

HEALTH OF ADULT CAREGIVERS OF THE OLDER PERSON
AND INTERGENERATIONAL FAMILY RELATIONSHIPS

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To the Dean for Graduate Studies and Research:

I am submitting herewith a dissertation written by Sharon Almquist Job, MA, MS, RN entitled: Health of Adult Caregivers of the Older Person and Intergenerational Family Relationships. I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

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DEDICATION

To my son, Brett, who started on this academic venture with me 5 years ago and graduated December 1990 from Boise State University. It has been wonderful sharing your dreams, watching you grow, and feeling such pride in the accomplishments you've made.

To my parents, Clayton and Virginia, who have given me years of support, encouragement, and love. You have always provided a warm and loving family and greeted me with open arms and caring smiles. You gave of yourselves unselfishly to help me raise my son and have always encouraged me to pursue my goals. Thank you.

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ABSTRACT

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Relationships between key concepts in the two generational family system, perceived stress, and the current health of the caregiver of the older person were tested. Additionally, path analysis techniques were used to evaluate the adequacy of the proposed theoretical framework. The theoretical propositions tested were:

1. The greater the intergenerational family relationships of the adult caregiver of the older person, the less the perceived stress in the adult caregiver of the older person.

2. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

3. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

Questionnaires were mailed throughout the United States to caregivers of persons 55 years of age or older. An available sample resulted in 76 questionnaires which were used in the study.

Participants completed four questionnaires: (a) the Demographic Form designed by the researcher; (b) the Personal Authority in the Family System Questionnaire (Bray et al., 1984); (c) the Perceived Stress Questionnaire (Cohen et al., 1983); and (d) the Current Health Self-Report Inventory (Davies & Ware, 1981).

In the study, the alpha coefficients on the Personal Authority in the Family System Questionnaire subscales ranged from .56 to .95. On the Perceived Stress Questionnaire Cronbach's alpha was .89 and on the Current Health Scale Cronbach's alpha was .91.

Utilizing path analysis techniques the major concepts identified were intergenerational family relationships, perceived stress and current health. The two direct paths to current health were spousal intimacy and perceived stress. There were four indirect paths to current health. The indirect paths to current health were:

1. Spousal intimacy through spousal fusion through perceived stress to current health.

2. Spousal intimacy through perceived stress to current health.

3. Intergenerational intimidation through perceived stress to current health.

4. Intergenerational fusion/individuation through perceived stress to current health.

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CHAPTER I

INTRODUCTION

In recent decades, our society has experienced the following trends: the number and proportion of individuals over 55 years of age has increased, the size of the nuclear family has decreased, and advances in health care have enabled people to live longer after the onset of chronic disease and disability. Due to these societal changes, it is projected that the number of older persons requiring assistance in the 21st century will increase (Beck, 1990).

By the year 2000, four-generation families will be the norm. These four-generation families will include great, great grand-parents. In fact today, the average American citizen has more living parents than children and that is changing the family psychologically, emotionally, and financially (Beck, 1990).

As a result of the changes, the number and proportion of family members and friends expected to provide care for the older person will increase. Family members and friends, therefore, have been investigating alternatives to acute care facilities. Some of these alternatives are: providing care at home, placing an individual in a nursing home, or providing care at a distance. In any of these

situations family members and friends are still the primary caregivers. The impact on the individual who assumes the role of primary caregiver can be tremendous. The caregiver experiences new demands and stressors that may affect physical and mental health of the self.

Problem of the Study

The problem of the study was: What are the relationships among intergenerational family relationships, perceived stress, and current health of the adult caregiver of the older person whether the older person resides in the same home or not?

Rationale for the Study

The specific causes of declining health of the adult caregiver of the older person have not been explored. Most of the current literature indicates educating the caregiver will help alleviate the problems caregivers experience. The literature, however, continues to espouse physical and/or psychological health of the caregiver declines when an individual becomes a caregiver of an older person (Chenoweth & Spencer, 1986; Dellasega, 1989; Gallagher, Rose, Rivera, Lovett, & Thompson, 1989; Pratt, Schmall, Wright, & Cleland, 1985).

Cicirelli (1981) asserted in the family caregiving relationship, the parent-adult child relationships are altered in ways that run counter to their historical role performance. Formerly, the relationship was characterized by a certain balance of exchange of services between the generations, but now there is a shift, with adult children providing more help than they receive.

Mancini and Blieszner (1983) reported when middle aged children return to live with parents or when aging parents move in with their middle-aged children there must be adjustments. In fact, the authors wrote the return of middle-aged children to live with parents or moving in with parents is a bigger adjustment problem than when children grow up and leave home. Blieszner (1986) reported family gerontologists have some idea about how things are between parents and their adult children. What they do not know is why things are that way or how they might change.

Couper and Sheehan (1987) reported on 80 professionals attending a workshop for facilitators of caregiver groups. All agreed caregivers need assistance in understanding family dynamics. As the adult child of the elderly parent assumes responsibility for the elderly parent, there is a redistribution of family power. Typically, the elders yield power to the middle generations (Herr & Weakland,

1979). A shift in power and resulting dependency are potential sources of conflict (Couper & Sheehan, 1987). Spark and Brody (1970) stated the problematic interactions in these families are: (a) scapegoating, (b) alliances, (c) symbiotic relationships, and (d) parentification.

Feinauer, Lund, and Miller (1987) pointed out problems between the elderly and their adult children are partly the result of early family interpersonal and/or interactional experiences that were hurtful or unsuccessful. Stated in another way by these authors, the elderly reap the rewards of their earlier parenting styles. Memories of earlier parenting styles can be fortunate or unfortunate as the children will either become close or alienated from their elderly parents. The early family interpersonal and/or interactional experiences are what affect relationships in the family.

There is a transmission of multigenerational issues from generation to generation (Hoopes, 1987). Relationship issues such as commitment and intimacy surface with different meanings and intensity. This occurs when adults experience courtship, friendships, dormitory or apartment living, or when they marry and begin developing their own nuclear family (Martin, 1976). The same issues also appear when an elderly parent moves into the nuclear family home.

A study completed by Feinauer et al. (1987) in multigenerational homes which included an elderly parent repeatedly found communication was a problem. The authors reported the following:

1. Elderly members of the family wished they could express themselves more openly (p. 54).
2. Communication usually did not occur between adult children and their parents (p. 54).
3. Elderly parents reported they desired more open communication (p. 55).
4. The most common problem expressed by the adult children was lack of communication in the family (p. 56).
5. Communication skill building alone does not address the communication issues (p. 57).
6. Grandchildren in a multigenerational home reported the common problem was a lack of communication (p. 57).

The above articles and many others on caregivers of the older person indicated there are psychological issues within the multigenerational families of the caregiver of the older person. Studies focusing on caregiver's intergenerational family relationships, stress experiences, coping patterns, and health status with the circumstances of the parent care encounter are long overdue. For the purpose of the present investigation; therefore,

intergenerational family patterns, perceived stress, and current health were examined.

Theoretical Framework

The study was guided by a theoretical framework that sought to explain the phenomenon of the health of the adult caregiver of the older person. The model evolved from the integration of several ideas originating from family psychology, symbolic interaction theory, psychology and health status. The constructs from these areas were boundaries, role, stress, coping, and health.

Gibbs' (1972) mode of formal theory construction, a deductive process, was used to integrate the components of family psychology, symbolic interaction theory, psychology and health. Gibbs' theory development is inclusive of constructs, concepts and referentials. Hypotheses were derived from the referents. Within each theory there are two distinct but related parts: the intrinsic and extrinsic statements. The intrinsic portion of a theory is comprised of statements in the form of assertions of properties of things. Each of the intrinsic statements is described uniquely (by a symbol, letter, etc.), and is defined by a given type of statement. The extrinsic portion of a theory is composed of the definitions of the

intrinsic terms, formulas, instructions for procedures and specifications as to the type of data.

Components of the theoretical paradigm are unit terms, substantive terms, temporal quantifiers, relational terms and intrinsic statements. Gibbs (1972) defined substantive terms in formal theory construction as follows:

1. Construct--a term which the theorist deems as neither complete nor empirically applicable (pp. 124-125).
2. Concept--a term which is completely defined by the theorist, but is not empirically applicable (p. 128).
3. Referential--an intrinsic term which designates a formula in the extrinsic part of the theory. It is referred to by an acronym consisting of capital letters (p. 130).
4. Referent--a term designating the actual score named by the referential (p. 132).

In addition to the above terms, which are part of the extrinsic theory, there are also temporal quantifiers. According to Gibbs (1972), these temporal quantifiers are needed in each term to make it complete. This is true for constructs, concepts, and referentials. Temporal quantifiers are indicators used with substantive terms to specify points or periods of time. A unit term designates a class of events or things and must be empirically

applicable. Relational terms are "greater . . . greater" and "greater . . . less." In other words, a relational term asserts an empirical relationship between properties of units and signifies the direction of the association between properties.

The relationships between the various substantive terms are designated by intrinsic statements (Gibbs, 1972). Axioms, implied propositions, theorems, postulates, and transformational statements are intrinsic statements. Each intrinsic term is composed of a unit term, substantive terms with their temporal quantifiers, and relational terms. The intrinsic statements, according to Gibbs (1972), are:

1. Axioms--direct relational statements in which the substantive terms are constructs (p. 167).
2. Propositions--direct relational statements in which the substantive terms are concepts (p. 178).
3. Transformational Statements--directional relational statements where the substantive terms are a concept and a referential (p. 180).
4. Postulates--direct relational statements in which the substantive terms are a construct and concept (p. 175).
5. Theorem--derived intrinsic statement in which the substantive terms are referentials (p. 190).

Boundaries

Federn (1952) defined the construct of boundary as the "point beyond which the ego does not extend" (p. 331). The author further stated an individual's boundaries are initially "vague and poor in content" (p. 285) in infancy but develop in clarity and strength with maturity. Boundaries were described by Miller and Rice (1967) as the defining "discontinuity" in time, territory, or technology which constitutes the boundary of a social system "which separates it from its environment" (p. 7).

The relationship between personal boundaries and what happens when an individual joins a group has been investigated by several people. Green and J. Miller in an unpublished manuscript (cited in K. Miller, 1981) indicated immersion of an individual in a social context involves a partial and temporary dissolution of personal boundaries. The immersion can be pleasurably experienced as a sense of connectedness and security. However, the process can also evoke terror and overwhelm completely the individual's sense of self.

The individual has a dilemma around preserving self-boundaries in all groups. Social involvement necessitates the temporary and partial dissolution of self-boundaries for the sake of group cohesiveness and unity. "The degree

to which personal identity is submerged is a conflicted, and threatening dilemma" (Greene, 1979, p. 80). The total fusion of an individual with the social context can evoke primitive anxieties over annihilation of the sense of self. The rigid preservation of self-boundaries may raise survival issues. The survival issues are related to psychological isolation and abandonment (Greene, 1979).

When the social context becomes more ambiguous and undifferentiated, an individual's personal boundaries become more important for maintaining an appropriate and sufficient degree of separation from others to permit orderly transactions. An individual without firm personal boundaries in a relatively unstructured setting may have difficulty discriminating his own values, needs, and wishes from those of the group as a whole and be threatened with a loss of a sense of personal identity (Greene, 1979).

Greene (1979) stated the capacity to experience and represent boundaries, particularly the differentiation of self from non-self, is considered a fundamental skill to be acquired during the first year of life. Developmental arrests at early stages of self-boundary formation are associated with psychotic levels of personality organization (Blatt & Wild, 1976). Individuals with deficiencies in this skill can experience pervasive and

profound effects on intrapsychic and interpersonal processes. The deficiencies can range from total inability to differentiate independent objects as found in schizophrenia to exaggerated efforts to separate objects as seen in paranoia (Greene, 1979).

Blatt and Wild (1976) stated severe boundary disturbances are manifested in object-relations terms by imagery involving either the fusion of discrete and independent objects or the rigid artificial and exaggerated separation of objects. Similar statements are found throughout the literature. The statements have lead the researcher to decide the family of origin, family dynamics, family communication, family power and intimacy, and family negotiation processes within the family all can lead to how an individual's boundaries are formed and can continue to have an influence on an individual's boundaries throughout life.

