RELATIONSHIP QUALITY, COMMITMENT, AND DEPRESSION AMONG CAREGIVERS

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(ABSTRACT)

In this study I assessed a causal model between caregivers' prior relationship to care-receivers, commitment to the relationship, and depression in parental and spousal caregiving, based on social exchange and commitment theory. Data (N = 695) from the National Survey of Families and Households (NSFH) were used to test a path model examining the effects of relationship quality and commitment, as well as age, gender, income, education, health, living arrangement, emotional support, and adult children's marital status on depression. This study began the process of combining the social psychological concept of commitment and the gerontological caregiving literature.

The expected effects of commitment on depression were not statistically significant for either spousal caregiving or parental caregiving. As for spousal caregiving, caregivers' health and relationship quality were negatively associated with caregivers' depression. In parental caregiving, caregivers' education and health had negative effects on caregivers' depression.
The quality of the relationship with spouse or parent was notable for explaining commitment to the relationship. The predicted positive effect of relationship quality with parent on moral commitment was contradicted by a statistically significant finding of a negative effect. Spousal caregivers' structural commitment to marital relationship was positively affected by the quality of the relationship with spouse.
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CHAPTER I: INTRODUCTION

Scope and Context of Research Questions

Relationship functioning, including caregiving, varies according to what people think is proper and their sense of obligation to significant others (Johnson, 1982; Mancini & Benson, 1989). What causes individuals to be committed to maintaining their involvement with people even when they are confronted with conflicting expectations from their loved ones and friends? In interpersonal life, humans should be prudent when initiating, maintaining, and disengaging from their relationships (Baxter, 1985).

One issue that should be addressed is what people in long-term relationships, such as parent-child relationships and marital relationships, gain over the life course. The benefits of close relationships may be influenced by the range of incentives, such as affection and support, that facilitate continuing the relationships (Mancini & Benson, 1989). Of relevance here is the observation that within close relationships, individuals’ different levels of commitment to their relationships will make a difference in the interaction between them and whether or not the relationship might be expected to continue. Therefore, commitment focuses attention on the duration and the quality of the relationship (Kelley, 1983).

An important aspect of the relationship between aging parents and their adult children and of the marital relationship of the caregivers and the care-receivers is their enduring character. By the time a parent or a spouse becomes frail, the relationship is likely to have a long history. Kelley (1983) assumed that commitment must be understood as a causal condition for the
length of the relationship. Using analysis of commitment in the phenomenon of behavioral consistency has been agreed almost without exception by social scientists who use the construct (Johnson, 1991; Levinger, 1991; Rusbult, 1987). In this context, I examined why people provide support for their parents or spouses. Given the fact that caring for frail, elderly family members is difficult and prolonged (Blieszner & Shifflett, 1989), the desirability of parental and spousal caregiving behavior and its psychological outcome was investigated.

Numerous gerontological researchers have examined caregivers' stress, burden, strain, and coping mechanisms (Cohen & Eis dorfer, 1988; George & Gwyther, 1986; Hooker, Frazier, & Monahan, 1994; Pearlin, Mullan, Semple, & Skaff, 1990; Zarit, Todd, & Zarit, 1986). Information has not been reported that would allow for an adequate understanding of the way structural patterns interact with social norms or values (Montgomery & Hirshorn, 1991). People with different value systems will draw different assistance for the older population. One way family members overcome the hardship might result from their subjective perception of the situation they face. In other words, if they look at the situation favorably, the hardship is easier to endure.

The quality of long-term relationships, as perceived by the individual over time, may influence motivations to support frail, elderly family members (Golant, 1978). When people perceive the relationship as rewarding in terms of exchange, they may use their perceptions of the relationship quality as a commodity in maintaining their relationship and hence in caring for their partner. In this sense, it can be said perception of relationship quality forms
the basis of commitment to the relationship. Those who perceive the quality of the relationship to be high, are more likely than others to be highly committed to the relationship. As a result, they are likely to perceive less stress in the caregiving situation.

In addition, resources individuals have play an important role in maintaining their relationships. People may have to stay in their relationship because of a lack of resources, despite low commitment to the relationship. In this regard, caregivers' age, gender, education, health, income, and emotional support were included as background resource variables from an exchange theoretical point of view. Caregivers' depression was measured as an indicator of caregivers' stress. This research uses social exchange theory and commitment theory to examine the potential relationships among relationship quality, commitment, and caregiving.

**Significance of the Study**

The preponderance of research on commitment has focused on romantic relationships and courtship. It is probably taboo to examine family members' commitment to each other in the eyes of many experts and lay persons because the blood relationship is considered sacred. Rather, family members are more likely to assume an obligation and responsibility for themselves, particularly in caregiving.

Recently, it has become apparent that mundane, everyday behaviors influence interpersonal interaction, such as maintenance of relationships (Baxter & Dindia, 1990). With respect to caregiving tasks, the most frequent types of assistance are help with shopping, transportation, personal hygiene
functions, and indoor mobility (Stone, Cafferata, & Sangl, 1987). Accordingly, theorists have called for greater attention to everyday life behaviors, particularly as these affect perceptions about one's partner (Hays, 1989).

As applied to caregiving, a generation of gerontologists and helping professionals have highlighted the adverse effects of the role of caregiver on the quality of the close relationship because both caregivers and care recipients feel burdened (Adamson, Feinauer, Lund, & Caserta, 1992). The sense of burden and its outcome expressed by caregivers, however, are different in accordance with prior relationship quality (William & Schulz, 1990), and hence, with their commitment to the relationship.

This study permits consideration of the individual relationship that comprises the commitment in caregiving situations. Therefore, the present research has important implications for theories and interventions through its examination of the ways in which caregivers perceive themselves in terms of their commitment to helping the older population. Service providers can use this information to assess the attitudes of caregivers and suggest effective assistance and respite strategies to ease caregivers' burden.

**Research Questions**

The purpose of this study was to use social exchange theory to see how the relationship quality among various groups (e.g., spouses, aging parents-adult children) may influence caregivers' commitment to the relationship and caregivers' depression. Specifically, the study examined the following questions:
a) What are the direct and indirect effects of the perception of the quality of the relationship in explaining the caregiver's depression?

b) To what extent does commitment to the relationship explain the caregiver's depression?

c) What are the interactive effects of the quality of relationship and commitment with background variables (age, gender, education, health, living arrangement, income, emotional support, and marital status) on the caregiver's depression?
CHAPTER II: LITERATURE REVIEW

Theoretical Framework: Social Exchange Theory

Social exchange theory attempts to explain motivations for human behavior. According to social exchange theory, social behavior tends to be oriented toward the expectations and evaluations of other people. It is also motivated by a desire to maximize one's profits and to minimize one's costs (Homans, 1974).

One of the major concerns of exchange theory is that of 'norms of reciprocity'—the idea that "one should reciprocate favors received from others" (Nye, 1979, p.4). Theorists have focused on exchanges occurring within a dyad, and occasionally a triad, which include a broad range of commodities. This principle is considered significant as a basis for continuing profitable interpersonal transactions over time.

Notions of equity give a more accurate description of exchange (Mutran & Reitzes, 1984). Overbenefited persons may feel guilty (Adams, 1965; Walster, Walster, & Berscheid, 1978) because of their favored position and hence may attempt to reduce their indebtedness by repaying resources they have received. As people interact with each other, each exchange episode serves as a precedent. Based on this, the pattern of interaction would be anticipated by the individuals (Dowd, 1980).

This framework is concerned with the exchange relationship and the factors that mediate its formation, maintenance, breakdown, and the dynamics which characterize those processes (Sabatelli & Shehan, 1993). According to Homans (1974), when an unbalanced exchange pattern exists,
the person who gives more to his or her partner will be more likely to perceive that relationship in a negative manner. Individuals evaluate the rewards and costs in terms of what they think they deserve (Homans, 1974; Rank & LeCroy, 1983). As for family research, dependent elderly family members may find it difficult to maintain satisfactory relations in terms of exchange because of their greater inability to reciprocate favors to their younger counterparts (Bengtson & Dowd, 1980).

Caregivers usually have more tangible and intangible resources that the elderly need and value. These may include time, energy, space, goods, and services. The elderly, on the other hand, typically have fewer and fewer exchangeable resources as they age. The result is that there is a widening imbalance between caregivers and care recipients (Brackbill & Kitch, 1991).

Then why do families provide care to their older family members in spite of the elderly people's seemingly declining resources? Brackbill and Kitch (1991) suggested that caregivers' satisfaction is positively correlated with their responsibility for their frail elderly, thus they experience the reward of fulfilling a sense of obligation. Caregivers predominantly seem to be motivated by moralisms of obligation, filial responsibility, and wanting to reciprocate (Fitting, Rabins, Lucas, & Eastham, 1986; Brody, 1995). The expression of negative feelings by the elderly may unintentionally trigger a sense of obligation from their adult children (Mutran & Reitzes, 1984). Adult children, particularly, wish to repay for the years their parents spent caring for them (Suitor, Piilemer, Keeton, & Robison, 1995; Walker, Pratt, Shin, & Jones, 1990). Blieszner and Hamon (1992) observed that "children may endorse filial norms in an effort to avoid the costs that would be inflicted
upon them in the way of social disapproval for not being concerned about
the well-being of their parents." (p. 113)

In spousal caregiving, reciprocity operates to stabilize marital
relationships by establishing interdependence and expectations. The
interdependent marital relationship is characterized by patterns of exchange
which emphasize mutual rewards that reflect the needs of marital partners
(Sabatelli & Shehan, 1993). Scanzoni (1979) applied the concepts of
reciprocity and indebtedness to understanding marital role consensus.
Conflict arises when the norm of reciprocity is not respected. Since women
are more likely to be socialized as caregivers (Blieszner & Hamon, 1992;
Gilligan, 1982), it is reasonable to predict that responsibilities, resources,
and exchange orientation might be different for men and women (Sabatelli &
Shehan, 1993). The majority of middle-aged women, particularly those with
a surviving parent, can expect to provide parental caregiving at some point
in their lives (Himes, 1994). An even more probable case is a wife who
cares for her impaired husband (Cantor, 1983; Stone et al., 1987).

