using these values that resulted in a score on the CES-D. See Figure 5 for graphic representation of these results.

Hypothesis One

Hypothesis number one predicted that when caregiving is stressful and demanding (reflected by higher levels of IADLs and ADLs, coresidence, full-time employment, lower income, and reports of marital conflict) and the adult daughter reported relatively high levels of situation-specific perceived control and caregiver role satisfaction, then self-reported depression levels would be mild to moderate. The CES-D score that was

generated for the hypothetical daughter who fit this scenario was 15.45. This score is just below the cut-off of 16, indicating depressive symptomology. A score from 16 to 20.5 indicates mild depression.

Looking strictly at numbers, a CES-D score of 15.45 indicates no depressive symptomology and would require rejection of this hypothesis. It could be argued, from a practical standpoint, that this score is so close to the cut-off score of 16 that it does reflect mild depression. In this case, some support for this hypothesis is indicated. The practical significance of this CES-D score of 15.45 provides modest support for this hypothesis.

Hypothesis Two

Hypothesis two predicted that when caregiving is stressful and demanding (see hypothesis one) and the daughter reported relatively low levels of situation-specific perceived control and caregiver roles satisfaction, then reported depression levels would be highest. The generated scenario resulted in a CES-D score of 25.99 for the hypothetical daughter. This score falls into the range of moderate depression, 21 to 30.5. Based on this score hypothesis two was supported.

Hypothesis Three

Hypothesis three predicted that when caregiving is not stressful and demanding (reflected by lower levels of dependence, no coresidence, no marital conflict, no employment, and higher income) and the adult daughter reported relatively low levels of situation-specific perceived control and caregiver role satisfaction, then self-reported

depression would be mild to moderate. For this hypothetical daughter a CES-D score of 17.45 was observed. This score reflects mild depression. Based on this indicator, hypothesis three was supported.

Hypothesis Four

Hypothesis four predicted that when caregiving is not stressful and demanding (see hypothesis three) and the adult daughter reported relatively high levels of situation-specific perceived control and caregiver role satisfaction, then self-reported depression levels would be lowest. This hypothesis was supported as evidenced by a CES-D score of 6.9 indicating no depressive symptomology.

		Caregiving Stress	
		Low	High
Psychosocial Resources Control & Caregiver Role Satisfaction	Low	Hypothesis 3: Mild to Moderate Depression Finding: 17.45/Mild Depression SUPPORTED	Hypothesis 2: Highest Depression Finding: 25.99/ Moderate Depression SUPPORTED
	High	Hypothesis 4: Lowest Depression Finding: 6.9/No Depression SUPPORTED	Hypothesis 1: Mild to Moderate Depression Finding: 15.45/Mild Depression “SOME” SUPPORT

Figure 5. Results of hypotheses testing.

CHAPTER 5

DISCUSSION

The central research question was: In adult daughter's who provide care to their dependent elderly mothers, is self-reported depression, resulting from caregiver stressors, mediated by the psychosocial resources of situation-specific perceived control and caregiver role satisfaction? This research adopted the assumption that the stress process is not a direct action-reaction process but rather a process that involves stressors, mediators, and responses. The model for this study focused on the combined mediating effects of two psychosocial resources (e.g., levels of situation-specific control and caregiver role satisfaction). Although no combined mediating effects of situation-specific perceived control and caregiver role satisfaction were found, caregiving stress was mediated by caregiving role satisfaction. As measured in this study, situation-specific perceived control appeared to have no mediating effect between stressors and self-reported depression.

The sample chosen for this investigation was married/cohabiting adult daughters who gave care to their dependent mothers (Walker, 1986). These caregiving women reported a range of dependence among the mothers; on average however, mothers' ADL dependence was minimal with IADL dependence at the higher end of minimal. Most daughters did not coreside with their mothers, were employed either part or full-time outside the home, and appeared to have adequate income. A majority reported relatively low levels of marital conflict. Levels of caregiver role satisfaction, on the average, were moderate to high and most daughters reported moderate to good control over the

caregiving situation. For most of these caregiving women depressive symptomology was nonexistent. A general perception would be that these daughters did not view their situations as exceedingly stressful.

The remaining sections of Chapter 5 will present conclusions, limitations, recommendations for future research, and implications for professionals.