Boss (1980) presented a model showing how family boundaries change over a lifetime. The author reported family boundaries change and remain ambiguous during the process of reorganization after acquisition or loss of a family member. "The family's perception of who is inside or outside the family system is significantly related to

the interaction within that system as well as between that system and the outside world" (Boss, 1980, p. 445).

Minuchin (1974) asserted the boundaries of the family subsystems must be clear in order for the family to function properly. The boundaries of the subsystem in the family must be defined well enough to allow subsystem members to carry out their functions without undue interference. The boundaries, however, must allow for contact between the subsystem and the family system.

All of this leads to an individual who has formed boundaries beginning as an infant. Each time there is a change in the family, from birth to death, family boundaries change and remain ambiguous during the process of reorganization (Boss, 1980). When an individual becomes a caregiver for an older person, there is a process of reorganization of the individual's boundaries and a reorganization of the family boundaries. Could there be a change in family conflicts if each individual and family had assistance with redefining boundaries? The change in the family is a time of role transition for the caregiver of the older person and also the older person. The assumption is that the individual in role transition, resultant stress, coping strategies, and current health are all related to the caregiver's boundaries and the older

person's boundaries that have been formed over time in the family of origin.

Symbolic Interaction Theory

A concept within symbolic interaction theory is role. One of the variables discussed under role is role transition. Role transition is the ease or difficulty of moving in or out of roles and is the addition of a new role to the role set a person has at a particular stage of life or a deletion of a role from the set (Burr, Leigh, Day, & Constantine, 1979).

Role transition is a middle-range interactionist theory dealing with the ease of moving in and out of social roles. Refinements and additions to the theory were made by Burr (1972). The ease of transition into a role is defined as the degree to which there is freedom from difficulty in activating or terminating a role and the availability of resources to begin or exit from a role. Some transitions are very easy and other transitions are complex and involved and individuals find the transition difficult. The concept of role transition does not include the daily movement from one role to another. Rather, role transition refers to the addition of a new role for a person at a particular stage of life or the deletion of a role (Burr et al., 1979). For example, role transition

occurs when an individual becomes an adult caregiver of an older person.

Many of the 12 propositions listed by Burr et al. (1979) for role transition theory apply to the adult caregiver of the elderly. They are:

1. The more anticipatory socialization about a role, the greater the ease of transition into that role (p. 84).

2. The greater the perceived role strain that results from performing a role, the less ease in making the transition into the role (p. 86).

3. The greater the perceived role strain that results from performing a role, the greater the ease in making the transition out of the role (p. 86).

4. The more important and/or definite the transition procedure into a role, the easier the transition into the role (p. 87).

5. The more important and/or definite the transition procedure out of a role, the easier the transition out of the role (p. 87).

6. The greater the normative change that is perceived in a role transition, the less easy the transition into the role (p. 87).

7. The greater the normative change that is perceived in a role transition, the less easy the transition out of the role (p. 87).

8. The more a role facilitates a person's goal attainment, the easier the transition into the role (p. 87).

9. The more a transition out of a role facilitates a person's goal attainment, the easier the transition out of the role (p. 88).

10. When a role prevents the attainment of a goal, the longer a person expects to be in a role, the greater the influence that variation in goal facilitation has on the ease of transitions into the roles (the stronger the relationship in proposition 8) (p. 88).

11. When a role prevents the attainment of goals, the more there are substitute gratifications, the lower the influence of goals facilitation on the ease of transition into roles (the relationship in proposition 8) (p. 88).

12. The more valued the goals, the greater the influence that occurs in propositions 8 and 9 (p. 88).

Stress

Meichenbaum (1983) discussed in his book, Coping with Stress, the transactional view of stress. The author described "transactional" by saying the word indicates

stress is influenced both by the individual and by the environment. A series of events is not what causes stress, rather it is how the person views such events. Stress resides neither in the situation nor in the person, but depends on the transaction of the individual in the situation. In other words, there is no predictable pattern of reaction, rather each person helps to define which situations he or she will view as stressful.

Meichenbaum (1983) used Lazarus' (1966) ideas for appraising stress. The judgement that a particular person-environment relationship is stressful is dependent on the process of cognitive appraisal. Lazarus (1966) and Lazarus and Folkman (1986) defined two kinds of appraisal: primary and secondary. They are concerned with evaluative issues, not the sequence of appraisal. Primary appraisal process determines the coping approach chosen. Secondary appraisal involves the assessment of possible responses to behaviors. Finally, coping behavior occurs (Lazarus & Folkman, 1984).

Primary appraisal is a subconscious process which is made at an automatic or unconscious level. In primary appraisal the individual makes the judgement that an encounter is relevant or irrelevant, a challenge or threat, potentially beneficial or harmful. The degree of stress reaction is dependent on whether an individual views

something as a threat, harm/loss, or a challenge (Folkman, 1984; Lazarus & Folkman, 1984).

In harm/loss some damage to the person has already been sustained. The harm/loss can include injury, illness, damage to self-esteem or social esteem, or harm to or loss of relationships. Threat concerns harms or losses that have not yet taken place, but are anticipated. A threat can provide for anticipatory coping. Challenge also allows for mobilization of coping efforts. Challenge, however, differs from threat in the potential for gain or growth inherent in the encounter and evokes more pleasurable emotions. Threat and challenge can occur simultaneously, but must be considered separately. Challenge, as opposed to threat, has important implications for adaptation (Long, 1987). "Challenged persons are more likely to have better morale because to be challenged means feeling positive about demanding encounters, as reflected in the pleasurable emotions accompanying the challenge" (Lazarus & Folkman, 1984, p. 34).

The secondary appraisal process refers to the judgement about the adequacy of the forms of coping available for mastering the demands of a specific situation (Lazarus, 1972; Lazarus & Folkman, 1986). The secondary appraisal process becomes critical when there is a primary

appraisal of harm/loss, threat or challenge (Folkman, 1984; Lazarus & Folkman, 1984). Secondary appraisals of coping options interact with primary appraisals to shape the degree of stress and the strength and quality of the emotional reaction.

The secondary appraisal process involves evaluating coping strategies in terms of their cost and the probability of their success. The process is influenced by how successful the individual has been in the past in such situations, how generally self-confident he is, and the material resources available (Folkman, 1984; Lazarus & Folkman, 1984). Frequently, an individual's attempts to cope often change the situation and further reappraisal is required and the process continues (Meichenbaum, 1983).

Theory of Coping

Lazarus (1966) indicated the visible reaction to a stressor is determined by a person's evaluation of the stressor and once an individual appraises something as stressful a specific coping process is selected. Pearlin and Schooler (1978) defined coping as "things people do to avoid being harmed by life strains" (p. 2). Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as

taxing or exceeding the resources of the person" (p. 141).

Coping serves two main functions:

1. Manage or alter the person-environment relationship which is the source of the stress.
2. Regulate emotional responses to the problem (Lazarus, 1966).

Folkman and Lazarus (1980) titled these two functions as emotion-focused coping and problem-focused coping. Problem-focused coping is more likely to occur when the appraisal results in the perception that the problem is amenable to change. Problem-focused coping is characterized by some action directed at the situation, such as to remove or modify the stressor. The problem-focused behaviors are used to control the troubled person-environment relationship and can be directed at the environment or at oneself. These behaviors include problem-solving, decision-making, and direct action.

Emotion-focused coping is characterized by intrapsychic processes such as denial and avoidance. The denial and avoidance is a way of reducing the emotional influence of the stressful situation (Lazarus & Folkman, 1984). Lazarus and Folkman (1984) maintain emotion-focused coping is more likely to occur when the resultant appraisal is that nothing can be done about the problem. The way a

person copes is also determined in part, by other resources which include health and energy, existential beliefs, commitments, problem-solving skills, social support, and material resources.

Lazarus and Folkman (1984) reported these two methods can either facilitate or impede each other or they can occur concurrently and influence each other. Individuals who have experienced effective coping behaviors usually use a combination of the two strategies. For example, a frail, sick, tired, or debilitated person has less energy to expend on coping than a healthy, robust person. Thus, health and energy facilitate coping efforts--it is easier to cope when one is feeling well (Lazarus & Folkman, 1984).

In summary, any effort to manage a situation, a feeling, thought, or action is considered to be coping. Other factors associated with the coping process such as psychological, contextual, and situation conditions are interrelated, and their impact can be identified at different points in time in the process (Lazarus & Folkman, 1984). How individuals cope with stress, not stress per se, is what influences their psychological well-being, social functioning, and somatic health (Folkman & Lazarus, 1988).

Health

The concept of health, for centuries, was considered as absence of disease (Newman, 1983). The definition of health has been an evolving process. The World Health Organization (WHO) defined health as not merely the absence of disease but a "state of complete physical, mental and social well being." The definition by WHO prompted further definitions. Dunn (1959) was the first to use the term high-level wellness and portrayed health on a continuum from wellness to illness. Later, Dunn (1973) defined health as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable" (p. 4). Characterization of health as an adaptive potential of an individual was put forth by Dubos in 1965. Dubos (1965) defined health and disease as "expressions of the success or failure experienced by the organism in its efforts to respond adoptively to environmental change" (p. xvii).

Newman (1983) indicated the prevailing views of health might be categorized as ranging from the absence of disease, at one end of the spectrum, to successful adaptation to disease or disability, and beyond that to a positive state of well-being. Health is viewed as a

positive state to be desired and illness as a negative state.

Newman (1979) wrote in her book there is another view of health. Health "encompasses disease as a manifestation of the pattern of the person and thereby a clue that can be used in understanding the pattern" (p. 163). Newman's view was based on Hegel's dialectic process of the fusion of opposites--one point of view fuses with the opposite point of view and brings forth a new, synthesized view. Newman (1983) stated the concept of disease fuses with its opposite, nondisease, and brings forth a new concept health. "This synthesized view of health incorporates disease as a meaningful aspect of the total" (Newman, 1983, p. 163).

Newman (1986) new paradigm of health is based on health as the undivided wholeness of the person in interaction with the environment. Recognition of health is directed toward identifying a pattern of interaction and accepting it as a process of evolving consciousness. "Disease is regarded as a manifestation of that pattern, not an entity external to it" (Newman, 1986, p. 88).

Four concepts have been identified in Newman's theory. They are: movement, time, space, and consciousness. The greatest emphasis, however, is placed by Newman on

consciousness. Newman (1986) stated, "The crucial task is to be able to see the concepts of movement-space-time in relation to each other, all at once, as patterns of evolving consciousness" (p. 48). Health is a process which is an evolution of patterning with paradoxes, contradictions, and ambiguities continually being synthesized into insights that lead to an ever-expanding consciousness. Consciousness is defined as "the informational capacity of the system: the capacity of the system to interact with its environment" (Newman, 1986, p. 33). This process of evolution of consciousness is also the process of health (Newman, 1986).

The concepts of time, space, and movement are defined as follows. Time is simply the experience of time. Movement is defined as "an essential property of matter" incorporating both "awareness of self and a means of communication" (Newman, 1979, p. 62). Space is defined in numerous ways: three dimensional space, life space, personal space, and inner space.

Newman (1986) discussed patterning of individuals, families, and communities. Expanding consciousness occurs as a process of pattern recognition (insights) following a synthesis of contradictory events or disturbances in the flow of daily living (Newman, 1986).

In the old way of identifying health, individuals looked at what was wrong with the system (individual, family, or community) and fixed it. The task of the new paradigm is to look at relationships and recognize the pattern and relate to it in an authentic way. This relational paradigm of health is patterned, acausal, probabilistic, unitary, intuitive, qualitative, and innovative (Newman, 1986). The patterns of interaction of person-environment, therefore, constitute health.

In Newman's (1986) view of health, the theory is discussed in relationship to individuals, families, and communities. Initially, there is a pattern of consciousness that is the person interacting within the pattern of consciousness that is the family and physical surroundings. The person also interacts within a pattern that is the person's larger environmental affiliations, such as work or school, and then within the pattern of the local community and continuing on within the pattern of the universe (Newman, 1986).