Caregiving may begin with a significant amount of reciprocity in
various forms. At the latest stage of illness, however, caregivers may
perform their role without any obvious reciprocation from care-receivers
(Suitor et al., 1995). Brody (1990) documented that less strain was
experienced when there was a history of prior affection between caregivers
and care takers. Williamson and Schulz (1990) found that greater closeness
prior to the onset of dementia resulted in less burden during caregiving.
Further, Schulz and his colleagues (1989) illustrated that the reciprocity
norms in aging parents-adult children relationships command us to pay back
what others give to us. A relationship is equitable if those involved receive a return from it that is proportional to what they have invested in it.

The notion of social exchange is obviously relevant to understanding caregiving behavior. It may be useful for examining caregiving behavior from a life course perspective because it looks at relationship building within a developmental context (Emerson, 1981). Both the aged and the caregiver enter the relationship with a history of interactions which may govern a sense of duty in caregiving (Horowitz & Shideman, 1983).

This study addresses the question of how the caregivers' perception of relationship quality with their care-receivers may influence their level of commitment to the relationship and may result in depression as a psychological consequence of caregiving behavior. I tested the proposition that the quality of the relationship is regarded as a commodity in exchange relationships by caregivers.

H1: Relationship quality and depression among caregivers will be inversely correlated.

Social Exchange: Determinant of Commitment to Relationship

Definition of Commitment

Commitment is a word with many meanings for different people and contexts. More than 30 years ago, Becker (1960) pointed out commitment is used to explain why people engage in a consistent line of action. Becker suggested two elements of commitment as a source of consistency in human behavior. First, some interests that were initially unrelated to a particular line of activity are now related to it because of something the
person has done. Second, the individual becomes aware of the fact that his or her continued action has implications for the originally extraneous interest. The interests that are created may be unrecognized by individuals in their routine lives (Nock, 1995). However, as Becker (1960) noted, continued actions are 'side bets' that gradually build the sense of commitment.

Researchers describe commitment in various ways, reflecting aspects of emotion, behavior, or its function as a mediator. A more recent work by Stanley and Markman (1992) elaborates the concept of commitment. These researchers characterized personal dedication as the desire to maintain the relationship. Constraint commitment refers to the thing that constrains individuals to keep the relationship despite a lack of personal dedication. Constraints can be seen as costs to terminating a relationship. If a person perceive fewer costs to forgo the relationship, there is less commitment to it. This observation makes it possible to define and measure commitment (Nock, 1995).

Brickman (1987) and Rusbult (1991) also refer to two dimensions of commitment: voluntary and involuntary. The involvement of voluntariness is an internal construct, based on a person's emotion (Johnson, 1973; Quinn, 1982) and is described as personal dedication by Stanley and Markman (1992). Involuntary commitment is defined by Johnson (1991) as structural and an external constraint. Further, Johnson included moral commitment as an internal motive, but a constraint on alternative relationships.

Other conceptualizations exist. Johnson (1991) indicated that people have two kinds of commitment: toward a certain relationship and an
individual. Johnson described commitment in the context of a close relationship as "commitment to lines of action that will prevent the elimination of interdependence" (p.120). The common understanding of commitment is "whatever it is that makes a person engage or continue in a course of action when difficulties or positive alternatives influence the person to abandon the action." (Brickman, 1987, p.2)

To explain commitment, Johnson (1973) employed a social exchange framework. The concepts of alternatives and reciprocity were used in developing commitment theory. A lack, or unattractiveness, of alternatives reflects the possibility of negative change, such as loss of status advantage from the relationship when considering termination of the relationship. Barriers to change is another theme of social exchange. Levinger (1976) characterized a barrier as the bond that holds individuals in a relationship beyond personal attractions.

Besides the emotional element of commitment, behavior is also an important indicator of commitment. Behavior reflects one's commitment in daily life, especially when a partner moves toward or away from the relationship (Johnson, 1991). Whether or not commitment is regarded as a feeling, or a behavior, it is closely related to one's socialization and developmental stage.

To summarize, I conceptualized commitment as one's internal and external force leading toward continuation of a particular course of action in this study. In the following sections, Rusbult's investment model and Johnson's types of commitment (e.g., Johnson, 1973, 1991) will be discussed from a social exchange perspective.
Commitment as a Construct for Social Psychology

The factors that influence the relationship process have been a focus of research on the dynamics of close relationships (Young & Sollie, 1982). Commitment is part of a large group of global concepts that researchers have found useful in describing relationships, especially in thinking of what draws individuals together to form and maintain their relationships (Kelley, 1983). In fact, there are subtle differences in the meaning of commitment when comparing the literature of psychology to that of sociology. Specifically, psychologists are likely to see commitment as a cause while sociologists often focus on a longer period of time of dedication to carry out a line of action (Leik, Van Cleave, Zimmerman, Kroening-Smith, & Geiger, 1978).

Commitment is a compelling concept that social psychology can use to integrate people's internal and external concerns. In part, it is versatile because the idea of commitment refers to the fact that "people control and shape their internal environment, their thoughts and feelings, in the service of adapting to their external environment" (Brickman, 1987, p. 16). As applied to caregiving, commitment plays an important role in differentiating caregivers' motivation, willingness, action, and its consequences. In this regard, commitment can be seen as a bridging construct between two themes of social psychology—people's internal and external control (Brickman, 1987).

As an issue of social science research, commitment has been defined as an independent variable, an intervening variable, or a criterion of various constructs such as motivation (Johnson, 1991; Stanley & Markman, 1992)
and exchange (Cook & Emerson, 1978; Michaels, Acock, & Edwards, 1986). In short, commitment benefits research when it is studied to show how it functions in interpersonal life.

**Rusbult’s Investment Model**

Rusbult’s (1991) investment model emerged from Thibaut and Kelley’s (1959) interdependence theory. Interdependence theory proposes that dependence on a relationship is a function of relationship satisfaction or feelings of attraction to one’s partner and relationship, and comparison level for alternatives. In developing her model, she argued commitment is not predictable merely from relationship satisfaction and alternatives but commitment is influenced by investments which result in psychological attachment to an ongoing relationship.

Rusbult (1980) specified the concept of investments as the resources 'put into' a relationship that increase the costs of withdrawing from it. Those resources could have an impact on relationship quality whether individuals feel rewarded immediately or not. Extrinsic investment occurs when previously extraneous interests are linked to current behavior. The intrinsic investment of resources such as time, emotional involvement, and self-disclosure, should also increase commitment. These "irretrievable investments" (Johnson, 1991, p. 122) are forces that keep people from leaving a relationship.

Within the social exchange framework, Rusbult’s investment model is useful to conceptualize the process of personal interaction. In explaining commitment to relationships, she provides valuable information on the source of commitment. When individuals perceive they are rewarded
relatively less than they invest, the relationship will be less stable due to low commitment which results from the gap between investments and rewards.

The investment model is promising to observe commitment in another sense. It claims people will stay in their relationship due to the investments they receive. In this context, the investment can be considered as an external determinant that makes individuals maintain a relationship. While the notion of 'pay back' is helpful to highlight adult children's commitment to their relationship with aged parents, Rusbult's model is useful to observe commitment in marital relationships.

Rusbult's (1983) study of her investment model showed commitment is likely to increase over time because of "increases in rewards, declines in alternative quality, and increased investment" (p.114). The assumption is particularly relevant to comprehending how individuals act in a long-term relationship.

**Johnson's Types of Commitment**

Thus far, I have discussed why people choose to continue in personal relationships. When people feel commitment to their relationships, they attach various meanings to the idea of commitment as well as to the level of commitment. People keep their relationships "because they feel that they want to, ought to, or have to do so" (Johnson, 1991, p. 118). The socio-psychological commitment model developed by Johnson (1973, 1982, 1991) offers a rich background for research on long-term commitment in adult relationships. A primary feature of Johnson's (1991) model is the types of commitment: personal, moral, and structural.
**Personal Commitment.**

Personal commitment is described as wanting to stay in a relationship, as a choice made by the individual's internal preference. The three components of personal commitment involve *attitude toward the partner*, *attitude toward the relationship*, and *relational identity*.

**Attitude Toward the Partner.** This component of commitment refers to attraction and affection for the partner. In her research on commitment in long-term cohabiting couples, Galway (1994) reported that this is the only commitment element that influences in maintenance of the relationship.

**Attitude Toward the Relationship.** This component is often mixed with attitude toward the partner (Johnson, 1991). The quality of the relationship affects one's sense of "being in a relationship" (Galway, 1994, p. 39). Also, research on abusive relationships indicates it is possible to have an unattractive relationship beyond one's affection for his or her partner (Strube & Barbour, 1983).

**Relational Identity.** The identity provided by the relationship is incorporated into one's self-concept. Stryker and Serper (1982) noted that commitment affects identity salience which in turn affects social behavioral repertoires. Lopata (1973) and Galway (1994) reported that relational identity was not an important component on self-concept in their studies of widows and long-term cohabiting couples. However, Johnson (1991) pointed out that relational aspects of identity are central components of the self.