Conclusions

The Model and Hypotheses

Overall, the findings of this research did not fully support the hypothesized model. No statistical evidence was found for the combined effect of the psychosocial resources of situation-specific perceived control and caregiver role satisfaction as mediators between the stressors of caregiving and the outcome of depression. However, caregiver role satisfaction was significant as a mediator between stress and depression. The finding of a significant path between caregiver role satisfaction and depression also is supported by previous research. The premise that caregiver role satisfaction is a significant factor in the cognitive appraisal of the caregiving situation and the ultimate effects of stress on well-being appears to be supported (Franks & Stephens, 1992; Lawton et al., 1989; Townsend et al., 1989).

Looking specifically at the research hypotheses, hypotheses' number two, three, and four were supported. Support for hypothesis number two indicated that when high caregiver stress is coupled with low levels of perceived control and caregiver role satisfaction self-reported depression will be at its highest. Hypothesis number three, with

low caregiving stress and low levels of perceived control and caregiver role satisfaction, was also supported. Hypothesis number four indicated that when caregiving stress is low and levels of perceived control and caregiver role satisfaction are high, then depression levels will be at their lowest. The possibility of mediating effects in hypothesis number four are difficult to infer.

Support for hypothesis number one was ambiguous. Specifically, this hypothesis stated that when caregiver stress is high and levels of psychosocial resources are also high, self-reported depression would be mild to moderate based on CES-D scoring. The obtained score (15.45) was just at the cut-off for depressive symptomology (16.00) indicating mild depression; thus, although not strongly supported, this hypothesis appears to capture the direction of the relationship between stressors, psychosocial resources, and depression.

Levels of caregiving stress have consistently been associated with outcome for caregivers (Braithwaite, 1992; Chiriboga et al., 1990; George, 1994; Jones & Peters, 1992; Miller et al., 1991; Parks & Pilisuk, 1991; Rabin et al., 1993; Shulz et al., 1990; Stoller & Pugliesi, 1989; Zarit, 1990). The literature supports the contention that women who give care to dependent elders suffer poorer mental health when compared to non-caregiving controls, especially when caregiving stress is high. These previous findings provide additional support for hypotheses' number one and four.

In contrast to what was expected, situation-specific control was not indicated as a significant mediator between caregiving stress and self-reported depression. Prior research has maintained that control is an important mediator between stress and outcome (Gatz et al., 1986; Krause, 1994; Krause et al., 1992; Lazarus & Folkman, 1984;

Wallhagen, 1993). High levels of control have consistently been associated with high levels of well-being and reduced stress (Bandura, 1977; Krause, 1991, 1994; Krause et al., 1992; Perlmutter et al., 1986; Rodin, 1990; Rowe & Kahn, 1987; Taylor & Brown, 1994; Wallhagen, 1993). In this study, however, no significant effect for control was observed. The role of perceived control in the original model is minimal ($R^2 = .28$, $p < .01$, $F_{8, 66} = 3.231$), yet dropping it weakens the overall effect ($R^2 = .25$, $p < .01$, $F_{7, 67} = 3.112$). The original model was statistically significant, although only moderately effective in explaining the variance in depression.

Other Significant Findings

Levels of marital conflict are predictive of caregiving role satisfaction and depression. This finding provides support for the contention that conflict within the marital relationship of the caregiving daughter can exacerbate the associated stress and result in a negative outcome (Brubaker, 1990; Young & Kahana, 1989). How satisfied one is with the role of caregiver appears to be partly dependent on the quality of the marital relationship. Low levels of marital conflict may indicate important social support and may provide the caregiver with a greater opportunity to feel effective.

Another significant finding was that employment status had a direct effect on perceived control. Higher levels of perceived control were associated with not being employed, while lower levels were associated with part and full-time employment outside the home. These results are consistent with Neal et al.'s (1990) finding that full-time

employment created more problems in the integration of responsibilities among caregiving, work, and other family obligations for caregivers.

In summary, the significance of marital conflict and employment as stressor variables was evident. As a stressor, marital conflict was related to both caregiving role satisfaction and depression. For the caregiving daughters in this study, marital conflict was an important predictor of how satisfied they were with their role as a caregiver and if they experienced any depressive symptomology. Employment status' effect on perceptions of control was also significant.