Merging of Theories

Cohen and Williamson (1988) indicated stressful events are assumed to increase the risk of disease when the events are appraised as threatening or demanding and coping resources are judged as insufficient to address that threat

or demand. In development of the model, specific components of family psychology, symbolic interaction theory, psychology, and health were united to form the interrelationships that explain the phenomenon of the current health of the adult caregiver of the older person.

Model of Influences on the Health of Caregivers of the Older Person

The merging of theories is represented in four figures. Figure 1 represents a conceptual map of the interrelationships of the constructs in the theoretical model developed. Figure 2 depicts the theoretical model developed according to Gibbs' (1972) paradigm. Figure 3 depicts the subscales of the Personal Authority in the Family System (PAFS) questionnaire. Figure 4 shows the subscales of the Ways of Coping questionnaire. The subscales from Figure 4 were not be included in the current study. The intrinsic statements derived from Figure 2, according to Gibbs (1972), are:

Axioms

1. The greater the boundary definiteness of the adult caregiver of the older person, the greater the decrease in the stress of the adult caregiver of the older person. (Ax 1)

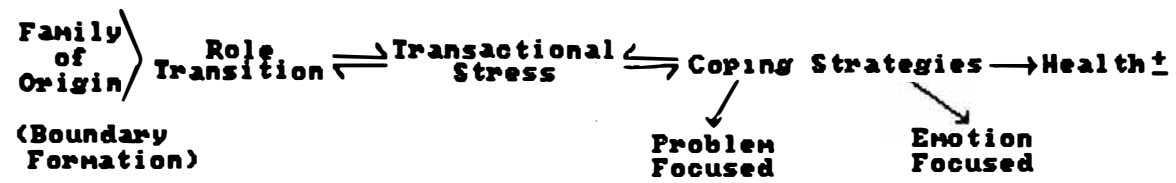


Figure 1. Conceptual map of the interrelationships of the constructs.

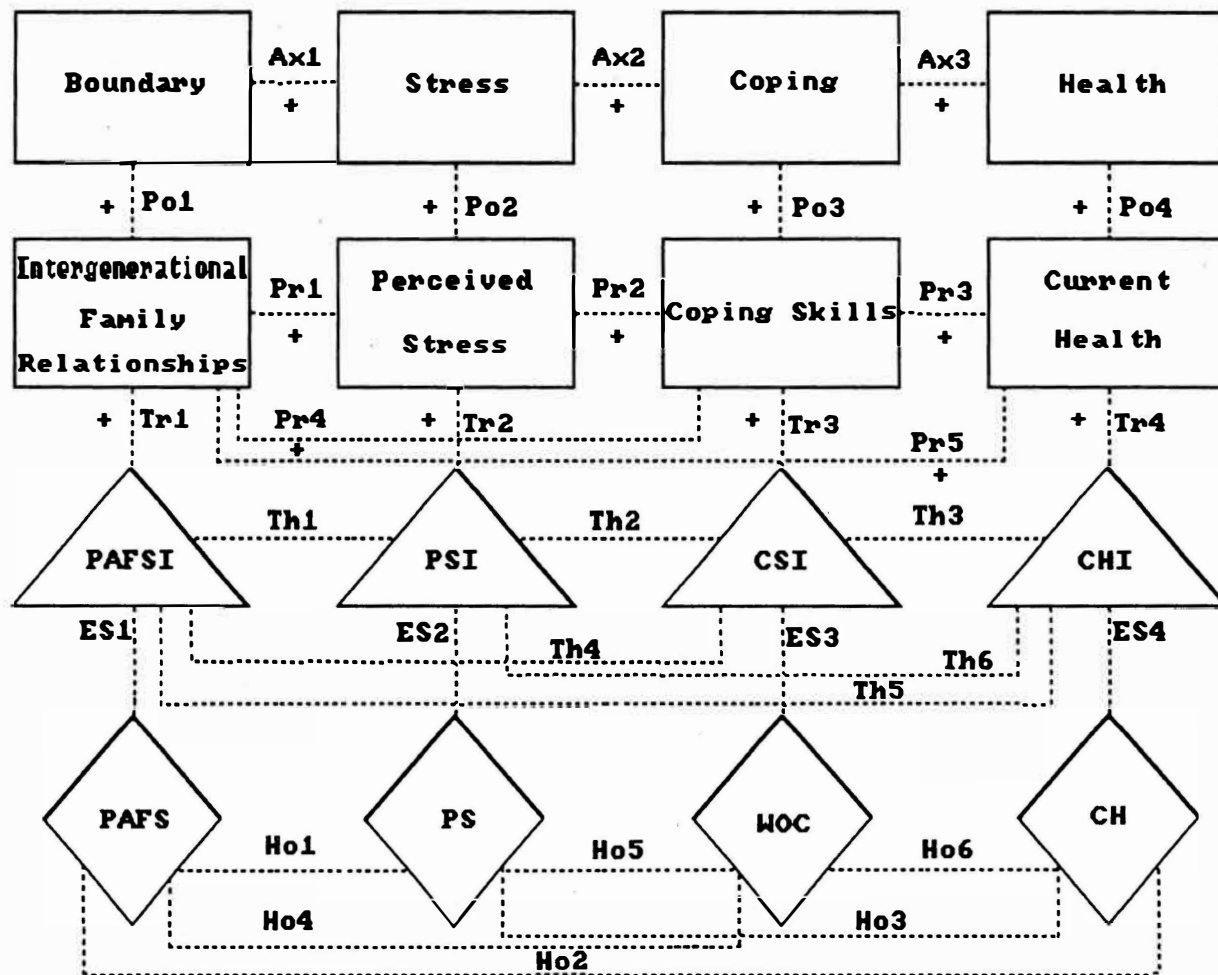


Figure 2. Model of influences on caregivers of older persons developed according to Gibbs' (1972) paradigm.

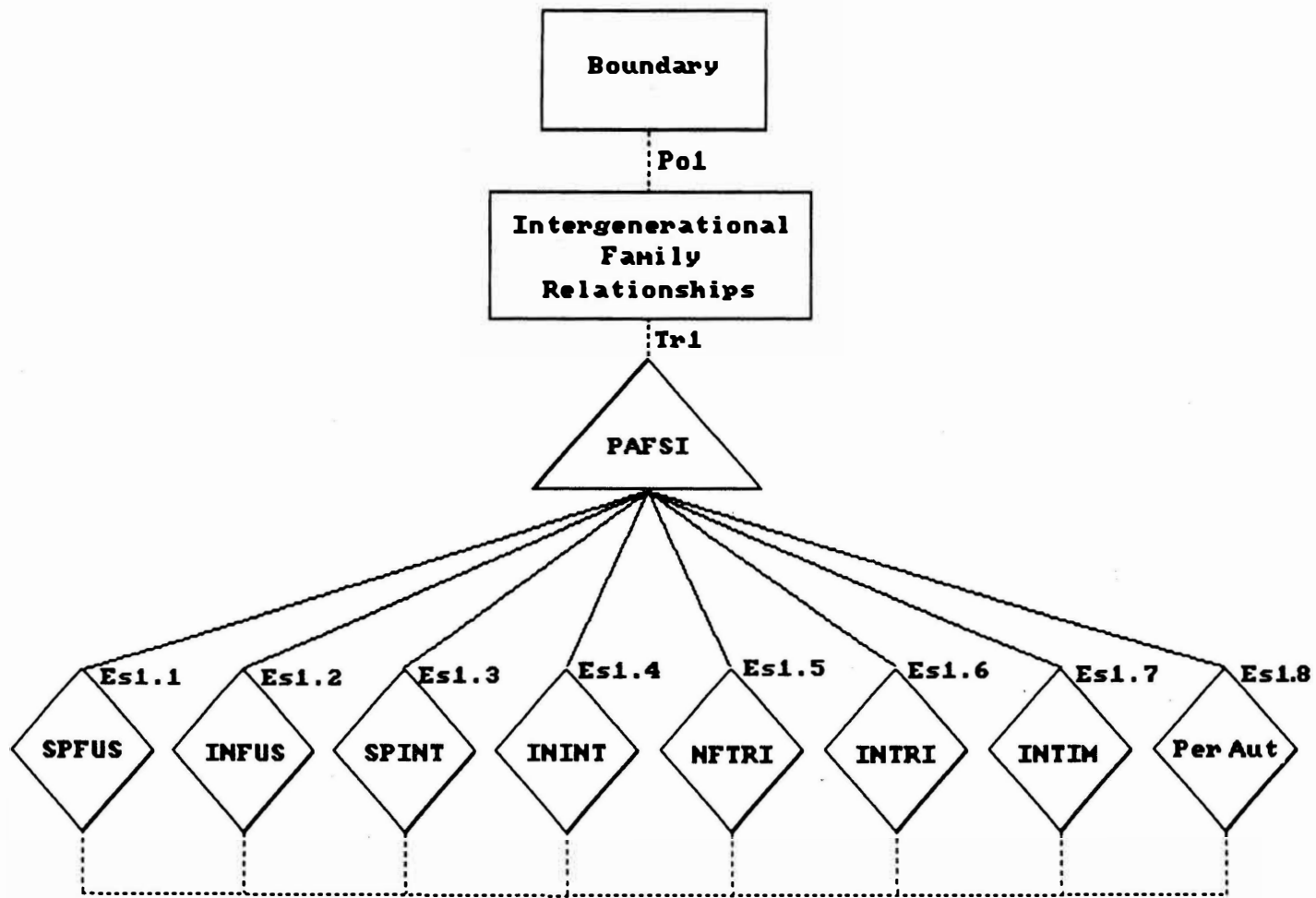


Figure 3. Subscales of personal authority in the Family System Questionnaire.

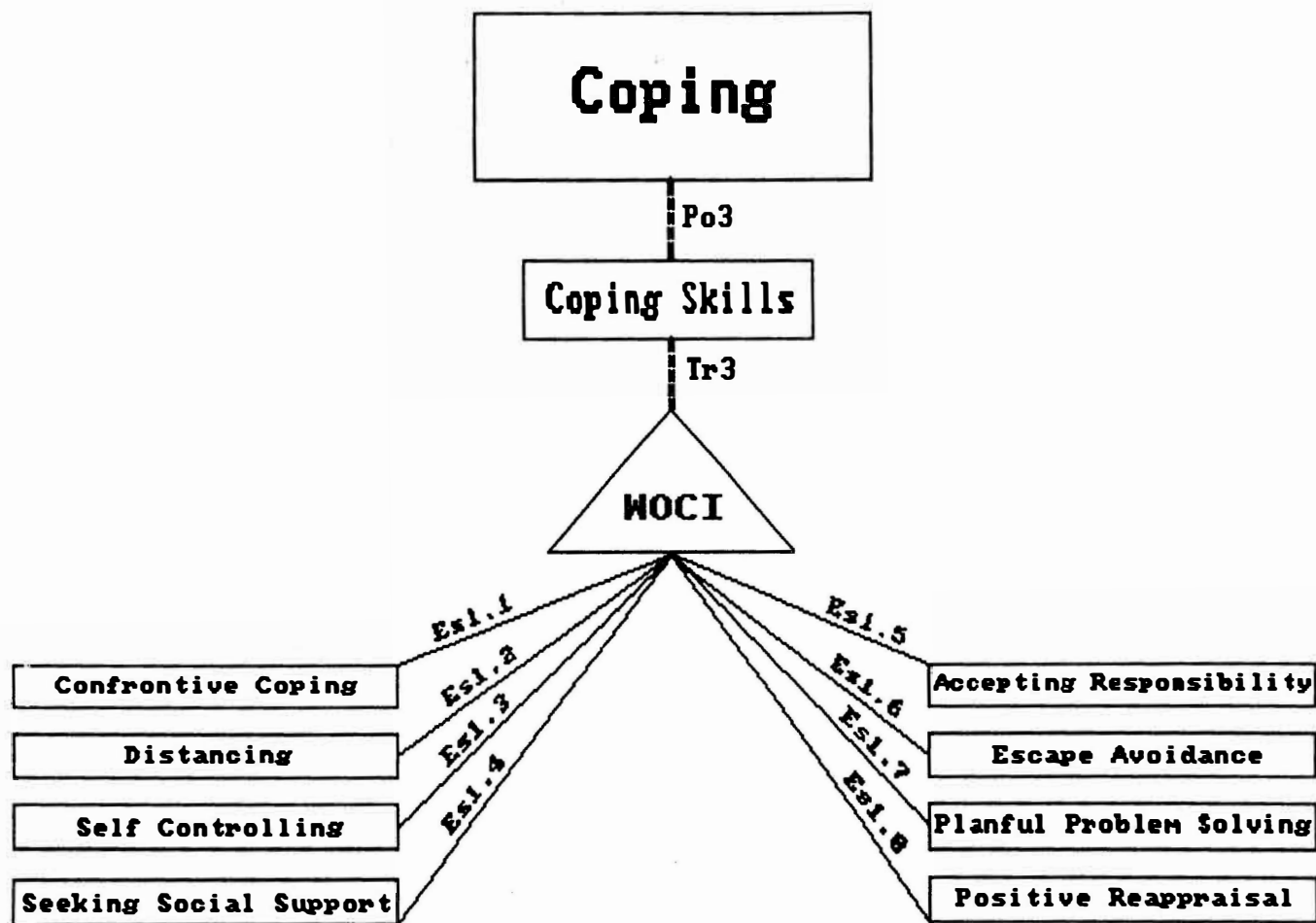


Figure 4. Subscales of Ways of Coping Questionnaire.