**Moral Commitment.**

Moral commitment, or feeling one should stay in a relationship, is a
restraint on terminating the relationships. "I am not doing what I want to do, but rather what I feel is right" (Johnson, 1991, p. 121). However, it is also internally derived according to Johnson (1991) and Rusbult (1991). Three sources of moral commitment involve general consistency values, relationship type values, and a partner-specific obligation.

**General Consistency Values.** Dissonance or discomfort can be caused by inconsistency in terms of socialization in a given society and expectations people create, when making plans that depend on predicting actions of others. People tend to transmit the value of consistency over generations (Johnsen, 1991).

**Relationship Type Values.** The second component of moral commitment refers to values regarding the stability of particular types of relationships. It should be noted that values in institutional structures are not the issue. "One is morally committed to a relationship only to the extent that one accepts the values as one's own" (Johnson, 1991, p. 121). Johnson (1991) asserted moral commitment is part of one's own value system and it is not to be confused with religious beliefs or formal norm enforcement. Despite of a lack of a general measure on relationship type values, some attention was given to one's feelings concerning the morality of divorce.

**Partner-Specific Obligation.** The third element of moral commitment involves a sense of obligation. A sense of obligation can exist as an unwritten contract but separate from any external enforcement. Galway (1994) indicated a sense of obligation as a personal contractual form rather than sacrifice. This sense of obligation existed for most long-term cohabiting
couples. Nock (1995) hinted that obligations to one's spouse appear to produce personal commitment.

**Structural Commitment.**

Structural commitment, the notion that one has to continue a relationship, is a constraint on the individual's range of choices and is externally influenced by society (Johnson, 1991). As Stanley and Markman (1992) noted, constraints are a major determinant of relationship stability. These include *irretrievable investments, social reaction, availability of acceptable alternatives,* and *difficulty of termination procedures.*

**Irretrievable Investments.** Individuals spend their tangible and intangible resources to keep a relationship, and may perceive them as irretrievable investments; therefore they stay in the relationship whether or not they feel personal and moral commitment. People are future-oriented when they invest and assume the invest will be returned. Johnson (1991) illustrated that "one is not simply exchanging something for an immediate return of comparable value, but is depositing something for a period of time in the hope that it will provide returns beyond its initial value" (p.122). When people are aware of the investments made in anticipation of a future, they are motivated to maintain the relationship.

**Social Reaction.** Members of one's social network may have an opinion about the possibility of a relationship dissolution. Social reaction comes from two different sources: 'the effects' of relationship process on the structure of one's network, for example, the relationship with children after divorce, and 'the changes' in the reactions of friends or families to the prospect of dissolution (Johnson, 1991). Social reaction may vary in
according with types of relationships.

**Availability of Acceptable Alternatives.** When one considers leaving a relationship, one will evaluate positive and negative consequences including availability of alternatives which are necessary for their social, emotional, and economic situation. The range of availability of alternatives will be different among various population groups. The aged person who is considering divorce should seek benefits and costs of the long-term marriage as well as resources which the person currently has (Lloyd & Zick, 1986). The person who is dependent on his or her partner’s resources and does not have alternatives to replace them will be more likely to stay in the relationship.

**Difficulty of Termination Procedures.** Ending a relationship is an action which results in some type of cost. The difficulty of the ending process depends on the degree of emotional, social, and economic complications in a relationship (Johnson, 1991).

In spite of the fact that personal, moral, and structural commitment are quite different, they all produce relationship stability and can be treated as mediating variables in studying motivations of a particular action and relationship dynamics.

**Life Course Perspective on Relationship Quality and Commitment**

Time is incorporated in relationship development. Because complex patterns of interactions between people do not take place overnight, it is reasonable to use a life course approach to describe and predict relationship dynamics. Passuth and Bengtson (1988) asserted that the life course
developmental perspective is not a theory, but it is helpful to understand human behavior.

Though researchers tend to conduct cross-sectional studies in personal relationships for a variety of reasons, the nature of perception of relationship quality and commitment is retrospective. According to social exchange theory and commitment theory, people invest their resources to maintain a relationship, and once they believe the accumulated resources will be returned in the future, they continue the relationship. Michaels et al. (1986) indicated that commitment is the outcome of the "monitoring of rewards, cost, attractive alternatives," (p. 162) and other marketable values. Nock (1995) described commitment as "a subjective assessment of likely consequences of ending the relationship" (p.505). For some people, time itself can be an important source of staying in a relationship. Further, exchange variables play a significant role in the intimate relationships, particularly when the relationship is described as a serious and long one (Michaels, 1986).

Williamson and Schulz (1990) documented that prior relationship quality is associated with caregivers' commitment toward their care recipients. Jarret (1985) also suggested that caregivers who feel less affection for the patient may experience no emotional gratification from helping. In short, individual commitment should be higher in equitable relationships than inequitable ones.

On account of Rusbult's investment theory and Johnson's commitment theory, relationship quality serves as a factor which predicts individuals' commitment to the relationship. The pleasant experience with
investments may produce the positive force to continue a relationship. 'Irretrievable investments' are external forces that keep people in a relationship.

H2: Relationship quality will have a positive effect on commitment to the relationship.

The Link Between Commitment and Caregiving

When impairment leads to increasing dependency on others, a need for reconstructing the previous relationship can occur. Help, assistance, and affection become unidirectional, eventually going only from a caregiver to a care-receiver. This transition of a relationship is one of the major sources of discomfort (Pearlin, 1990). Although many caregivers experience inner growth through caregiving (Hamon, 1989), studies have shown it is not an easy task to contend with the mounting burdens resulting from caregiving (e.g., Miller, & McFall, 1992; Montgomery, Stull, & Bogatta, 1985; Vitaliano, Russo, Young, Teri, & Maiuro, 1991).

One will find a number of caregiver burdens. The sources of these burdens vary with severity of diseases, care recipients' problematic behaviors, family conflicts, financial difficulties, role capacity, and competing demands that caregivers face. Also, the effects of ascribed status such as age and gender, along with education and socioeconomic status, are identified to influence one's perceived stress (George & Gwyther, 1986; Gwyther, 1992; Pearlin, 1990).

The link between demographic, social, and economic characteristics of caregivers and caregiving behavior is of greatest importance. And there
have been recent calls to move caregiving research toward greater sophistication (George, 1989; Zarit, 1989). Because most informal caregiving occurs in close relationships, and the relationships are likely to have matured over time, there may be psychological and obligatory motives for responsibility, and these may have an impact on caregiving (Walker, Pratt, Shin, Jones, 1990).

It is possible that feelings of obligation in caregiving are reflected in the commitment which has been experienced over a long time. Caregivers may feel obligated to respond to the patient's dependence. Even if someone's level of personal commitment to the relationship is low, the caregiver could continue the particular course of action due to structural commitment (cf., Johnson, 1991). Blenkner (1965) asserted that a sense of duty enhances parent-child ties, and aid to intergenerational partners is motivated by feelings of obligation. In this regard, commitment is a critical factor to understand motivations for caregiving behavior. Therefore, it can be hypothesized that a lower level of obligation or moral commitment to the relationship will adversely affect the caregiver's mental health.

Structural commitment can be depressing in any relationship, if personal and moral commitment is low. It is hardly noticed if someone's internal preference is high. In a word, the most serious depression is expected in case of high structural commitment combined with low personal and moral commitment (Johnson, 1995; Personal Communication). The interaction of moral and structural commitment should be a better predictor of the caregivers' depression than either moral commitment or structural commitment alone. In the present study, moral commitment is emphasized
over personal commitment because of the inability to measure respondents' personal commitment to the relationship with their spouses. In parental caregiving, only moral commitment will be included in the causal model. 

**H3:** The interaction of moral and structural commitment will have a negative effect on depression among caregivers.

**Psychological Consequence of Caregiving: Depression**

**Conceptualization of Depression**

Psychological well-being is seen as a subjective state resulting from general psychopathology and situation-specific stressors (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991). Providing care for a frail elderly family member results in many hardships. Therefore, the caregiver's mental health status could be viewed as a psychological outcome of caregiving stress rather than a caregiving burden (George & Gwyther, 1986).

A body of researchers who selected depression as a dependent variable found caregiving has a greater impact on psychological strain than other dimensions such as physical or financial strain (Dura, Stukenberg, & Kiecolt-Glaser, 1990; George & Gwyther, 1986; Horowitz, 1985; Townsend, Noelker, Deimling, & Bass, 1989). Many researchers focus on discrete aspects of the caregiving stress, such as depression or anxiety (Mohide & Streiner, 1993). It is necessary to understand the mechanisms of how depression is related to stress.

Depression is a complex phenomenon and has many dimensions and causes. It is viewed as a psychological response to the human organism and related to genetic factors (Chaisson-Stewart, 1985). It is possible for
everyone to feel depressed occasionally, experiencing a mood of sadness, boredom, and lethargy. When this mood persists or recurs, to a degree that disrupts normal life, work, and relationships with others, the individual can be considered to be suffering from depression (Mendel, 1972).

Psychiatric illness can be found when a person has evidence of an unhealthy condition of mind. In using self-reported depressed mood or symptom scales, researchers are not measuring diagnosed psychiatric illness. Rather, an attempt is made to measure depression as "a group of symptoms" (Ensel, 1986, p. 52). It is actually the prevalence of depressive symptoms that are measured in a population. In fact, a substantial number of caregivers express depressive symptomatology rather than clinical depression.