Limitations & Recommendations

All research has limitations. This study is no exception. The design of this study was nonexperimental. Extraneous variables could not be controlled. There are many stressors in caregiving and a variety of personal and situational variables may influence perceived control. Thus, questions may be raised regarding variables not included in this study. In addition the data for this study were cross-sectional. The possibility that levels of depression, caregiver role satisfaction, and situation-specific perceived control vary across time cannot be assessed.

The generalizability of these results is also limited. The sample was composed of only married/cohabiting daughters who were providing support to dependent, non-cognitively impaired mothers. The study sample did not include any racial minorities. The possibility of differences by marital status, mother's cognitive level, and/or ethnicity deserve consideration and further study.

Sample size is also a limitation. The ratio between sample size and number of variables was at the minimum for providing valid results. Research using a larger sample may very well have provided different results because statistical power would have been increased. Small sample size also played an important role in the selection of the procedure for handling missing data. In large samples it is often recommended that cases that have data missing on some variables be deleted from the sample (Darlington, 1990). Darlington states that imputation (that is, estimating missing scores from the available data) is not a very satisfactory method of handling missing data. Nevertheless, in this study missing data were replaced by mean scores because dropping cases would have further limited the sample size and statistical power. It is not known why certain respondents did not answer certain questions or whether the mean score on the variable of interest is a valid replacement for the missing score. For example, are the individuals who chose not to disclose available income adequately represented by the mean of the group or was their choice motivated by too much or too little available income? Further study using a much larger sample is definitely indicated.

The adequacy of the control measure also needs to be acknowledged as a limitation. The reliability of the scale in this study was low to moderate at .53. Questionable reliability necessarily raises questions about validity. Does this scale address perceptions of control within the caregiving situation or is it exploring areas that are basically uncontrollable (e.g., mother's health)? The first two questions (1. How much control would you say you have over the situations that lead your mother to need assistance from you? 2. How much control would you say you have over the long-term

situation of providing help to your mother; that is, over what will happen to her in the future?) on the control scale ask how much control is perceived regarding (1) situations that require assistance and (2) what will happen to the mother in the future. The third question, does appear to most directly address perceptions of control within the situation by asking how much control is perceived over assistance given. An exploratory analysis using only this third item as the control measure resulted in an R^2 of .33 ($p < .001$, $F(8, 66) = 4.028$). This indicates that this single item was a better indicator of situation specific perceived control. Further study into the development of a highly reliable and more valid measurement of situation-specific perceived control is indicated.

The adequacy of depressive symptomology as an outcome of caregiving stress also merits further inquiry. Undoubtedly, the CES-D is a highly reliable and valid measurement tool for assessing depression in the general population. The question lies with whether depression, as an outcome variable, is the best indicator of the effects of caregiver stress among caregivers who give care to nondemented elders. Rather than looking at depression levels, an investigation focusing on adjustment disorders or nonpathological reactions to stress may more accurately assess the effects of caregiver stress. Adjustment disorders are identified by the development of clinically significant emotional or behavioral symptoms that are a response to a specific psychosocial stressor (American Psychiatric Association, 1994). A significant difference between depression and adjustment disorder is that an adjustment disorder is in response to specific stressors and lasts no longer than six months after the stressor or its main consequences have ceased. A study focusing on this type of disorder as an outcome may provide additional insight into the effects of caregiver stress.

In summary, a larger, more diverse sample with measures that more fully and validly assess perceived control and the possible negative outcomes of caregiver stress would provide a more comprehensive investigation of the research model. A design that allows for multiple assessments of the variables of interest would also be beneficial to the understanding of caregiver stress and the factors that may mediate between stress and outcome.

Implications

Although the overall results did not fully support the proposed model, this research has some important implications for practitioners. The significance of marital conflict as a predictor of caregiving role satisfaction and role satisfaction's direct effect on outcome point to possible areas of intervention for the caregiver. As a significant source of stress for caregivers, marital conflict could be specifically addressed by professionals. Those married/cohabiting caregivers who are experiencing marital conflict may need assistance with partner relationships. At the very least caregiving support groups and other caregiving interventions should acknowledge the role of marital conflict in caregiver stress and provide appropriate referrals.

Increasing caregiving role satisfaction is also an area that merits specific intervention. Caregiving role satisfaction is a perception and perceptions can be altered as evidenced by Scarlach's (1987) intervention to change caregiving daughters' negative perceptions. A program designed to educate caregivers concerning the realities of caregiving and to allow them to set realistic expectations for themselves and the care recipient would address an important aspect of caregiver role satisfaction. For those

caregivers who are also employed outside the home or who have other pressing responsibilities, such a program could incorporate time management techniques and information regarding available support services.