2. The greater the decrease in stress of the adult caregiver of the older person, the greater effectiveness of coping of the adult caregiver of the older person. (Ax 2)

3. The greater the effectiveness of coping by the adult caregiver of the older person, the greater the health of the adult caregiver of the older person. (Ax 3)

Postulates

1. The greater the boundary definiteness of the adult caregiver of the older person, the greater the intergenerational family relationships for the adult caregiver of the older person. (Po 1)

2. The greater the decrease in the stress of the adult caregiver of the older person, the greater the decrease of perceived stress by the adult caregiver of the older person. (Po 2)

3. The greater the coping of the adult caregiver of the older person, the greater the coping skills of the adult caregiver of the older person. (Po 3)

4. The greater the health of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Po 4)

Propositions

1. The greater the intergenerational family relationships of the adult caregiver of the older person, the less the perceived stress by the adult caregiver of the older person. (Pr 1)

2. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the coping skills of the adult caregiver of the older person. (Pr 2)

3. The greater the coping skills of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Pr 3)

4. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the coping skills of the adult caregiver of the older person. (Pr 4)

5. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Pr 5)

6. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Pr 6)

Transformational Statements

1. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the PAFSI by the adult caregiver of the older person (Tr 1)

2. The greater the perceived stress by the adult caregiver of the older person, the greater the PSI by the adult caregiver of the older person. (Tr 2)

3. The greater the coping skills by the adult caregiver of the older person, the greater the CSI by the adult caregiver of the older person. (Tr 4)

4. The greater the current health of the adult caregiver of the older person, the greater the CHI by the adult caregiver of the older person. (Tr 5)

Theorem

1. The greater the PAFSI by the adult caregiver of the older person, the greater the decrease of the PSI by the adult caregiver of the older person. (Th 1)

2. The greater the decrease of PSI by the adult caregiver of the older person, the greater the CSI by the adult caregiver of the older person. (Th 2)

3. The greater the CSI by the adult caregiver of the older person, the greater the CHI by the adult caregiver of the older person. (Th 3)

4. The greater the PAFSI by the adult caregiver of the older person, the greater the CHI by the adult caregiver of the older person. (TH 4)

5. The greater the PAFSI by the adult caregiver of the older person, the greater the CHI by the adult caregiver of the older person. (Th 5)

6. The greater the decrease of the PSI by the adult caregiver of the elderly, the greater the CHI by the adult caregiver of the older person. (Th 6)

Definition of Constructs

The constructs essential to the model and their definitions are:

1. Boundary--An imaginary line which separates an individual system from other systems in the environment.

2. Stress--An imbalance between environmental demand and the response capability of the individual (Meichenbaum, 1983).

3. Coping--The cognitive and behavioral efforts to master conditions of harm; threat, or challenge when a routine or automatic response is neither readily available nor a neutral part of the individual's repertoire (Lazarus & Folkman, 1984).

4. Health--The process of health is the process of the evaluation of the consciousness. Health is the

undivided wholeness of the individual in interaction with the environment (Newman, 1986).

Definition of Concepts

The concepts of the model are defined and their referential formulas specified according to Gibbs (1972) as follows:

1. Intergenerational Family Relationships (IFR)--Relational patterns that are learned and passed down across generations and current individual and family behavior is a result of these patterns (Bray & Williamson, 1987).

Referential Formula: $IFR = \underline{f}(PAFSI)$, where PAFSI = Personal Authority in the Family System Index.

2. Perceived Stress (PS)--The degree to which an individual determines events are stressful (Cohen, Kamarck, & Mermelstein, 1983). Referential Formula: $\underline{PS} = \underline{f}(PSI)$, where PSI = Perceived Stress Index.

3. Coping Skills (CS)--Techniques used by an individual for dealing with the symptoms of stress (not to be confused with defense mechanisms used in the mental health literature). Referential Formula: $\underline{CS} = \underline{f}(CSI)$, where CSI = coping skills index.

4. Current Health: (CH)--An individual's current self-perception of own health. Referential formula: $CH = \underline{f}(CHI)$, where CHI = current health index.

Unit of Analysis

The unit of analysis in the model is the individual at any point in the life cycle in any sociocultural environment. The unit term in the present study is the individual who is or has been a caregiver for an older person for at least 1 month.

Temporal Quantifier

The time units of the model symbolized in Figure 2 are:

- oTo The point in time that the adult caregiver has cared for an older person for at least 1 month whether they resided in the same home or not.

Propositions to be Tested

Multiple relational statements in the form of axioms, postulates, propositions, transformational statements, theorems, and hypotheses can be derived from the model for testing purposes. The propositions that will be tested in the study represent Theorems 1, 5, and 6 depicted in Figure 2, as follows:

The propositions tested in this study were:

1. The greater the intergenerational family relationships of the adult caregiver of the older person,

the less the perceived stress by the adult caregiver of the older person. (Pr 1)

2. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Pr 5)

3. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person. (Pr 6)

Assumptions

The assumptions of the model that served as assumptions for the present study were:

1. Intergenerational family relationships can influence an individual's stress level and coping behaviors (Bray & Williamson, 1987).

2. Perceived stress is a universal human phenomenon characterized by continuous exchange of demands between the individual and the environment (Cohen, Kamarck, & Mermelstein, 1983).

3. Perceived stress by the individual affects the health status of the individual (Cohen et al., 1983; Killeen, 1986).

4. Every individual establishes boundaries (Boss, 1980; Greene, 1979).

5. Every caregiver of an older person has a potential for experiencing deteriorating health (Horowitz & Dobroff, 1982).

6. A single individual assumes the primary responsibility for the care of the older person (Goldstein, Regnery, & Wellin, 1981).

Hypotheses

The null hypotheses tested in the present study were:

1. There is no statistical relationship between the Personal Authority in the Family System (PAFS) score and Perceived Stress (PS) score of adult caregivers of the older person. (Ho 1)

1.1 There is no statistical relationship between the PS score in adult caregivers of the older person and the Spousal Fusion/Individuation (SPFUS) subscale score on the PAFS.

1.2 There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Fusion/Individuation (INFUS) subscale score on the PAFS.

1.3 There is no statistical relationship between the PS score in adult caregivers of the older person and the Spousal Intimacy (SPINT) subscale score on the PAFS.

1.4 There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Intimacy (ININT) subscale score on the PAFS.

1.5 There is no statistical relationship between the PS score in adult caregivers of the older person and the Nuclear Family Triangulation (NFTRI) subscale score on the PAFS.

1.6 There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Triangulation (INTRI) subscale score on the PAFS.

1.7 There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Intimidation (INTIM) subscale score on the PAFS.

1.8 There is no statistical relationship between the PS score in adult caregivers of the older person and the Personal Authority (PerAut) subscale score on the PAFS.

2. There is no statistical relationship between the PAFS score and the current health (CH) score in adult caregivers of the older person.

2.1 There is no statistical relationship between the CH score and the SPFUS subscale score on the PAFS.

2.2 There is no statistical relationship between the CH score and the (INFUS) subscale score on the PAFS.

2.3 There is no statistical relationship between the CH score and the SPINT subscale score on the PAFS.

2.4 There is no statistical relationship between the CH score and the (ININT) subscale score on the PAFS.

2.5 There is no statistical relationship between the CH score and the (NFTRI) subscale score on the PAFS.

2.6 There is no statistical relationship between the CH score and the (INTRI) subscale score on the PAFS.

2.7 There is no statistical relationship between the CH score and the (INTIM) subscale score on the PAFS.

2.8 There is no statistical relationship between the CH score and the (PerAut) subscale score on the PAFS.

3. There is no statistical relationship between the PS score and CH score in adult caregivers of the older person.

4. There is no statistical multiple relationship between selected demographic variables and the current health of the caregiver.

Definition of Terms

The following terms were defined for the purpose of the study:

1. Caregiver of the Older Person--
 - a. Theoretical--the person who is responsible for providing or coordinating the resources required by an older person.
 - b. Operational--a spouse, son, daughter, neighbor, friend, or relative who provides informal, unpaid care to an older person as indicated on the demographic sheet.
2. Personal Authority in the Family System (PAFS, version A)--
 - a. Theoretical--PAFS is a pattern of abilities to do the following:
 - (1) To order and direct one's own thoughts and opinions.
 - (2) To choose to express or not to express one's thoughts and opinions, regardless of social pressures.

- (3) To make and respect one's personal judgments, to the point of regarding these judgments as justification for action.
- (4) To take responsibility for the totality of one's experience in life.
- (5) To initiate or to receive (or to decline to receive) intimacy voluntarily, in conjunction with the ability to establish clear boundaries to the self--at will.
- (6) To experience and relate to all other persons without exception, including "former parents," as peers in the experience of being human (Williamson, 1982, p. 311).

b. Operational--a self-report questionnaire designed to assess intergenerational processes in the three-generational family system.

3. Perceived Stress Questionnaire (PS)

- a. Theoretical--perceived stress is a particular relationship between the person and the environment that is appraised as taxing or exceeding the individual's resources.

- b. Operational--a self-report scale to measure the degree to which situations in one's life are appraised as stressful (Cohen et al., 1983).
- 4. Current Health Questionnaire (CH)
 - a. Theoretical--caregiver's self-perception of his/her current health status.
 - b. Operational--a self-report scale that measures the individual's perception of current health status (Davies, Sherbourne, Peterson, & Ware, 1988; Ware, 1976).
- 5. Older Person
 - a. Theoretical--an individual 55 years old and older who has limitations on abilities to meet physical, psychological, financial, and/or social needs of the self.
 - b. Operational--an individual 55 years old and older who is the recipient of caregiver actions from a spouse, son, daughter, neighbor, friend, or relative.

Limitations

The study had the following limitations:

1. Use of a nonprobability sample limited the generalizability of the results to the population studied.
2. Self-report measures are restricted to how familiar the subjects are with the situation and to what extent they are willing to divulge the requested information (Nunnally, 1978).
3. The length of the questionnaire may eliminate participation of some caregivers due to their already over extended time commitments.

Summary

The basis for the study has been presented in Chapter One. The Chapter includes the statement of the problem, the purpose, the rationale for conducting the study, the theoretical framework that guided the investigation, the assumptions, propositions, hypotheses, limitations, and definitions.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of the study was to investigate the relationships among intergenerational family relationships, level of perceived stress, and the current health of the adult caregiver of the older person. A review of the literature related to the study discusses intergenerational family relationships, families of caregivers of the older person, stress of the caregiver of the older person, coping behaviors of the caregiver of the older person, and health of the caregiver of the older person.

Intergenerational Family Relationships

Due to changes in our society the family of the 21st century will be different. Beck (1990) indicated by 2030 the entire baby boom population will have turned 65 years old. The author's belief is no other change will have a more profound effect on the American Society during the 21st century. There will be three and four generations living in the same home giving society multigenerational households. Living in multigenerational family homes will be adult children caring for their older parent or parents and the children of the adult caregiver. Due to some of these very rapidly changing statistics, it is important to

begin looking at intergenerational family relationships. The relationships, however, cannot be discussed without an understanding of the concept of family of origin.