Clinical depression is characterized by severe symptoms—for instance, suicidal behavior (Tousignant & Hanigan, 1993) and a prolonged duration of a profound depressed mood (Osgood, 1982). Recent advances in the understanding of depression help clinicians distinguish individuals suffering from clinical depression from those who report the symptoms of normal aging or other psychiatric disorders. The dexamethasone suppression test (DST) can provide insight to diagnosing depression at any stage of life (Blazer, 1982).

In addition, evaluating sleep patterns of depressed older adults has enabled researchers to distinguish the depressed elderly from those suffering from dementia and those who are aging normally. Depressed people have a shortened rapid eye movement (REM) latency. In other words, it takes a shorter period of time for these individuals to enter the first stage
of REM. The combination of these two diagnostic tests—DST and REM latency—along with other tests, such as DSM-III criteria for Major Depressive Episodes, provides an opportunity to identify major depression (Blazer, 1982).

In this study, the Center for Epidemiologic Studies Depression (CES-D) Scale, which is included in the National survey of Families and Households (NSFH), is used. The scale is a self-reported measure in a given population during the week prior to the actual interview (Radloff, 1977). The advantages of this kind of symptom scale are: (1) the comprehensive depressive symptomatology is examined; (2) the measures are based on a continuous metric, which is appropriate for use with a broad range of statistical techniques (George, 1989); (3) it has been well validated on nonpsychiatric community populations; and (4) it minimizes the somatic symptomatology that might confound symptoms of chronic disease (Mohide & Streinier, 1993). However, using such a measure is criticized due to the low validity of the symptom scale (George, 1989).

The twenty items comprising the scale were chosen from previously utilized depression scales: the Zung Depression Scale (Zung, 1965), the Beck Depression Scale (Beck, Ward, Mendelson, Mock, and Erbaugh, 1961), portions of the Minnesota Multiphasic Personality Inventory (Dohlstrom and Welsh, 1960), the Raskin Self-Reported Depression Scale, and the Gardner Symptom checklist (Gardner, 1968). These items are assumed to represent all the major components of depressive symptomatology (Radloff, 1977).

Radloff (1977) found the items clustered in four dimensions: (1) depressed affect, which included items like "having the blues," "feeling
lonely," "crying," "feeling sad"; (2) positive affect, including four positively
worded items such as "feeling good," "hopeful," "happy," and "enjoy life";
(3) somatic and retarded activity, including "trouble sleeping," "decrease in
appetite"; and (4) interpersonal feelings, including "feel people are
unfriendly," and "disliked the person."

Since I am concerned with examining the psychological outcome of
caregiving, measuring depression of caregivers is appropriate for the
inception of the study. These four clusters of the symptomatology seem to
be related to caregivers’ fatigue.

Frustrated needs and motives, discrepancy between aspiration and
achievement, and recall of unpleasant experiences are all examples of
internal stressors indirectly related to the current social interactions or
situations (Pancheri & Benaissu, 1978). These internal conflicts may not be
seen as stressors per se. However, if one considers life events to include
internalized conflicts as stressful ones, the person can be vulnerable to
depression (Chaisson-Stewart, 1985; MacLean, 1976). This perspective
appears to be compatible with an explanation of the link between caregiving
stress and depression.

Caregiving and Depression

Much remains to be learned about depressive symptomatology among
family caregivers. Some caregivers may be clinically depressed and the
number of caregivers in this range is unknown (Mohide & Streiner, 1993).
Fitting et al. (1986) noted most caregivers experience a dysphoric mood
that may "reflect their demoralized state rather than a major depression" (p.
250). Caregivers can feel a sense of despair where they perceive the
situation as irreversible.

The difference between clinical depression, hopelessness and despair is an important issue. Receiving a high score on a depressive inventory does not necessarily mean that the caregiver suffers from clinical depression. On the one hand, caregivers suffering from clinical depression may require appropriate treatment, but not respond to supportive interventions. On the other hand, caregivers experiencing despair are more likely to require services that will improve their well-being (Mohide & Streiner, 1993).

Another problem is that most depression inventories, including the CES-D Scale, are inappropriate for older caregivers. The instruments assume disturbed sleep, poor appetite, or decreased libido are manifestations of a biological depression. Actually, all these symptoms can reflect either the natural course of aging (Cohen, 1990) or the nature of the caregiving situation itself. Thus, it is possible that studies using scales standardized on a younger sample may overestimate the prevalence of depression or depressive symptoms among older caregivers (Dura et al., 1990).

In the present research, caregivers' psychological consequences are indicated by twelve items of the Center for Epidemiologic Studies Depression Scale (CES-D, Radloff, 1977). A number of gerontological researchers have used a variety of depression measures to investigate caregivers' mental health status (e.g., Lawton, et al., 1991; Young & Kahana, 1995). However, there appears to be a conceptual gap in the connection between a person's depression symptoms and the extent of caregiving behavior. The void requires a systematic relationship between those two concepts (Mancini & Benson, 1989). If clinicians or researchers
act on the basis of the literature with some methodological problems, such as lack of homogeneity of caregivers and care recipients, caregivers may be at risk of being inappropriately labeled and treated for depressive illnesses. Nevertheless, at least using depression scales would make it possible to identify the most troublesome problems in order to alleviate caregivers' burdens.

**Issue of Causality**

My research assumes a causal relationship between caregivers' prior relationship to care-receivers, commitment to the relationship, and depression in parental and spousal caregiving. However, it can be expected that depression is an antecedent of the quality of the relationship and commitment of caregivers.

A lack of data regarding prior relationship quality and depression limits the understanding of the nature of the association between those constructs. Typically, the quality of the relationship of a depressed individual is assessed after he or she is already symptomatic. The history of the caregiver's depression can confound causality that I assumed in the present study. This type of study is likely to yield information on the "temporal relationship" (Gotlib & Hooley, 1988, p. 561) between the quality of relationship and depression. Prospective studies of depression and other variables to test models of causality are needed.
Background Variables

Age

Lund (1985) emphasized the importance of investments in a relationship in the development of commitment. In the barrier model, particularly, effort and resources expended in a relationship are regarded as a process that strengthens a relationship (Levinger, 1976; Nock, 1995). The weight of accumulated time, effort, and resources invested should correspond to a person's expectations for relationship maintenance. Moreover, older people are less likely to have prospects of alternative relationships. Thus, older adults tend to stay in the relationship, knowing the cost of ending it.

H4: Age will be positively related to commitment to relationship.

Himes (1994) observed that caregiving that occurs in later life has a different effect on the lives of women than caregiving that takes place in earlier life since other familial and societal responsibilities are reduced. Lawton et al. (1991) and Schulz et al. (1988) reported that younger caregivers—for example, younger parental caregivers—have more competing demands, such as the responsibility for child rearing and employment that require the caregivers' energy. Therefore, providing care for their elderly family members may have a stronger impact on caregiving burdens among younger caregivers.

H5: Age will be negatively related to depression among caregivers.

Gender

Adams (1965) found reciprocity to be a key factor in maintaining a satisfactory relationship. One's desire to stay in a relationship would be
affected by his or her speculation on personal dedication and external
consstraints (Stanley & Markman, 1992). To be specific, evidence of links
between sex differences in relationship maintenance and gender-related
inequalities on socioeconomic status indicators (for example, income,
occupational prestige) could have implications for commitment. Such
inequalities may act as vulnerability factors that increase external
commitment to the relationship in women (cf. Nock, 1995).

In the relationship between aging parents and adult children, adult
daughters are more likely to see their relationships with their parents as
giving them a sense of satisfaction, whereas adult sons tend to describe
their relationships with their parents as being motivated by a sense of
obligation (Mutran & Reitzes, 1984).

H6: Females will have higher levels of commitment to relationship.

Males are expected to make few contributions to caregiving (Finley,
1989). In fact, only 27 percent of the informal caregivers surveyed by the
1982 to 1984 National Long-Term Care Demonstration are men. And male
caregivers are predominantly the husbands of frail elderly women (Chang &
with caregiving than do men (Barusch & Spaid, 1989; Brody, 1990) due to
the different life experiences and socialization (Pruchno & Resch, 1989). In
other words, because women are expected to provide care and support to
others, they are more likely than men to be affected by stressful events
involving significant others in their family relationships and social network.

H7: Females will score higher in depression in caregiving than males.
Health

From a social exchange perspective, health can be part of a person's resource in a relationship. Therefore, an individual with poor health will have to be more dependent on his or her partner. In this case, health plays a role as an external constraint in staying in a relationship (Stanley & Markman, 1992).

As for caregiving, a great amount of earlier research has shown that caregivers' health is a significant predictor of variation of caregiver burden because caring for an impaired elderly person requires a substantial amount of physical strength (Pratt et al., 1985; Schulz, 1988; Vitaliano et al., 1991).

H8: Respondent's health will be negatively related to commitment to relationship.
H9: Respondent's health will be negatively related to depression in caregiving.

Living Arrangement

What circumstances generate a joint living arrangement? Although there is a paucity of data in previous research regarding this question, Brackbill and Kitch (1991) indicated the most frequent reason is a health problem of the elderly family member. Having an elderly parent move in with them can be triggered by adult children's feelings of filial responsibility. Caregivers reported a greater increase in satisfaction when they agreed that it is a child's responsibility to care for frail elderly parents (Bracilbill & Kitch, 1991). Cicirelli (1983) asserted that children's sense of responsibility is correlated with their willingness to help and the strongest filial obligation is
the most satisfied with joint living.

**H10**: Parental caregivers who live with their care-receivers will show higher commitment to their relationship with the care-receivers than those who live apart.