Summary

The possible effects of the stress associated with being a caregiver to a dependent elderly parent will continue to be an area of interest to researchers. As more families accept the responsibility of elder care, interest in caregiver stress and the effects on families will grow. This study found that caregiver role satisfaction was a significant mediator between caregiving stress and self-reported depression. This finding adds considerable support for the assertion that caregiver role satisfaction is an important aspect of the cognitive appraisal of caregiver stress.

Caregivers' stress responses appear to reflect the complexity of the caregiving situation, caregiver's resources, and cognitive appraisals. A simplistic action-reaction model of stress appears to be outdated and not supported by this or other research. Caregiver evaluations of their situations do influence their outcome. The process of making cognitive evaluations and the factors that influence these evaluations deserve further consideration.

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APPENDICES

Appendix A

Caregiver Role Satisfaction

Here are some words and phrases which we would like you to use to describe how you feel about assisting your mother. For example, if you think caregiving is very “enjoyable,” put an x in the box right next to the word “enjoyable.” If you think it is very “miserable,” put an x in the box right next to “miserable.” If you think it is somewhere in between, put an x where you think it belongs. Put an x in one box on every line.

Enjoyable	— — — — —	Miserable
Discouraging	— — — — —	Hopeful
Full	— — — — —	Empty
Friendly	— — — — —	Lonely
Boring	— — — — —	Interesting
Useless	— — — — —	Worthwhile
Disappointing	— — — — —	Rewarding
Brings out the best in me	— — — — —	Doesn't give me much chance
Hard	— — — — —	Easy
Free	— — — — —	Tied down

Appendix B

Perceived Control

The following questions concerning perceived control were a part of the structured face-to-face interview. Answers on the first three questions were scored by noting total control, a great deal of control, some control, a little control, or no control at all. Answers on the remaining four questions were scored by reporting strongly agree, agree, don't know/not sure, disagree, strongly disagree.

“Now, I'd like to ask you a few questions about the kind of control you feel in your life.”

1. “How much control would you say you have over the situations that lead your mother to need assistance from you?”

2. “How much control would you say you have over the long-term situation of providing help to your mother; that is, over what will happen to her in the future?”

3. “How much control would you say you have over the assistance you give to your mother?”

Appendix C

CES-D

Daughter's Feelings/Behaviors in the Past Week

Tell me how often -- if at all -- you have felt this way IN THE PAST WEEK

1. I was bothered by things that don't usually bother me.
2. I didn't feel like eating.
3. I felt that I couldn't shake the blues, even with help from my friends and family.
4. I had trouble keeping my mind on what I was doing.
5. I felt I was as good as other people.
6. I felt depressed.
7. I felt everything was an effort.
8. I felt hopeful about the future.
9. I thought my life was a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.

18. I felt sad.

19. I felt people disliked me.

20. I couldn't "get going."

Appendix D

Table of Values for Hypothesis' Testing

Variable	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4
IADL	22	22	10	10
b = -.334				
ADL	3	3	2	2
b = 1.775				
Coresidence	1	1	0	0
b = 3.781				
Marital Conflict	4	4	2	2
b = 3.31				
Employment Status	1	1	3	3
b = -.947				
Available Income	1	1	5	5
b = .380				
Caregiver Role	65	30	30	65
Satisfaction				
b = -.1794				
Perceived Control	10	3	3	10
b = -.609				

Note. The intercept for the equation is 18.77. Values chosen as high or low were based on the following: IADLs, 22 reflects extensive assistance and 10 reflects very little assistance; ADLs, 3 reflects extensive assistance and 2 reflects minimal assistance; Coresidence, 1 reflects coresidence and 0 not; Marital conflict, 4 reflects a great amount of conflict and 2 little conflict; Employment status, 1 is full-time employment and 3 is unemployed outside the home; Available income, 5 reflects income between \$50,000 and \$75,000 with 1 reflecting income below \$15,000; Caregiver role satisfaction, 65 reflects high satisfaction (highest score possible is 70 indicating complete satisfaction) and 30 reflects low satisfaction; Control, 10 reflects a great deal of control and 3 very little control.