Family of origin refers to the family in which an individual was born and raised (Gerson & Bersky, 1979). The individual had his or her beginnings physiologically, psychologically, and emotionally in the family of origin; the family of origin continues to play an important role in adult years (Hovestadt, Anderson, Piercy, Cochran, & Fine, 1985). Williamson (1978) stated relatively few people are aware of how their behavior continues to be influenced and controlled by the unachieved goals and the unresolved problems of the parental and the grandparental generations. Herr and Weakland (1979) reported both adolescence and old age are characterized by dramatic changes in strength and power, as well as conflict with the middle generation. Because of these two problems both generations often serve as scapegoats.

Bray and Williamson (1987) indicated there are several theoretical and therapeutic systems within the multigenerational, intergenerational, or transgenerational perspectives which share common bases in understanding families across several generations of family evolution. The terms multigenerational, intergenerational, or

transgenerational tend to be confusing. Hoopes (1987) attempted to clarify the terms in an article published in The American Journal of Family Therapy. Multigenerational refers to more than two generations; the term refers to an entity, a suprasystem of family members. The term is in the same classification as nuclear family and extended family. Intergenerational means within, between, or mutually occurring within two or more generations. Transgenerational means through or across generations and implies movement of something. Therefore, the terms intergenerational and transgenerational serve the purpose for describing transmissions within the multigenerational system (Hoopes, 1987).

Ingersoll-Dayton, Arndt, and Stevens (1988) conducted a study by looking at the theories of five intergenerational practitioners. The idea of involving grandparents in family therapy is an important concept because the number of multigenerational families is rapidly increasing. Children today, because of increased life expectancy, have more grandparents and great-grandparents than ever before in past decades (Butler & Lewis, 1988). Few attempts, however, have been made to include older adults in family therapy despite the growing prevalence of multigenerational homes.

The project by Ingersoll-Dayton et al. (1988) examined the extent to which two different intergenerational approaches differed in process and outcome from a traditional two-generational approach that included only youth and their parents. Specifically, the two intergenerational approaches were: (a) encouraging contact with the older generation outside sessions as reflected by the work of Bowen (1985), and (b) including the older generation in sessions as reflected by the work of Boszormenyi-Nagy and Spark (1973), Framo (1976), and Napier and Whitaker (1980).

The actual study was limited to three generation families who were living in the metropolitan area of Portland, Oregon. Therapists were trained by a social worker on intergenerational theory, guidance on the use of the genogram, and demonstrations of work with three generations. Each client family was randomly assigned to a treatment approach and a therapist (Ingersoll-Dayton et al., 1988). A total of 43 families were involved in the project. Thirteen families were assigned to approach one--two--generational family therapy where only youth and their parents were included. Fifteen families were assigned to approach two--intergenerational therapy with grandparents included outside the session. Participants were encouraged

to deal with family of origin issues with parents and siblings outside of session. Finally, 15 families were assigned to approach three--intergenerational therapy with grandparents included in the session.

Based on therapists' comments, the "outside of session" approach resulted in more uniformly positive outcomes for family members than the "in session" approach. Ingersoll-Dayton et al. (1988) indicated the out of session approach gave family members more control over the pacing of the contact with the oldest generation. The authors further concluded the in session approach dramatically opened channels of communication in several families; however, the in session approach also resulted in discomfort and awkwardness for other families. Family members were not as open with one another when the grandparents were present.

The therapists involved in the project developed some hypotheses for future intergenerational research. Ingersoll-Dayton et al. (1988) believe the following two hypotheses merit further consideration and research. The first hypothesis proposed that intergenerational family therapy with grandparents included outside the session is appropriate for: (a) blended families and (b) families with unclear boundaries. The second hypothesis stated

intergenerational family therapy with grandparents included in the session is appropriate for: (a) families whose grandparent(s) live in the same household and (b) families with deeply felt, unexplored intergenerational assumptions (pp. 288-289).

A basic premise of Bray and Williamson (1987) is relational patterns are learned and passed down across generations and current individual and family behavior is a result of these patterns. Bray and Williamson's (1986) belief is the intergenerational point of view focuses somewhat narrowly on two generations, namely adults in the 3rd to 5th decades of life and their older parents. The political and relational patterns existing between the adult and the older parents is the focus of attention, the behavior that needs to change, and is consequently the point of intervention.

Williamson and Bray (1988) argued there are two dominant psychosocial issues of adulthood. The first is how to leave the parental home psychologically. For an adult to leave the parental home psychologically, the individual must get control over his own destiny and get clear title to his own life. Effective resolutions result in recovery of aspects of the self which have been loaned around various significant relationships, within the three

generational individual/family life cycle (Bray & Williamson, 1987). A recovery of self will offer an individual a way of dealing with fusion and triangulation (Bowen, 1978).

The second question is how to leave the parental home psychologically, and at the same time stay connected to and intimate with the former parents (Bray & Williamson, 1987). An individual's goal is to be able to take a "strong I position" (Bowen, 1978), and at the same time weave an intimate relational "pattern that connects" (Bateson, 1972). The question Williamson and Bray (1988) asked is how does one terminate transgenerational loyalties when the person is crippling the new self and simultaneously embracing one's own roots and biopsychosocial heritage? In other words, the dilemma is how to embrace and assimilate one's history and heritage and simultaneously transcend the emotionality of the family. The fact is to be free from the dominating indwelling of any foreign body from a previous generation, termination of transgenerational loyalties is necessary in order to create a pleasing and productive personal life.

During the process of leaving home psychologically, if a parent is stricken with dementia and becomes emotionally unavailable for renegotiation, the individual in the middle

generation could become "stuck." The individual in the middle generation is still wanting the parent to be the source of nurturance, or to be available to rectify past injustices, unresolved conflicts, and disappointments. When an adult child must care for a parent toward whom there is ambivalent feelings, the adult child may experience guilt, inability to make needed decisions, low morale and depression, marital problems, and increased somatic complaints (Pett, Caserta, Hutton, & Lund, 1988). If the adult child has been able to differentiate, the adult child is able to function optimally around others without feeling responsible for them, controlled by them, or impaired by them (Bray & Williamson, 1987).

Several multigenerational family theorists have developed key concepts for describing family relationships, family process and development, and transmission of interactional patterns across generations (Bray & Williamson, 1987). The key concepts are differentiation of self, triangulation, covert loyalties, unresolved grief reactions, intimacy, and personal authority. The above listed concepts are the key concepts to assess in intergenerational family relationships (Bray & Williamson, 1987).

Opposite of differentiation of self is fusion. Fusion refers to how emotionally struck together persons are in a relationship. Persons with a high level of fusion do not have a clear sense of self as individuals and operate as emotionally reactive. These emotionally reactive persons are more likely to develop symptoms of stress. The level of fusion or degree of fusion reflects the degree of unresolved emotional attachment to the parental family. A fused or undifferentiated person functions in a dependent, emotionally reflexive, semi-automatic, or irrational manner in relationships (Bray & Williamson, 1987).

Bowen (1985) proposed a two-person system or dyad is unstable because of the fusion between individuals in relationships. Individuals deal with the instability by triangulating in a third person to decrease the anxiety or stress in the dyad. Specifically, two people involve a third person to make a triangle. If four or more people are involved, the system becomes a series of interlocking triangles. The formation of triangles is the way individuals act out emotional issues. The higher the level of anxiety, the more intense is the automatic triangulation in the family. The lower the level of differentiation of the involved people, the more intense is the triangulation. The higher the level of differentiation, the more the

people have control over the emotional process (Bowen, 1985).

Intimacy is defined as the ability to be close to another person while maintaining clear boundaries of one's identity (Lewis, Beavers, Gossett, & Phillips, 1976). Intimacy is comprised of four components: trust, love-fondness, self-disclosure, and commitment (Bray, Williamson, & Malone, 1984). Intimacy is a type of voluntary fusion which can be initiated or terminated at the discretion of the individual (Bray & Williamson, 1987).

Finally, personal authority in the family system is viewed as the life cycle stage occurring when adults are between 30 and 45 years old. During this stage the inherent tension between differentiation and intimacy are resolved in the biological family and in other significant personal relationships (Bray & Williamson, 1987). Personal authority is a continuum with personal authority at one pole and intergenerational intimidation at the other. Personal authority is reflected in the behavioral patterns characteristic of an integrated and differentiated self (Bowen, 1985) exercising increased control over individual destiny in life, and choosing personal health and well-being in a systemic sense.

A person displaying personal authority is connected and intimate with the family of origin, while simultaneously acting from a differentiated position within the family of origin (Bray et al., 1984). Personal authority is defined as having three major characteristics. They are:

1. Ability to order and direct one's own thoughts and feelings, to choose to express or not express these, to respect one's judgements as an adequate basis for action, and take full responsibility for the consequences of these actions.

2. Ability to initiate, receive, or decline to receive intimacy, voluntarily, while simultaneously maintaining clear self-boundaries.

3. Ability to relate to all other human beings, including one's parents, as peers in the fundamental experience of being human (Bray & Williamson, 1987).

In an article by Mindel (1979), the author described the historical trends in multigenerational households. In many societies the multigenerational household is typical family life. In the United States the multigenerational household is atypical and an interruption in the usual family life cycle.

Mindel (1979) reported during the 20th century the phenomenon of a married couple living with one or the other sets of parents after marriage was relatively infrequent. In fact, the trend in the last 30 years has been steadily downward to a point where 98.8% of all married couples maintain their own households. Data from the U.S. Census Bureau confirmed dominance of the nuclear family in American society. If the extended family household existed, it was only as an interruption of the normative family life cycle (Mindel, 1979).

In most societies, caring for the elderly individual has fallen on the next generation. The intergenerational relations in the past have focused on interactions between parents and youth, but now the focus must also be on aging parents and their children.

Unfortunately, much of what we claim we know about relationships between parents and their adult children is based on myth rather than on fact (Simos, 1973). Simos (1973) conducted a study with a population of Jewish families. Data were obtained from personal interviews with 50 individuals selected from the clientele of a Jewish Family agency on the West Coast. The families had requested information on caring for an elderly parent. A semi structured interview schedule was used. The

researcher's assumption was that people have turned with problems around aging to family agencies. The purpose of the research was to investigate the relationships between middle-aged adults and their aging parents. The research focused on the problems encountered with the parents, the coping patterns used, and the effectiveness thereof.

From the study, Simos (1973) reported several findings. Parents ranged in age from 60 to 94, with over twice as many mothers as fathers in the group. Family relationships were found to be a function of several variables. The author found when parents had been relatively stable emotionally and responded spontaneously and adequately to the needs of their growing children, positive feelings continued toward the parent when they aged and were considered elderly. The positive feelings continued despite physical and personality changes.

If the parent was unable to provide for the child a feeling of stability and spontaneity due to personal pathology, gross social and economic deprivation, the trauma of culture change, or a combination of these and other factors, the adult child had a different response to the aging parent. The adult child who did not receive love and affection accepted the responsibility of caring for the elderly parent, but the performance of the duties was

accompanied by feelings of resentment and burden. The wound that was already present in the relationship remained open (Simos, 1973).

The study clearly reflected psychic energies had to be spent first on the most immediate concern, the present. Only when the present situation allowed a surplus of energy could there be thought for the distant future. Simos (1973) suggested the need for social work to focus on all generations of the family, the appreciation of cultural problems, family life education programs around problems of aging, and greater attention to the stress of the middle-aged generation, which serves the old and the young as it struggles to reach its own fulfillment.

Now with the change in our population and the aging of America, society is changing. The presence of old parent-child conflicts and the difficulties of meeting an elder's emotional needs are probably among the chief sources of stress in the caregiving relationship (Sassen, 1985). There is a need for research on the characteristics of families of caregivers of the elderly and patterns of interactions which are most likely to contribute to successful family caregiving (Blieszner, 1986).

Summary of Intergenerational
Family Relationships

A review of the literature pertaining to intergenerational family relationships was discussed. Bray and Williamson (1987) and Hovestadt et al. (1978) indicated individual and family behaviors are affected by learned patterns passed from generation to generation. In the 20th century, 98.8% of all married couples maintained their own households (Mindel, 1979). In the 21st century, three and four generations will be living in the family home. Old parent-child conflicts will be among the chief sources of stress for the caregiver of the elderly (Sassen, 1985).