As time passes under the joint living arrangement, the elderly family member becomes a burden. This is particularly true when the caregiver struggles with other competing demands (Noelker & Townsend, 1987) or when there is conflict between the elderly person and the caregiver or the caregiver’s family (Cicirelli, 1981). Besides the commitment to the parent-child relationship, there are factors that influence caregivers' burden when they live together. However, the preponderance of research on caregiving has reported more of the caregivers stress among who live with their care takers than those of who do not.

**H11**: Parental caregivers who live with their care-receivers will score higher in depression than those who do not.

**Income/Education**

In a relationship in which there is dependency, a dependent partner presumably benefits more than the other partner, so he or she tends not to leave the relationship. For example, women earn less than their male counterparts or are more likely to need a family income (Nock, 1995). Rusbult (1983) asserted that poor alternatives promote increased commitment. The idea of barriers (Levinger, 1976) or external constraints (Stanley & Markman, 1992) is consistent with the assumption of dependency of women in terms of their economic status. To the extent that one partner has more or less education, it can said the level of commitment
to the relationship will result from the differential earning due to education (Nock, 1995).

**H12**: Respondent’s income will be negatively related to commitment to relationship.

**H13**: Respondent’s education will be negatively related to commitment to relationship.

Pearlin and his colleagues (1990) suggested social and economic characteristics of the caregiver are likely to specify the caregiving environment and subsequently affect a variety of aspects of the caregiver’s life. Theoretically, it is possible to purchase a wide range of services to care for the elderly if a caregiver can afford to do so. Schulz et al. (1988) reported income is one of the significant predictors of depression among caregivers. Individuals who have higher incomes are less depressed because they are more likely to seek help from outside. Education can be expected to secure economic status.

**H14**: Respondent’s income will be negatively related to depression in caregiving.

**H15**: Respondent's education will be negatively related to depression in caregiving.

**Emotional Support**

The availability of formal/informal support is a factor in maintaining a relationship. Emotional support contributes to establishing of one’s familial and societal norms (e.g., Johnson, 1991) and regulates the effects of potential stressors. Numerous gerontological researchers documented that a social network is a source of instrumental help (Lawton et al., 1991) as well
as interventions (Gallagher et al., 1989). Understanding caregivers' strain can be facilitated by considering both the demands and resources. Antonucci (1990) cited Rook and Pietromonaco (1987) in pointing out the negative aspects of social relationships, which involve ineffective help and unwanted or unpleasant interactions. However, the preponderance of research on social support has shown a positive impact on well-being.

**H16:** Emotional support will be positively related to commitment to relationship.

**H17:** Emotional support will be negatively related to depression among caregivers.

**Marital Status**

Although spousal caregiving may be characterized as "exhibiting full commitment to that role" (Lawton et al., 1991, p.188), the burdensome quality of caregiving among adult children is pervasive because there is more competition from other roles. In turn, married adult children will experience lower levels of commitment to their relationship with their parents and higher levels of parental care strain than those who are not married. In particular, caregivers who share a household with a disabled parent are more vulnerable to caregiver strain (Brody, Litvin, Hoffman, & Kleban, 1995).

**H18:** Marital status of adult children will be negatively related to commitment to parent-child relationship.

**H19:** Marital status of adult children will be positively related to depression in parental caregiving.
The Model

This study addressed a model of relationship quality, commitment to the relationship with caregivers, and depression among spousal and parental caregivers. Research in social exchange theory and commitment theory needs to be extended to the motivation and the outcome of caregiving behavior that I hypothesized.

The complete models as described by the hypotheses stated above are presented in Figure 1 and Figure 2.

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Insert Figure 1. here
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Insert Figure 2. here
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Figure 1. Hypothetical Causal Model 1: Spousal Caregiving
CHAPTER III: METHODS

Sample

The data in this study are two subsamples (total N = 695) of the 13,017 respondents who completed the main interview and supplemental self-administered questionnaires of the National Survey of Family and Households (NSFH) (Sweet, Bumpass, & Call, 1988). A summary description of the sample is presented in Table 1.

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Insert Table 1 here

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The NSFH includes detailed information on families and their socioeconomic life histories and their social networks. This information was obtained in 1987-1988 from a representative national sample of respondents age 19 and older in the United States. The survey design is cross-sectional but includes retrospective measures.

The sample was weighted to adjust for household selection probabilities and nonresponse and to match the current U.S. population profile for age, race, and sex. Two subsamples of the NSFH respondents who are primarily responsible for parental caregiving (N = 465) or spousal caregiving (N = 230) were used for this analysis. Past research documented that the vast majority of informal caregiving is provided by adult children or spouses (Stone et al., 1987).

In this research, caregiving is defined by a pair of questions asking: "Do you or does anyone living here require assistance because of a disability
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Total Sample = 695
or chronic illness?" (N = 306), and "Sometimes people help take care of relatives who are seriously ill or disabled, and who do not live with them. Have you provided such care at any time during the last 12 months?" (N = 389) in either case, if respondents indicated they primarily provided care to a parent or a spouse in the past year, they were considered caregivers.

In this particular data set, there were 895 primary caregivers for parents or spouses, consisting of 695 White caregivers, 160 Black caregivers, and 40 other racial ethnic caregivers. Only White respondents were included in the analysis because of its skewedness.

The mean age for the sample was 47.6 years, median income was $22,500, mean income was $33,760 (SD = $55,224), and mean education was 12.5 years. There were 460 females and 235 males. In this sample, 440 of the respondents were married and 255 respondents were not married.

Measures

Criteria Variables

Depression. In the NSFH, depression is measured using 12 items requiring caregivers to rate their level of symptoms with the following statements:

- Feel bothered by things that usually don't bother you?;
- Not feel like eating; your appetite was poor?;
- Feel that you could not shake off the blues even with help from your family or friends?;
- Have trouble keeping your mind on what you were doing?
- Feel depressed?
- Feel that everything you did was an effort?
- Feel fearful?
- Sleep restlessly?
- Talk less than usual?
- Feel lonely?
- Feel sad?; and
- Feel you could not get going?

The 12 items are derived from the 20-item Center for Epidemiologic Studies Depression Scale (CES-D, Radloff, 1977). The CES-D was intended for use with cross-sectional samples in survey research. There was very little information in the other eight items (Sweet, Bumpass, & Call, 1988). Seven point ratings are made regarding the number of days respondents experienced a symptom within the past week. Scores are summed to yield a range of potential responses from 0-84, with the higher scores indicating higher frequency of depressive symptomatology. The mean score for this sample is 18.08 and the standard deviation was 18.59. Judging by the mean and the standard deviation, and the frequency (65.2%), most of the total respondents' depression scores were distributed below the mean. This measure in the NSFH has high internal consistency (Cronbach's alpha = .93).

**Structural Commitment to Marital Relationship.** Structural commitment is measured by asking a Likert-type question, which covers six areas of life: "Even though it may be very unlikely, think for a moment
about how various areas of your life might be different if you separated. For each of the following areas, how do you think things would change?":

- Standard of living;
- Social life;
- Career opportunities;
- Overall happiness;
- Sex life; and
- Being a parent.

The response choices ranged from much worse (1) to much better (5). The question about how being a parent would change was coded to the average of the other five items for those who have no children. The six items mentioned above were recoded with the high scores indicating a higher level of structural commitment to the marital relationship.

These items are similar to Johnson's description of structural commitment (1991) in terms of the availability of alternatives in their social life, emotional status, and overall quality of life if they end the relationship and moral commitment to the relationship. In his research on commitment and dependency in marriage, Nock (1995) indicated the six areas are sufficient to tap critical elements of life. The measure also had high reliability (alpha = .79)

**Moral Commitment to Marital Relationship.** Respondents were required to rate their level of agreement with the statement, "Marriage is a lifetime relationship and should never be ended except under extreme circumstances." The response choices for this statement ranged from strongly agree (1) to strongly disagree (5). Respondents' moral commitment
to their marital relationship was measured by scores on this statement.

**Moral Commitment to Parent-Child Relationship.** Moral commitment is measured by requiring respondents to rate their agreement with the statement on a Likert-type scale, "Children ought to let aging parents live with them when the parents can no longer live by themselves." Response choices ranged from strongly agree (1) to strongly disagree (5). The item was recoded and it corresponded higher level of moral commitment with high scores.

This item involves a sense of moral obligation to provide care for aged parents. The sense of morality, which is driven by an individual's internal preference, is plausible in parent-child relationships because external forces that end parent-child relationships are less likely to be observed. An individual is morally committed to the relationship to the extent that the person accepts the value as his or her own. The item does not reflect religious belief (Johnson, 1991), social pressure, or family tradition.

**Background Variables**

- **Respondent's Age.** Respondents ranged in age from 19 to 85 years.

- **Respondent's Gender.** Gender was treated as a dummy variable. Men were coded 1 and women were coded 0.

- **Respondent's Income.** This variable is a combined measure of a respondent's total income from all sources (wages, social security, pensions, annuities, interest, dividends, public assistance, and other sources) in dollar amounts. For married respondents, the number represents the couple's total income.
**Respondent's Education.** Education ranged from no formal education (0) to doctorate or professional degrees (20).

**Respondent's Health.** Health was measured using responses to the question, "Compared with other people your age, how would you describe your health?" Responses ranged from very poor (1) to excellent (5). A single item to obtain the global rating of health has been accepted widely among survey researchers. The self-rating of his or her physical health is indicated by individual's perception and evaluation. This type of age referenced question used in the NSFH has been shown to be a good predictor of mortality (Rakowski, Fleishman, Mor, & Bryant, 1993) and is related to other health outcomes such as medical and functional indicators (Liang & Whitelaw, 1991).

**Living Arrangement.** This variable was used as a dummy variable. Caregivers who live with their care-receivers were coded 1 and those who did not live with their care-receivers were coded 0.

**Adult Children's Marital Status.** Parental caregivers' marital status was treated as a dummy variable. Married respondents were coded 1 and not-married respondents were coded 0.

**Emotional Support.** This is the number of relationships from whom respondents received advice or emotional support. Values ranged from no one (0) to 5 or more relationships (5). The types of relationships were friends/neighbors, sons/daughters, parents, brothers/sisters, and other relatives. For parental caregivers, help from parents was not included. Therefore, values ranged from no one (0) to 4 or more relationships (4).
Relationship with Parent. This is a global rating on a Likert-type scale of the quality of parental caregivers' relationship with their mother or their father. Values ranged from very poor (1) to excellent (7).

Relationship with Spouse. This also was a combined measure, which included:

- A global rating on a Likert-type scale of marital happiness which ranged from very unhappy (1) to very happy (7);
- Fairness in role allocation in household chores, working for pay, spending money, and child care which ranged from very unfair to me (1) to somewhat unfair to me (2), fair to both (3), somewhat unfair to her/him (4), very unfair to her/him (5) (reverse coded so that high values correspond to fairness). The question about child care was coded the average of the other three items for those who have no children;
- Disagreements in household tasks, money, spending time together, sex, having another child, in-laws, and the children which ranged from never (1) to almost every day (6) (reverse coded so that high values correspond to low levels of disagreements);
- Coping with disagreement—discuss your disagreements calmly, argue heatedly or shout at each other, and end up hitting or throwing things at each other ranged from never (1) to always (5) (reverse coded so that high scores correspond to desirable coping).

These four items commonly appear in major marital satisfaction or marital adjustment scales. For example, the Locke-Wallace Marital Adjustment Test (1959) contains a global question, areas of disagreement,
and conflict resolution, and Spanier's (1976) Dyadic Adjustment Scale measures dyadic consensus. Because these items have different metrics, they were converted to standardized scores prior to summation. The reliability of the measure was .66.

**Analysis of the Data**

Descriptive statistics were used to evaluate the demographic characteristics of the sample regarding age, gender, income, education, health, and marital status of adult children caregivers. Cronbach’s alpha was computed for the verification of the reliability of the scales. All hypotheses were tested statistically, using the 0.05 level of significance.

A complex statistical strategy, such as path analysis, is based upon a large number of underlying assumptions regarding the nature of the individual variables involved in the analysis, the relationships among the variables, the nature of causality, the inclusion of important variables in the model, and the theory being tested. Because I am interested in finding causal relationship between relationship quality and commitment within a social exchange theoretical framework, path analysis is robust for the present study. In terms of the association between theory and method, exchange theory requires an understanding of reciprocity among social actors which involves an observation of the patterns of previous interaction. Therefore doing path analysis to test a model based on exchange theory is legitimate. Through direct and indirect paths among variables in the model, I expected to see the complexity of the model in a holistic way.
The path analysis of the data was conducted using regression procedures on Version 6.0 of SPSS for Windows. The tolerances of the variables were computed in order to detect any problems of multicollinearity among independent variables. All tolerances were high, indicating multicollinearity between independent variables was not a problem (Norusis, 1993). All endogenous variables were regressed on each of the antecedent variables. Beta weights from the regression analyses were used as path coefficients and were used to calculate direct and indirect effects of the variables on depression.

An interaction term was constructed by moral commitment and structural commitment in spousal caregiving. Moral commitment had to be added to the second regression equation in a hierarchical fashion. The resulting change in \( R^2 \) could be used to test the significance of the effect of the interaction between the two variables on depression in spousal caregiving. If a significant interaction was found, a two-group design should be utilized to identify the nature of the interaction (Jaccard, Turrisi, & Wan, 1990). Moral commitment was dichotomized utilizing a median split to allow for comparison of the effects of structural commitment on depression among caregivers with high and low levels of moral commitment.
CHAPTER IV: RESULTS

This study involves testing a causal model between caregivers’ prior relationship to care-receivers, commitment to the relationship, and depression in caregiving. Because I have looked into caregivers’ depression of two different groups—spousal (Study 1) and parental (Study 2) caregivers—I will show the results of the study separately in this section.

STUDY 1: SPOUSAL CAREGIVING

Descriptive Statistics

The spousal caregivers consist of 230 respondents. The mean age of spousal caregivers was 57.1 years and most of the caregivers live with their care recipients (N=224). There were 143 female caregivers and 87 male caregivers. The respondents’ median income was $18,605, mean of education was 11.65 years, and mean of health was 3.98.

Spousal caregivers’ mean score for depression was 19.50 and the standard deviation was 19.49. In the study of spousal caregivers, Robinson (1989) reported the mean depression score as 21.90, using the CES-D depression scales. The depression scores for these spousal caregivers were relatively lower than those of Robinson’s subjects. The maximum value of the CES-D scale is 84. According to Radloff’s (1977) criteria, these caregivers fall into the category which represents lower than mild depression.
Spousal caregivers' marital quality ranged from -11.94 to 6.13. More than three quarters of respondents (81.3%) received emotional support from no one or from only one family member or friend. Spousal caregivers' mean score for structural commitment to marriage was 21.09 and the standard deviation was 3.77. The maximum value of this scale is 30, thus it can be seen spousal caregivers showed a fairly high level of structural commitment to their marital relationship. The mean for respondents' moral commitment was 4.08 and the standard deviation was 1.06. The maximum value of this scale is 5, therefore this sample showed high moral commitment to the marital relationship.

Correlations

The intercorrelations among the variables are presented in Table 2 along with the variable means and standard deviations.

________________________
Insert Table 2 here

________________________

Gender (recall that males were coded 1, females were coded 0), health, income, marital quality, and structural commitment to the marital relationship were negatively associated with caregivers' depression. In other words, females, those with good health, higher income, good marital quality, and high structural commitment felt lower depression in caregiving situations. The quality of the marital relationship and structural commitment to the marital relationship were strongly correlated \( r = .521, p < .001 \). That
Table 2. Variable Intercorrelation, Means, and Standard Deviations (N = 230)

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1-tailed Significance * p<.05   ** p<.01   *** p<.001
is, those with high marital quality were more likely than those with low marital quality to have high structural commitment so that they perceive their life as better with their spouses and vice versa. Moral commitment was positively associated with structural commitment. Thus it can be said that those who were committed to the relationship by internal preference, which is moral commitment in this case, had a higher structural commitment as well. Age, having separate household from care recipients, and being female were negatively correlated with emotional support from others. Education has a negative effect on the level of moral commitment.

**Path Analysis**

The path analysis outlined in Chapter III is based on separate regression analyses using the criteria variables of depression, structural commitment, and moral commitment to marital relationship in the model. The results of path analysis are presented in Figure 3. The beta weights reported in Table 3 serve as measures of the direct effects of the variables in the model on depression. As such they can be used to test hypotheses 1, 2, 7, and 9. Due to the poor fit of the data to the model, full decomposition of the effects was not pursued in this analysis.

________________________
Insert Table 3 here
________________________

________________________
Insert Figure 3 here
________________________
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<th>Independent Variables</th>
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<td>$R^2$</td>
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<td>.057</td>
<td>.332***</td>
<td>.059</td>
<td>.225***</td>
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* $p < .05$  ** $p < .01$  *** $p < .001$
Figure 3. Path Model 1, Direct Effects: Spousal Caregiving

* p<.05  ** p<.01  *** p<.001
Figure 3 illustrates that the direction of direct effects on depression predicted by the model was supported for the quality of the marital relationship (H1), gender (H7), and health (H9). Those who with low quality of marital relationship, poor health, and females felt higher level of depression. The effects of those variables on depression among caregivers are consistent with the results of previous studies (Barush & Spaid, 1989; Brody, 1990; Vitaliano et al., 1991; Williamson & Schulz, 1990).

Although there were other variables in the model, commitment variables in particular were not significantly related to depression, and the magnitude of the variance in depression explained by the regression is quite large ($R^2 = .225$, $p < .001$). The variance indicates that the model is fairly well fitted to the data from the NSFH.

Structural commitment is another dependent variable in this model. The direction of the effects of relationship quality was as predicted in the model (H2). The better the quality of the relationship with spouse, the greater structural commitment to the marital relationship (beta = .528, $p < .001$). In other words, those who perceive the quality of the marital relationship as high, feel their life with their spouse is better than without their spouse. People with higher marital quality are more likely to stay in their marriage.

One interesting finding is the higher moral commitment, the lower the structural commitment to the marital relationship (beta = -.138, $p < .05$). It can be seen in two different ways. On one hand, moral commitment does not necessarily result in structural commitment. That is, even if a person has a high level of moral commitment to the marital relationship, which is driven
by his or her internal motivation, the level of structural commitment can be low for some reason. For example, individuals may want to stay in their relationship but pressure from outside—family or friends, social reaction—would not allow them to do so.

On the other hand, since a person already has strong of moral commitment to the marital relationship, he or she is not affected by structural commitment which is rather involuntary in maintaining a relationship. I am not aware of any empirical research on the relationship between moral commitment and structural commitment. However, because of the strong positive effects of relationship quality on structural commitment in this particular data set, it seems to me the latter explanation is more plausible. Given that the respondents have good relationships with their spouses, structural commitment may not play an important role in the relationship maintenance.