Essential to understand in the new century is what interventions are effective when there is an increase of the elderly population and an increase in the number of multigenerational homes. As early as 1973, Simos reported the need for family life education programs around problems of aging and greater attention to the stress of the middle-aged generation. Ingersol-Dayton et al. (1988) conducted a study to investigate different approaches to family therapy of the multigenerational home. The authors concluded results were more positive when grandparents were not included in therapy sessions, but they did involve them outside the sessions. Further investigation must be

conducted to understand the "new" family of the 21st century.

Families of Caregivers of the Older Person

As the structure of families change, transitions will be required and stresses will occur that may be disruptive to the family. Johnson and Bursk (1977) used structured interviews with 54 parent-child pairs to study four life areas identified as potentially relevant to the affectional quality of parent-child relationships. Each member of the pair was interviewed separately about health, living environment, finances, and attitude toward aging. Each member of the pair also rated his/her relationship to the other member of the pair.

Using multiple regression techniques, health, and attitude toward aging were the most statistically significant correlates of family relationships. The better the elder's health ($\beta = .30, p > .01$), the better the relationship between the elderly parent and adult child. Using correlation techniques, a fairly high agreement ($r = .55$) was found between the responses of the elderly parents and their adult children regarding the rating of their relationship (Johnson & Bursk, 1977).

Using interview data from two larger studies, Baruch and Barnett (1983) developed a three-item maternal rapport scale with a mean interitem correlation of .62 and a Cronbach's alpha for the scale of .87. The study sample was 171 women aged 35-55 who had living mothers. The mean score for the entire sample (range = 1 to 4) was 2.65. The items focused on quality of relationships of daughters with their mothers. The results showed daughters in the study described the relationships as somewhat or considerably rewarding. The percentage of daughters with scores of 3 or above was 45.3%. Using ANOVA procedures, the effects of mothers' health and marital status on maternal rapport scores were analyzed. The effect for health ($F = 6.273$, $p < .001$) was significant, but marital status was not. A mother's poor health, therefore, but not widowhood was associated with lower maternal rapport. Several women also reported witnessing a mother's illness or decline had increased their anxiety about their own futures.

Horowitz and Shindelman (1983) examined the question of why families provide care to their elder relatives. The sample consisted of 203 individuals identified as primary caregivers of elders receiving home or day-care services. The investigators developed four scales which were used in the study. Caregiving involvement was a 12-item scale

designed to measure objective level of time and task commitment. Cronbach's alpha was .82. Caregiving consequences were measured by securing responses to open-ended and fixed-choice questions. Information was collected regarding major problems, positive aspects of providing care, and areas of neglect and personal sacrifice.

Respondents indicated the manner in which providing care caused change for better or worse in 17 specified areas of personal and family life. The internal consistency reliability was .88 with a validity coefficient of .73. An affection scale measured the quality of caregiver--older relative relationships as perceived by the caregiver. Six items were used to tap both past and current feelings. Cronbach's alpha for the scale was .79 (Horowitz & Shindelman, 1983).

Reciprocity was operationalized by a 10-item scale measuring the extent and perceived importance of past help received. The internal consistency reliability was .62. The majority of caregivers reported relatively close and enjoyable relations with the older relative, it was not a necessary precondition for engaging in a caregiving relationship. There was also evidence of change in the affective relationship over time which appeared to be

attributable to the caregiving situation. The two most frequently mentioned motivators for providing help were family obligation (58%) and affection for the older relative (51%). Reciprocity was the third most common response cited by 17% (Horowitz & Shindelman, 1983).

Cantor (1983) interviewed both the frail, elderly clients of homemaker services and their families at two points in time--shortly after services commenced and after termination. The quality of the relationship between the caregiver and the care-receiver was found to be a significant indicator of willingness to assume the task.

The most worrisome stressor for all types of caregivers was the health of the dependent person. For spouse caregivers the next greatest concerns were with finances and the care-reciever's morale. Children worried more about obtaining sufficient help than about financial matters. The greatest degree of physical and financial strain was reported by spouse caregivers. All caregivers reported the impact of the experience was negative and involved doing without or giving up something--primarily free time for self, socializing with others, and leisure time pursuits. In conclusion, Cantor (1983) found the closer the bond was, the more stressful was the caregiving role. Spouses did not desire to relinquish the role, but

did express a need for respite and relief in order to conserve and replenish their resources. Children suffered more from a multiplicity of roles and the emotional stress in juggling them (Cantor, 1983).

Feinauer et al. (1987) conducted a preliminary study at the University of Utah to assess the types of issues faced by multigenerational families and the implications for family therapy. All family members over the age of 12 years were asked to complete a written questionnaire with the assistance of a trained interviewer. Data were obtained through a variety of open-ended items dealing with their specific difficulties and coping strategies. The areas identified as major factors in the multigenerational households included dependency, sibling relationships, depression, and demanding and egocentric behavior.

Dependency was the most commonly voiced concern by the elderly and the adult children. The concern was the potential and actual loss of the elderly person's ability to maintain his or her independence. The issue of sibling relationships occurs frequently when one sibling is the recipient of perceived criticism and the parent constantly praises the absent siblings. The elderly parents frequently experienced depression due to their feelings of discouragement and disillusionment about past events.

Finally, some of the elderly parents developed a demanding style of communication and the adult children felt caught in the middle. The adult children were attempting to meet the demands of their aging parent, their own children, and spouse (Feinauer et al., 1987). The authors concluded factors to be considered during family therapy include respite care, age, interdependence, dignity, provision of care, decision-making processes, and involvement of all members of the household in planning for the future.

A grounded theory method was used by Bowers (1987) to generate a new theory of intergenerational caregiving. Bowers conducted 60 interviews with 27 parents and 33 of their offspring. The caregivers' ages ranged from 38 to 72 and the parents ranged in age from 62 to 97. Eight of the parents lived with caregiving offspring, 16 lived alone, and 3 lived in retirement centers.

Bowers' (1987) study focused on invisible caregiving in which tasks are not of central importance and caregiving occurred from a distance. The assumption has been that individuals must live together in order for caregiving to occur and the amount of caregiver work and stress is generally associated with performing caregiving tasks for very impaired elderly (Bowers, 1987). Generally, the stress experienced by offspring of mildly impaired elderly

can be easily overlooked. These caregivers are not considered at high risk and are therefore, rarely included in caregiving studies. Thus, caregivers are considered to be invisible. Bowers (1987) study focused on the purpose of caregiving rather than the task, as the task effectively diverts attention from much of the work the invisible caregiver does.

Using the constant-comparative, grounded theory methods the author found that the invisible work of the caregiver of the elderly is directed primarily at protecting both the parent's self-image and established parent-offspring relationships (Bowers, 1987). The article reviewed focused only on one aspect of a much larger study. An analysis, however, of the data revealed five conceptually distinct, but empirically overlapping categories, of family caregiving. The author reported only one of these included what is generally considered to be caregiving, that is, hands-on caregiving behaviors or tasks. The other four types are not observable behaviors but are processes crucial to intergenerational caregiving and to an understanding of the experience of intergenerational caregiving (Bowers, 1987).

The five categories identified were anticipatory caregiving, preventive caregiving, supervisory caregiving,

instrumental caregiving, and protective caregiving. Of the five, protective caregiving was indicated by the caregivers as entailing both the most significant work and the most frequent and powerful source of stress. The five categories of caregivers with the definitions provided by Bowers (1987) are:

1. Anticipatory caregiving includes behaviors or decisions that are based on anticipated, possible needs of a parent. It is a mental event or perception that has a powerful impact on caregiver actions and is rarely talked about openly between parents and their offspring.

2. Preventive caregiving frequently includes activities carried out by offspring for the purpose of preventing illness, injury, complications, and physical and mental deterioration. It involves more active monitoring and supervising than anticipatory caregiving.

3. Supervisory caregiving is observed in situations where identifiable care is given to a parent. It is usually recognized by the parent and others as actual caregiving activity.

4. Instrumental caregiving is the hands-on caregiving more commonly recognized as caregiving. It is related to physical well-being and the care of the body rather than to emotional well-being and protection of the parents'

identity. Bowers (1987) stressed that, while this is the type of caregiving most often studied and analyzed by researchers, health professionals, and public policy officials, it was considered by family caregivers as the least important type.

5. Protective caregiving is intended to protect the parent from the consequences of that which was not or could not be prevented. The potential consequences were perceived by caregivers as threats to the parents' self-image rather than to their physical well-being. It included activities designed to protect the parent from awareness that he or she is being taken care of. For example, caregivers often used the language of role reversal, but described enormous efforts to prevent the parent from sharing this reversed role perception. The author concluded from the analysis of the interviews that the process of caregiving is much more complex than commonly used definitions would indicate and much of the stress associated with caregiving is unrelated to the performance of tasks (Bowers, 1987).

Walker, Pratt, Shin, and Jones (1990) conducted a study among 174 elderly mother-adult daughters pairs living in rural and urban areas of Western Oregon. The pairs in the study volunteered for a study on mother-daughter

relationships in adulthood. All daughters were primary caregivers providing at least one service for their mothers. Mothers lived within 45 miles of their caregiving daughters, were aged 65 or older, were free from cognitive impairment, and were unmarried.

The data were collected during separate face to face interviews with mothers and daughters. Each woman received a small payment at the beginning of the interview. Mothers and daughters were asked their beliefs about the daughters' motives for caregiving in their current situation. Both mothers and daughters completed an intimacy scale and demographic items. The median age of mothers was 84.0 years. The median age of the daughters was 53.0 (Walker et al., 1990).

The relationship quality was assessed by a 17-item intimacy scale. Cronbach alpha for the scale has ranged from .91 to .97 across assessments of different types of relationships: elderly mother/middle-aged daughter, young adult daughter/middle-aged mother, and young adult daughter/elderly maternal grandmother (Walker et al., 1990).

Three groups emerged during the analysis of the mothers' and daughters' responses. The first group had high discretionary motives, but low obligatory motives for

daughters' caregiving. The group was characterized as the High Discretion Group. Nearly one-fifth of the daughters and over one-tenth of the mothers reported both high discretionary and high obligatory motives for daughters' caregiving. This group was characterized as the Mixed Motives Group. The Low Discretion Group was a combination of 1% of mothers and 6% of daughters who reported low discretionary and high obligatory motives. They were combined with 4% of the mothers and 6% of the daughters who reported low discretionary and low obligatory motives. For an analysis using ANOVA, the last two groups were combined into the Low Discretion Group (Walker et al., 1990).

To assess the relation between motives for caregiving and perceptions of relationship quality, two one-way analyses of variance (ANOVAs) were performed. Intimacy was the dependent variable and perceived motives (high discretion, mixed, and low discretion motive groups) for caregiving as the independent variable. Also, one-way ANOVAs were used to examine differences in selected demographic characteristics by motives group. In the post-hoc analysis, Tukey-Cramer was used to investigate mean differences across the three motives groups; $p < .05$ was the minimum level of significance (Walker et al., 1990).

Daughters' intimacy scores ranged from 1.52 to 5.00. The overall mean was 4.00, SD = .72. Mothers' intimacy scores ranged from 2.06 to 5.00 with an overall mean of 4.73, SD = .43. ANOVA revealed significant differences in intimacy for mothers by motive group (F = 14.37 (2), p < .0001. Mothers in the low discretion group reported significantly lower intimacy in their relationships with their daughters than mothers in the mixed motive or high discretion groups. Significant differences were found in intimacy scores for daughters among groups. Daughters in the low discretion group reported the lowest intimacy scores (F = 15.56 (2), p < .00001) (Walker et al., 1990).

Walker et al. (1990) concluded caregiving motives are related to intimacy. When the women believed the daughters' motives were high discretionary, even if accompanied by high obligatory motives, they had higher intimacy scores. When there is little discretion perceived in caregiving, both caregivers and care recipients are at risk for lower relationship quality. Lower levels of relationship quality for caregiving daughters have been shown to be associated with role strain (Scharlach, 1987b) and burden (Scharlach, 1987a). Walker et al. (1990) stated the study provides insight into the mother-daughter relationship in the caregiving context.