Because the effect of structural commitment to the marital relationship on depression did not approach statistical significance, moral commitment was not added, in order to see interaction of structural commitment and moral commitment, to the second regression equation in a hierarchical fashion. Instead, moral commitment to the marital relationship was added to the regression equation in the same step as the other variables. Therefore, the third hypothesis was rejected.

Females and respondents with higher educational attainment received more emotional support from significant others. Though only six respondents did not live with their spouse, they were supported more from family and friends emotionally. A body of research has shown that
caregiving to family members in the same household is more stressful. Thus those caregivers would need more support. However, the result of this study was contrary to that of previous research. I suspect the subjects in this research may have wanted to live with their care recipients but could not. Therefore they have more negative emotions and get more help from others.
STUDY 2: PARENTAL CAREGIVING

Descriptive Statistics

The parental caregivers consist of 465 respondents. The mean age of parental caregivers was 46.6 years and most of them did not live with their care recipients (N = 383). There were 317 daughters and 148 sons as primary caregivers. The respondents' median income was $24,100.00, mean education was 12.97 years, and mean of health was 4.19. Two hundred and fifty-four parental caregivers were married and 211 caregivers were not married.

Parental caregivers' mean score for depression was 16.12 and the standard deviation was 18.57. The depression scores for parental caregivers were substantially lower than those of spousal caregivers (mean = 19.50) in this sample. The maximum value of the scale is 84. In accordance with Radloff's (1977) criteria, these parental caregivers fall into the category that represents lower than mild depression.

Depression research has documented that late adulthood is commonly characterized as a period of mental distress. Such an idea is regarded as a consequence of aging (Cappeliez, 1993). As indicated in this study, spousal caregivers, who are usually older than parental caregivers, scored higher in depression. However, the CES-D depression instrument used in the present study does not include caregiving-related items, and contains some questions about normal aging process. Therefore, one should be very careful when interpreting these results. To establish a causal relationship among age, caregivers' relationship type with care recipients, and an outcome of
caregiving, a more refined measurement such as caregiving burden scales and a research design are needed. Meanwhile, age did not influence the level of depression in each caregivers' group.

The mean of relationship quality with a parent was 6.01 and the standard deviation was 1.37. The maximum value of the scale is 7. Thus it can be said parental caregivers perceive a high level of relationship quality. More than three quarters of respondents (78.2%) received emotional support from no one or from only one family member or friend. Parental caregivers' mean score for moral commitment to the parent-child relationship was 2.33 and standard deviation was 1.00. The maximum value of the scale was 5.

Correlations

The intercorrelations among the variables are presented in Table 4 along with the variable means and standard deviations.

Insert Table 4 here

Age and health were negatively associated with caregivers' depression. Age was positively related to the quality of the relationship with a parent. Education was positively associated with health and emotional support from significant others. Females received more support than males. Marital status was positively associated with income (recall that married respondents were coded 1 and non married respondents were coded 0).
### Table 4. Variable Intercorrelations, Means, and Standard Deviations (N = 465)

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<td>81535</td>
<td>.932</td>
<td>1.34</td>
<td>1.04</td>
</tr>
</tbody>
</table>

1-tailed Significance * p<.05 ** p<.01 *** p<.001
Health and moral commitment to the parent-child relationship are positively related to each other. Finally, the living arrangement was negatively associated with moral commitment to parent-child relationship (living together = 1, others = 0).

Path Analysis

The path analysis outlined in Chapter III is based on separate regression analysis using the criteria variables of depression and moral commitment to the parent-child relationship in the model. The results of path analysis are presented in Figure 4. Table 5 yields beta weights that provide the direct effects of the variables in the model on depression. As such they can be used to test hypotheses 2, 9, and 15. Due to the poor fit of the data to the path model, full decomposition of the effects was not pursued in this analysis.

---

Insert Figure 4 here

---

Insert Table 5 here

---

Figure 4 illustrated that the direction of direct effects on depression predicted by the model was supported for health (H9) and education (15). Caregivers who have poor health, and fewer educational attainment were more depressed. It is well documented physical health (beta = -.222, p < .01)
Table 5. Causal Model of Depression Among Caregivers: Direct Effects (N = 465)
Standard Regression Coefficients (beta)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-0.027</td>
<td>-0.043</td>
<td>0.130</td>
<td>0.186*</td>
<td>-0.153</td>
</tr>
<tr>
<td>2. Gender</td>
<td>0.060</td>
<td>-</td>
<td>0.257***</td>
<td>0.060</td>
<td>-0.031</td>
</tr>
<tr>
<td>3. Education</td>
<td>0.088</td>
<td>0.053</td>
<td>0.048</td>
<td>0.019</td>
<td>-0.038</td>
</tr>
<tr>
<td>4. Health</td>
<td>0.024</td>
<td>0.021</td>
<td>-0.008</td>
<td>0.175*</td>
<td>-0.222</td>
</tr>
<tr>
<td>5. Living Arrangement</td>
<td>0.015</td>
<td>-0.048</td>
<td>-0.120</td>
<td>-0.227*</td>
<td>-0.051</td>
</tr>
<tr>
<td>6. Marital Status</td>
<td>0.283***</td>
<td>-0.144**</td>
<td>0.017</td>
<td>-0.056</td>
<td>-0.007</td>
</tr>
<tr>
<td>7. Income</td>
<td>0.076</td>
<td>-0.069</td>
<td>0.085</td>
<td></td>
<td>-0.071</td>
</tr>
<tr>
<td>8. Emotional Support</td>
<td></td>
<td>-0.064</td>
<td>-0.066</td>
<td></td>
<td>0.061</td>
</tr>
<tr>
<td>9. Relationship Quality</td>
<td></td>
<td></td>
<td></td>
<td>-0.248*</td>
<td>-0.041</td>
</tr>
<tr>
<td>10. Moral Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.076</td>
</tr>
</tbody>
</table>

R²          | 0.091***| 0.098****| 0.050 | 0.154**| 0.125*             |

* p < .05  ** p < .01  *** p < .001
Figure 4. Path Model 2. Direct Effects: Parental Caregiving

*p < 0.05  **p < 0.01  ***p < 0.001
is an important factor that affects one's level of depression (Vitaliano et al., 1991).

As predicted, education was negatively associated with parental caregivers' depression. I hypothesized respondents' education would have a negative effect on depression, assuming education can secure one's economic status among White respondents. Thus if someone has higher educational attainment, he or she is more likely to seek help from outside and to purchase services to care for the elderly. And hence they perceive less amount of burden from caregiving.

The central thesis of this study has been that commitment contributes to the understanding of caregivers' stress. The effects of moral commitment on depression were statistically insignificant. Moral commitment to the parent-child relationship was positively affected by age (beta = .180, p < .05) and health (beta = .175, p < .05). The older children feel more strongly committed to the parent-child relationship. It can be seen older children have fewer competing demands so that they are able to provide care for their parents.

It is surprising that the living arrangement (beta = -2.27, p < .01) and the quality of the parent-child relationship (beta = -.248, p < .01) were negatively associated with the level of moral commitment of parental caregivers. In other words, adult children who do not live with their parent—care recipient show higher moral commitment to the parent-child relationship than those who live together. It probably is because they do not live in the same household, they may resent having separate households and feel more obligated. Perhaps it is more likely so when an adult child
inevitably lives without the parent and provides care, even if he or she thinks it is ideal to care for their parent in the same residence. Thus the tenth hypothesis was rejected. Adult children who perceive their relationship with parents as good may not feel strongly obligated to care for their parents. Rather, they care for the elderly because they want to based on their good relationship with parent.

Married adult children have higher level of income (beta = .283, p < .001) and less amount of emotional support from others. Females received more emotional support from family members or friends (beta = -.257, p < .001). It is a truism that female caregivers tend to receive more help than males do.
CHAPTER V: DISCUSSION

Conclusions

This study presented a model of relationship quality, commitment to the relationship with care-receivers, and depression among spousal caregivers and parental caregivers. I applied some of the concepts and assumptions of social exchange theory and commitment theory to previously unexplored domains—commitment and caregiving. Previous studies on caregiving did not include the origin of the caregiver’s motivation for providing care to the frail elderly person. This study began the process of combining the social psychological concept of commitment and the gerontological caregiving literature. In addition to the contribution to basic research in caregiving, the utilization of commitment can inform decision makers in the establishment of an intervention program for caregivers.

The path model constructed in this study was an attempt to use already existing survey data and to test hypotheses driven from those two theories. Specifically, I examined the following questions:

a) What are the direct and indirect effects of the quality of the relationship in explaining the caregiver’s depression?

b) To what extent does commitment to the relationship explain the caregiver’s depression?

c) What are the interactive effects of the quality of relationship and commitment with background variables (age, gender, education, health, living arrangement, income, emotional support, and marital status) on the caregiver’s depression?
One important path, the expected effects of commitment on depression, was not statistically significant in either spousal caregiving or parental caregiving. As for spousal caregiving, caregivers' good health and high relationship quality affected caregiver's low depression. In parental caregiving, caregivers with higher educational attainment and better health felt lower level of depression.

The quality of the relationship with spouse or parent was notable for explaining commitment to the relationship. The predicted positive effect of relationship quality with the parent was contradicted by a statistically significant finding of a negative effect. Spousal caregivers' structural commitment to the marital relationship was positively affected by the quality of the relationship with spouse.

My study began with the question, "why do families provide care to their older family members?" Caregiving models have strong theoretical support in the literature on social exchange theory (e.g., Mutran & Reitzes, 1984) but empirical testing was not conducted with commitment theory previously. I attempted to answer that question by applying the concept of repay. Further, I tried to shed light on the process of how caregivers' motivation draws actual caregiving behavior (that is, perceptions of good relationship quality can result from individuals' understanding their reciprocal relationship with the partner). As a consequence, those individuals feel strongly committed to the relationship so that they perceive less stress from caregiving compared with people with lower levels of commitment.