There has been limited research on the aspects of family dynamics and family relationships in the intergenerational family. Researchers must acknowledge the impact of increased longevity and changes in society on the family relationships. Studies have focused on more tried and true concepts; thus there is a proliferation of studies on basically the same topics year after year (Blieszner, 1986).

Summary of Families of Caregivers of the Older Person

Few studies have been done on families of caregivers of the older person. Johnson and Bursk (1977) and Bursch and Barnett (1983) found the better the elder's health, the better the relationship between the elderly parent and the adult child. Horowitz and Shindelman (1983) and Cantor (1983) reported the quality of the relationship was a motivator for providing help for the older relative. Walker et al. (1990) concluded caregiving motives are related to intimacy. Cantor (1983) also found the closer the bond between daughter and mother, the more stressful was the caregiving role. Feinauer et al. (1987) identified major factors in the multigenerational households as dependency, sibling relationships, depression, and demanding and egocentric behavior. The authors concluded

there is a need for family therapy. Factors to consider in family therapy include respite care, age, interdependence, dignity, provision of care, decision-making processes, and involvement of all members of the household in planning for the future (Feinauer et al., 1987).

Stress of the Caregiver

In the literature discussing the caregiver of the older person, there is reference to several terms which all mean stress. The terms are stress, burden, and strain. Stone, Cafferata, and Sangl (1987) proposed there are two major stressors for the caregiver. The stressors are competing family obligations and work. Sassen (1985) wrote the two chief sources of stress in the caregiving relationship are difficulties in meeting the elder's emotional needs and continued presence of old parent-child conflicts. Horowitz (1985) suggested the negative consequences for caregivers are due to the changing role and capability of the older person; the restrictions on time and freedom; the economic burdens, including loss or curtailment of employment; and the detrimental effects on the caregiver's marital, family, and social relationships. Horowitz and Dobroff (1982) found a decline in health in 74% of spouses as a result of caregiving and a negative effect on the health of 33% of adult child caregivers.

Clark and Rakowski (1983) reviewed the literature from 1965 and 1981 and summarized the caregiving tasks that family members have reported. Past research has indicated family members have gone to great lengths to avoid institutionalization of an ill elderly parent or relative (Shanas & Maddox, 1976). Fengler and Goodrich (1979) asserted these family members often have feelings of burden and stress and generally have low morale. Robinson and Thurnher (1979) indicated family members and relatives who provide care make personal sacrifices, yet feel guilt and resentment (York & Calsyn, 1977) and sometimes even hostility (Silverstone & Hyman, 1982).

Robinson and Thurnher (1979) conducted a qualitative study which focused on the perspective of the adult child who assumes the caregiving role. Areas investigated included caregiver perceptions and attitudes toward the parent, ways the caregiver met the needs of the parents, and the stress generated by the caregiver relationship. The purposive sample was composed of 49 subjects drawn from a West Coast metropolitan area. Subjects were distributed evenly across socio-economic levels and the majority (85%) were married. Of the women, 50% were employed full-time. In-depth interviews were conducted during the initial phase of the study, followed by abbreviated interviews at 18

months and 5 years. The researchers identified two major areas of stress generated from the caregiving role. The first was stress related to the perceived mental deterioration of the parent. This generally resulted in a negative portrayal of the parents by their adult children. The second major area of stress was generated when the caregiving role was perceived as confining and was linked to infringements on lifestyle or hoped-for lifestyle. None of the caregivers received or sought help outside the family for the care of the parents.

From the review of the literature by Clark and Rakowski (1983), the authors identified 45 tasks most frequently mentioned and organized them into four broad categories. Tasks which appeared to be especially stressful or difficult for a caregiver were marked with an asterisk (*). The first broad category identified was tasks associated with the caregiver role as provider of direct assistance. The tasks were:

1. Be available when (or if) needed.
2. Supervise prescribed treatment and general recommendations.
3. Evaluate options for treatment and/or services.
4. Monitor course of the condition and evaluate significance of changes.

5. Evaluate strengths/resources of the care-receiver.
6. Anticipate needs for future assistance and services.
7. Provide structure for care-receiver's daily activities.
8. "Run interference" for care-receiver in social and community settings.
9. Normalize care-receiver's routine, within bounds of the impairment(s).
10. Supervise/directly manage care-receiver's resources.
11. Cope with upsetting behavior of the care-receiver.
12. Maintain adequate communication with the care-receiver.
13. Perform basic ADL for the care-receiver.*
14. Satisfy need for creativity/originality to offset tedious routines.

The second category was personal tasks faced by family caregivers. The following tasks were associated with the category:

1. Compensate for emotional drain from constant responsibility.*
2. Compensate for or recover personal time.*
3. Gain knowledge about the disease/condition.*

4. Avoid severe drain on physical strength/health.*
5. Resolve guilt over "negative feelings" toward care-receiver.*
6. Resolve disappointment or feelings of guilt over one's performance.*
7. Make up for or avoid loss/restrictions on future plans and perspective.*
8. Readjust personal routines.
9. Compensate for disruption of sleep.
10. Emotionally accept the likelihood of a progressive downward course.
11. Work through changes in the lifelong relationship between caregiver and care-receiver.
12. Find a locus of blame for the condition/disease.
13. Assume financial costs (actual and potential).
14. Confront the possibility of institutionalization.
15. Compensate for or avoid loss/reduction of physical and emotional intimacy.
16. Separate feelings regarding condition from feelings toward the care-receiver.
17. Resolve uncertainty about one's skills as a caregiver.
18. Release tensions/feelings toward the care-receiver.

19. Adjust to/cope with an uncertain future.

The third broad category was familial tasks of the caregiver role. The tasks were:

1. Designate other "responsible caregivers(s)."
2. Maintain family communication and exchange of information.
3. Balance the giving of assistance with responsibilities to other family members.*
4. Cope with the loss/restriction of family future planning.
5. Manage feelings toward other family members who do not regularly help.*
6. Maintain the family as effective decision-making group over a long period of time.
7. Give appropriate consideration to care-receiver's opinions and preferences.
8. Consider as a family the need for institutionalization.

The fourth and final category was societal tasks of the caregiver role. The tasks associated with this category were:

1. Interact with medical, health, and social service professionals.*

2. Maintain knowledge of the service system and options.

3. Act as advocate or third-party negotiator for the care-receiver.

4. Maintain knowledge of reimbursement mechanisms.

In each category Clark and Rakowski (1983) identified those areas which were most stressful or difficult for caregivers. In the area of direct assistance, the most stressful tasks of 14 items were performing basic activities of daily living for the care-receiver. Category number two looked at intrapersonal tasks for the caregiver. The tasks most stressful or difficult were:

1. Compensate for emotional drain from constant responsibility.

2. Compensate for or recover personal time.

3. Gain knowledge about the disease/condition.

4. Avoid severe drain on physical strength/health.

5. Resolve guilt over "negative feelings" toward care receiver.

6. Resolve disappointment or feelings of guilt over one's performance.

7. Make up for or avoid loss/restrictions on future plans and perspective (Clark & Rakowski, 1983).

In the third category familial tasks of the caregiver role, there were two of eight that were especially stressful. They were:

1. Balance the giving of assistance with responsibilities to other family members.

2. Manage feelings toward other family members who do not regularly help (Clark & Rakowski, 1983). Finally, in the area of societal tasks of the caregiver role, the most stressful was interact with medical, health, and social service professionals. Each of the tasks in the four categories constitutes some form of stress for the caregiver. The persistent, repetitious, and enduring nature of the tasks in combination with associated circumstances, such as interpersonal relationships, competing demands, and declining health status of the elder, are what is perceived as particularly stressful (Long, 1987).

Robinson (1983), in a study, sought to validate a Caregiver Strain Index (CSI). The purposive sample was composed of 85 individuals who were caring for an elder following discharge from an acute care facility for treatment of arteriosclerotic heart disease or open reduction of a hip fracture. Robinson (1983) operationally defined stress and strain as having the same meaning.

Eleven areas of stress were identified through the administration of the CSI: sleep disturbance, physical strain, inconvenience, family adjustments, demands on time, changes in personal plans, emotional adjustments, financial strain, emotional behaviors, work adjustments, and feeling overwhelmed.

Criterion-referenced construct validity was established for the CSI, internal consistency was .86 ($n = 31$) using Cronbach's alpha. Analysis of the data revealed no relationship between degree of stress and gender of the caregiver, or type of caregiver (spouse, adult child, friend). These findings were inconsistent with those reported by Cantor (1983) who found a significant relationship between closeness of bond between caregivers and elders being cared for and the amount of stress reported. Additional significant findings by Robinson (1983) included a negative relationship between perceived stress and caregiver satisfaction, and a positive relationship between perceived stress and caregivers who had not received help with their own feelings or problems.

Caregiver satisfaction was also the focus of a study by Worchester and Quayhagen (1983). The purpose of the comparative correlational study was to identify variables predictive of satisfaction in the caregiving role, and to

determine differences between past and current caregivers as potential precipitators of institutionalization of the elder. The sample consisted of 19 current, and 29 past, caregivers. Mean age of the elders was 77 years and of the caregivers was 50 years. Of the elders, 89% suffered from physical disabilities and 11% from cognitive disabilities. Significant factors influencing caregiver satisfaction were: age of caregivers ($r = .41$), and age of the elder ($r = .27$). Income did not contribute significantly to caregiver satisfaction. Psychological problems of the elder also contributed negatively to caregiver satisfaction.

Caregivers were asked to list things that they found to be stressful during the caring for the elders (Worchester & Quayhagen, 1983). Both past and current caregivers were in agreement on the activities generating stress, but in each activity the past caregivers perceived the situation as more stressful than the current caregivers. The following were perceived as sources of stress: bathing, refusal of elder to do what they could, elder forgetfulness, depression in the elder, elder doing unsafe things, inability to manage finances, lack of help from others, inability to leave elder alone, worry related to potential for harm to the elder, that the elder would

get sicker, and that the elder would die and the caregiver would not be able to handle it. These areas reflect the themes of lack of support, infringement on personal time, and the prevalence of psychological demands in the caregiving role.

Goldstein, Regnery, and Wellin (1981) examined the caregiving role through observations and interviews of 90 randomly selected caregivers. Over 80% of the caregivers were related to the older person being cared for and of these caregivers, 60% were women. This is consistent with previously reported findings. Median age of the elder was 77 years; age of the caregiver was not reported.

Goldstein, et al. (1981) found the role of caregivers "affects virtually all aspects of the caregivers' life to some degree" (p. 25). They identified four variables that were especially stressful: emotional level of disability and degree of dependence of the elder, caregivers' own health and functional mobility, presence or absence of assistance, and caregivers' other roles and responsibilities. The most frequently cited area of stress was the confinement of the caregiver due to role responsibilities. Goldstein et al. (1981) concluded the majority of caregivers experience role fatigue and many

caregivers perceive that the caregiving role adversely affects their own physical and mental health.

Baines (1984) collected data from a nonrandom sample of 50 family caregivers for a descriptive study. The majority of the caregivers were identified through public health departments in three countries in a southeastern state. The greatest stressor identified in the study was family caregivers' inability to leave the house. Financial concern was the next greatest stressor. Over one-half of the caregivers complained of being worn out and tired. Some lesser concerns were sexual relationships and the responsibility of caretaking.

Stress is experienced by caregivers in varying degrees. The stress is modified by several complex variables. Scharlack (1987a) suggested one of the variables that could modify the stress of the caregiver is the relationship between the caregiver and the care receiver. Other modifying factors are the type of care given the functional level of the elder, and the age of the caregiver and the care receiver (Horowitz, 1985).

An article by Dunn and Gallaway (1986) identified the stresses placed on the caregiver-care receiver relationship. The care receiver was identified as a

single, elderly, dependent parent and the caregiver was an adult female child.

Dunn and Gallaway (1986) categorized stresses for the adult caregiver of the elderly into three categories. The three categories were:

1. Stresses created by the parent/adult interaction.
2. Intrapsychic stresses of the caregiver. The stresses are not related to the dependent parent.
3. Stresses within the family excluding the dependent parent.