In my study of spousal caregiving, caregivers' perception of the marital quality affects their commitment and depression. Spouses with
higher relationship quality scored high in commitment and low in depression. Therefore, it is reasonable to conclude that the relationship between prior relationship with care-receivers and commitment to the marital relationship in spousal caregiving was supported by exchange theory and commitment theory.

By comparison, these two theories were not well fitted to the parental caregiving model. The perceived quality of parent-child relationship was not attributable to depression. As discussed later, this could be due to the measurement used here or to limitation of the theories.

**Implications for Research**

The commitment variables in the model, moral commitment and structural commitment, have not been commonly found in studies of close relationships. Although structural commitment, which was a constructed variable, had high reliability (alpha = .79), it turned out to be needed a more sophisticated research designs to measure the concept more accurately. Structural commitment to the marital relationship was measured by asking "Even though it may be very unlikely, think for a moment about how various areas of your life might be different if you separated. For each of the following areas, how do you think things would change?"—Standard of living, social life, career opportunities, overall happiness, sex life, and being a parent. Because the respondents' ages ranged from 19 years to 85 years, these six areas of life may not be suited well to all respondents for measuring their structural commitment to the marital relationship. It would be interesting to investigate the respondents' family values, career
orientation, and perspectives on parenthood along with different cohorts as well as perceived possible changes in those six areas of life. If I had information on respondents' needs for either instrumental or emotional help from outside in parenting for example, I think I could have a better understanding of commitment to their marriage.

In addition, I hypothesized the quality of the marital relationship would influence structural commitment. However, spousal caregivers may perceive their commitment differently ever since they have provided care for their spouse. Due to the seriousness of illness or disability of care recipients and the characteristics of caregivers, spousal caregivers for instance, may not think social life or sex life is as important as before.

In the case of parental caregiving, moral commitment was measured by requiring respondents to rate their agreement with the statement, "Children ought to let aging parents live with them when the parents can no longer live by themselves." It seems an emphasis was placed on one possible aspect of caregiving—joint living arrangement. Due to the availability of data in the NSFH, I selected a single item to measure the degree to which adult children feel commitment to the parent-child relationship. The finding must be interpreted cautiously in light of the risk for measurement error in a single-item measure.

The dependent variable in this model, depression, was measured by an abbreviated version of the Center for Epidemiologic Studies Depression Scale (CES-D, Radloff, 1977). The CES-D is one of the most widely used depression scale. And this measure in the NSFH has high internal consistency (alpha = .93). The potential problems of using the scale to
measure caregiver burden for different age groups have been discussed in Chapter IV.

For future research, secondary data analysis in particular, measures should be explored for their usefulness as proxies. If a caregiving burden measurement were used to investigate caregivers' burden, I might have different results to interpret the respondents' hardship. The CES-D scale did not include items asking specifically about caregiving burden. Besides, the mean score of depression for the total sample was 18.08 and the standard deviation was 18.59. The variability of depression in this community sample was relatively low. Perhaps this can explain why the parental caregiving model was not supported by this data. In other words, this depression score range really does not tell much about the level of caregiver stress.

In relation to the issue of measurement, spousal caregivers' structural commitment to marital relationship was operationalized and measured by only one element out of four structural commitment categories defined by Johnson. Thus, it can be said that the structural commitment measure was rather incomplete. Concerning moral commitment of parental caregivers to the relationship with parent, a proxy measure was used.

Finally, when a path model is not supported by the data, the theoretical propositions behind the model should be questioned. The results suggesting that commitment is not a strong predictor of the caregivers' depression in this data set needs further research. It would be better to test the model with a measure of personal commitment to the marital relationship or to the parent-child relationship which was not available in the NSFH. Because the quality of the relationship affects commitment in both
spousal caregiving and parental caregiving in this study, it can be said social exchange theory was applied to this sample. Relationship quality forms the basis of commitment to the relationship.

By looking into moral commitment and structural commitment, I emphasized caregivers' obligatory feelings toward caregiving behavior within an exchange theoretical framework. However, if I could examine personal commitment to the relationship, it would be possible to have a more clear picture of the social psychological dynamics of caregiving. Certainly, family members' motivation for caregiving is not only coming from moralism but shared experience, love, and affection. In this regard, symbolic interactionists' view on close relationship can be applied in explaining caregiving and the well-being of caregivers and care recipients. Individuals may attach different meanings to relationships by perceiving personal interaction such as reciprocity, obligation, and self identity with significant others differently over time.

Implications for Practice

Despite the inability of the commitment variables to explain the variation in caregivers' depression, the findings of this study can be used by intervention providers and policy makers. Specifically, learning the quality of the relationship with the care recipients (Suitor et al., 1995; Williams & Schulz, 1990) and the concepts of commitment to the care-receivers or the relationship are relevant to understanding caregivers' satisfaction, frustration, and anger.
As more knowledge about caregivers' motivation for caring the elderly accumulates, practitioners can help caregivers to alleviate their burden from an interpersonal perspective. If helping professionals can have this kind of information, it will be possible to identify caregivers with diverse needs. Caregivers may have different needs for help from service providers. For instance, depressed caregivers, those who with physical health problems, and unwilling caregivers would benefit from different kinds of assistance.
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APPENDIX A: The National Survey of Families and Households Files
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//* MERGING FILE FOR DISSERTATION
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//SYSIN DD *
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   /FILE=NSFHM4
   /FILE=NSFHE
   /FILE=NSFHC
   /BY MCASEID
   /KEEP=MCASEID M2BP01 M2CP01 M2DP01 M29CP01 M38BP01
   M484 E202A TO E202L E207 E219A0 TO E219E5
   IRTOT2 ICTOT2 COMPLED E701 E703A TO E703D
   E704 E705 E706A TO E706G E707A TO E707D.
   E713A TO E713F E1359E E1304 E1313 E1359K
   E1301 E1310.
SELECT IF (M29CP01 EQ 1 OR M29CP01 EQ 9 OR
   M38BP01 EQ 1 OR M38BP01 EQ 9).
WRITE OUTFILE=OUT/ MCASEID ' ' M2BP01 ' ' M2CP01 ' ' M2DP01 ' ' M29CP01 ' ' M38BP01 ' ' M484 ' ' E202A TO E202L (12(F1.0,1X))
   E207 ' ' E219A0 TO E219E5 (30(F1.0,1X))
   IRTOT2 ' ' ICTOT2 ' ' COMPLED ' '
   E701 ' ' E703A TO E703D (4(F1.0,1X))
   E704 ' ' E705 ' '
   E706A TO E706G (7(F2.0,1X))
   E707A TO E707D (4(F1.0,1X))
   E713A TO E713F (6(F1.0,1X))
   E1359E ' ' E1304 ' ' E1313 ' ' E1359K ' '
   E1301 ' ' E1310.
EXECUTE.
FINISH.
*/
//
VITAE

Education

1995  Ph.D., Adult Development and Aging  
Virginia Polytechnic Institute and State University, Blacksburg, Virginia  
Dissertation: Relationship Quality, Commitment, and Depression among Caregivers

1991  M.A., Family and Child Development  
Ewha Woman's University, Seoul, Korea  
Thesis: The Locus of Control, Perceptions of Stress in Retirement, and Life Satisfaction among Korean Retirees

1989  B.A., Family and Child Development  
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Certifications

1995  Certificate in Gerontology  
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1995  Certificate in Continuing Education  
Virginia Tech, Division of Continuing Education and Development

1992  Certificate in Continuing Education  
Virginia Tech, Division of Continuing Education and Development

Academic Distinctions and Honors

1994  Sigma Phi Omega, Virginia Tech

1993  Award for Contribution to Research, Virginia Tech, Center for Gerontology

Kappa Omicron Nu, Virginia Tech
Publications


Presentation


Research Experience

1994  **Research Assistant**

**Titles:** Nursing Home Migration Patterns
Nursing Home Search and Selection Activities
Differences in Nursing Home Utilization by Race

Participated in: Literature Review, Analysis of Educational Video Tapes

**Supervisor:** William J. McAuley, Ph.D.
Virginia Tech, Center for Gerontology

1992-1993  **Research Assistant**

**Title:** Aging and Long-Term Care in Virginia: An Atlas and Sourcebook

Participated in: Gathering, Organizing, and Entering Data, Designing Tables Charts, and Creating Maps

**Supervisors:** William J. McAuley, Ph.D.
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Virginia Tech, Center for Gerontology
1993  Mentoring Project

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**Work Experience**

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**Student Volunteer** in Session Organizing
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1993  **Internship**

 Participated in: Assistance in Development of
Documentation Tool for Alzheimer's
Clients, Evaluation of Nursing Home Residents for Placement and Total Care Plan, and Marketing Analysis for Homes for Adults
Health Care Medical Facility (HCMF), Blacksburg, Virginia

1993  **Student Staff**
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 Participated in: Organizing the 65th College of Home Science Celebration
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Korean Home Economics Association
Korean Gerontological Society
The Association for Gerontology in Higher Education: Student Representative of Membership Committee
The Gerontological Society of America
The National Council of Family Relations

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Grants

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1994 Scholarship Award and Travel Scholarship
Virginia Tech, Department of Family and Child Development

1993 Scholarship Award and Travel Scholarship
Virginia Tech, Department of Family and Child Development

1992 Scholarship Award
Virginia Tech, Department of Family and Child Development

Yeon Kyung Chee