Dunn and Gallaway (1986) identified specific topics in each of the three categories. In the area of parent/adult child, stress occurs when any of the following occur alone or in combination with others. The stressors are role reversal, autonomy, reopening of old wounds, creation of new wounds, loss of freedom, additional decision-making responsibilities, shared living arrangements, declining physical health, and additional financial responsibilities.

Intrapsychic stressors for the caregiver are attributed to deteriorating health; social emotional stressors such as marital dysfunction, anxieties about death and dying, grieving over friends who have died; and financial stressors. Finally, intra-family stressors occur when one family member assumes the role of primary

caregiver and other members assume secondary roles. The intra-family stresses occur if the primary caregiver begins to feel resentment over the perceived lack of help from the other members in the family (Dunn & Gallaway, 1986).

Miller (1981) reported a great deal of stress is experienced when adult children of the elderly are sandwiched between aging parents and maturing children. The author summarized the literature by indicating stress of the adult caregiver of the elderly results from the following:

1. Several crises involving several members of the family from one or more generations occur at the same time.
2. Constant negotiations among the generations are required over the issue of autonomy.
3. When an elderly parent suffers an accident or acute illness which requires hospitalization.
4. A decision about insitutionalizing an elderly parent must be made.
5. The leisure time of parents becomes a burden.
6. Already stretched financial resources are acutely strained.

In a study conducted by Baines (1984), data were collected from a nonrandom sample of 50 family caregivers. The purpose of the study was to determine what stressors

were experienced by the caregiver of at least 65 years of age. The caregivers were required to have provided care for the disabled person in the home for a period of at least 1 month.

In the discussion of the article, Baines (1984) stated the greatest stressor for 64% of the family caregivers was money. Another stressor for over one-half of the caregivers was feelings of being worn out and tired. Some lesser stressors were sexual relationships and the responsibility of caretaking. The results of the study indicated the greatest stressor for the caregivers was not being able to get out of the house alone and there was a need for provision of recreational diversional activities for the disabled person.

In a article written by Chiriboga, Weiler, and Nielsen (1990), the authors examined the multiple domains of stressors that potentially affect the lives of caregivers. The study by Chiriboga et al. (1990) is probably the best documented study found in the literature on the stress of the caregiver of the older person. The first section of the article dealt with stress as a general topic and addressed why it is applicable to the caregiving context. The later sections of the article turned to findings from a specific research project. The target population of the

research was adult children who provided care for a parent afflicted with Alzheimer's disease. The authors stated a comprehensive understanding of the stress of caregivers will be gained only when the researcher or practitioner considers not only the stresses specific to the role of caregiving, but those that represent other areas of the caregiver's life.

Chiriboga et al. (1990) conducted an empirical study to see how stress exposure might affect the lives of one particular subgroup of caregivers: adult children who provide care to a parent afflicted with Alzheimer's disease. A basic decision was made as to how broad a range of stressors should be included. The researchers decided the stressors should include the stressors specific to caregiving and also stressors of a broad nature such as work and financial stressors.

The study was conducted in the Central Valley area of Northern California of adult child caregivers and their parents. Two hundred and fifty-five adult children were included in the analysis and all had parents with a probable diagnosis of Alzheimer's disease. The sample ranged in age from 27 to 67, with 50 representing the average age. Thirty percent of the caregivers were men and 70% were women. Fifty percent of the participants had not

completed their college education. Twenty-seven percent of the sample reported an income of \$45,000 and over. Nine percent felt they did not have enough money to make ends meet, and one-third had just enough to get by (Chiriboga et al., 1990).

Measurement was accomplished by responses to interviews and questionnaires that were given to all adult children. Basic demographic information included age and sex of the adult child, financial status of the caregiver, and gender of the afflicted parent. Parent characteristics included how long it had been since the first symptoms of Alzheimer's were noticed by the caregiver, the present severity of impairment, and frequency of contact with parent. The nine measures assessed for social support were: if caregiver had friends with a demented parent, number of friends living nearby, number of close kin living nearby, involvement in self-help group, frequency of contact with the nondemented parent (if available), number of siblings, marital status, whether subject was primary caregiver, and whether or not the subject had children. The measures for stressors were Life Event Inventory, Hassles Inventory, The Caregivers Burden Scale, and Instrumental Demands of Daily Life (Chiriboga et al., 1990). These questionnaires measured general life event,

hassles, perceived burden of care, and amount of actual care reported.

Three stress responses were included in the study. They were affect balance, anxiety, and depression. Affect balance was oriented to the normal range of functioning and covers positive and negative emotions that anyone might experience. Depression and anxiety were designed to detect problems in emotional functioning. In the study all three measures were significantly ($p = .001$) associated with each other. Affect balance correlated at $-.48$ with anxiety and $-.62$ with depression. Anxiety and depression correlated at the $.73$ level (Chiriboga et al., 1990).

Several characteristics were reported that the researchers believed provided a background for interpreting the results of the study. It was found adult children were not generally isolated from other family members' for example, most saw siblings more than once a month. Sixty percent believed they were the primary caregivers, with 33% saying it was a sibling. The majority of the participants lived less than 1 hour's drive away from their parent. Thirty-three of the participants saw their afflicted parent daily and another 38% saw their parent on a weekly basis. Finally, 21% of the adult children belonged to a self-help group for families with a member afflicted with Alzheimer's

disease and 86% reported they had turned to someone for help and advice about the problem associated with their parent (Chiriboga et al., 1990).

Hierarchical set regression analyses were computed with each of the three criterion to examine the relationship of the several different types of stress indicators to psychological functioning. In each regression, sets of variables were entered in the following order: (a) basic demographics, (b) parent characteristics, (c) social supports, (d) subjective and objective burden, and (e) events and hassles. Two regression analyses were run for each criterion. The first included four or five measures in each set. The second analysis included only those measures that exhibited significant or near significant relationships with the criterion (Chiriboga et al., 1990).

In the analysis focused on affect balance, the basic demographic set indicated adequacy of finances played a minor but beneficial role in the morale of caregivers ($p = .10$). The entry of parent characteristics indicated the greater contact with the parent was associated with lower morale; but the longer the parent had been recognized to have Alzheimer's disease, the higher was the morale ($p = .01$) (Chiriboga et al., 1990).

In the analysis focused on prediction of anxiety, demographic characteristics of the caregiver and the patient and the characteristics associated with the parent's illness did not predict anxiety. In the area of social support those caregivers with friends who had parents with Alzheimer's disease were significantly less anxious ($p = .001$). Persons who felt more guilt over the care of their parent, and who also felt uncertain about what to do, were higher in anxiety. Also, caregivers who felt embarrassed by their parents' behavior in public were likely to feel anxiety. Finally, work events, hassles in social relationships, and work hassles were associated with greater anxiety. Together they accounted for 20% of the variance in anxiety of caregivers (Chiriboga et al., 1990).

The last stress response used in the study was depression. Basic demographic characteristics such as finances and gender of caregiver were significantly associated with depression ($p = .01$). Characteristics of the parent's illness were not significantly related to depression. The only association between social support and depression was that caregivers with more kin living nearby were significantly less depressed. Scores on the burden scales, however, accounted for 15% of the variance in caregiver depression. When the caregiver felt burdened

by a combination of guilt and uncertainty, or when he or she felt embarrassed in public by the parent's behavior, depression was more likely. Caregivers who felt their parents made unreasonable demands were less depressed. Finally, caregivers with greater numbers of work events, more work hassles, and more hassles with social relationships appeared more depressed. Also caregivers reporting hassles with their spouses were significantly more depressed (Chiriboga et al., 1990).

Knowledge of only the caregiver's level of stress exposure will not reveal the entire picture of how the caregiver is faring. Caregivers' lives are governed by multiple factors and those variables must also be considered to better understand the caregiver of the older person.

Summary of Stress of the Caregiver

The literature reviewed identified major stressors for the caregiver of the older person. The stressors were family obligations (Chiriboga et al., 1990; Clark & Rakowski, 1985; Dunn & Galloway, 1985; Horowitz, 1985; Stone et al., 1987), employment and financial (Baines, 1984; Chiriboga et al., 1990; Horowitz, 1985; Stone et al., 1987; Worchester & Quayhagen, 1985), needs of the elder (Clark & Rakowski, 1985; Horowitz, 1985; Sassen, 1985), old

parent-child conflicts (Clark & Rakowski, 1985; Sassen, 1985), caregiver role (Goldstein et al., 1985, Horowitz, 1985; Robinson & Thurnher, 1985), health of the caregiver (Baines, 1984; Clark & Rakowski, 1985; Dunn & Galloway, 1985; Goldstein et al., 1981; Horowitz, 1985), health of the older person (Goldstein et al., 1981; Horowitz, 1985; Robinson & Thurnher, 1985; & Worchester & Quayhagen, 1985), coordinating professional services (Clark & Rakowski, 1985), caregiver confinement (Baines, 1984), and parent/child interaction (Dunn & Galloway, 1986).

Worchester and Quayhagen (1983) reported past and present caregivers agreed on activities generating stress; however, past caregivers perceived the situation as more stressful than current caregivers.

Few modifying factors for relief of stress of the caregiver were found in the literature. Schalack (1987a) suggested one of the variables that could modify the stress of the caregiver is the relationship between the caregiver and the care receiver. Other modifying factors were functional level of the elder and the age of the caregiver and care receiver (Horowitz, 1985).

Coping of the Caregiver

A study by Pratt et al. (1985) sought to identify specific coping techniques which were especially effective for caregivers of Alzheimer's patients and the relationship of these strategies to the caregivers' subjective sense of burden. Two hundred and forty subjects were surveyed using the Caregiver Burden Scale, the Family Crisis Oriented Personal Evaluation Scales, and a researcher-developed scale to gather descriptive information.

The subjects were caregivers to Alzheimer's patients and were drawn from ongoing support groups for Alzheimers's patients or attendees at workshops for Alzheimer's disease. The mean age of caregivers was 61.3 (SD = 14.6) and the mean length of caregiving was 49.1 months (SD = 14.7) (Pratt et al., 1985).

Chi-square and Pearson correlation procedures were used to examine relationships between selected variables. Analysis of variance and t-test procedures were used to examine potential differences in coping strategies and burden scores by demographic and caregiving characteristics. The significance level for all analysis was .05 (Pratt et al., 1985).

The mean caregiver burden score was 40.08 (SD = 17.9). There were no significant differences in burden scores by

caregivers: sex ($t = .44$, $df = 225$); income levels, $F (5, 207) = 1.92$; or education level, $F (7, 201) = 1.25$. Caregivers' burden scores did not vary significantly by patient's residence ($t = .52$, $df = 206$); specifically, caregivers to community dwelling patients had mean burden scores of 40.1 ($SD = 17.5$) and caregivers to institutionalized patients had mean burden scores of 39.6 ($SD = 18.7$). Burden scores were not significantly related to caregiver's age ($r = -.08$). Because burden scores were not significantly affected by caregiver's sex, age, income, education, or patient residence, all subsequent analyses were conducted on the entire sample as one group (Pratt et al., 1985).

Pratt et al. (1985) identified five coping strategies which were related to caregiver burden. Three of the coping strategies were considered internal. The three internal coping strategies were (a) having confidence in problem-solving abilities, (b) reframing, and (c) passivity. All three of the internal coping strategies were significantly correlated with burden: (a) confidence in problem solving ($r = -.18$, (b) reframing ($r = -.15$, and (c) passivity ($r = .26$). The internal coping strategies which were correlated with lower levels of burden were confidence in problem-solving and reframing. Passivity was

associated with higher levels of burden (Pratt et al., 1985).

Two coping strategies were considered external. The two external coping strategies were spiritual support ($r = -.25$) and extended family ($r = -.16$). The findings were that burden may be abated by the presence or exacerbated by the absence of affective support from the caregiver's family. Spiritual support, however, was correlated with lower levels of burden. Caregiver burden was not significantly related to the external strategies of calling upon friends ($r = .02$), neighbors ($r = -.07$), or to the use of community services ($r = .10$) (Pratt et al., 1985).

Pratt et al. drew three implications from this current study:

1. Health and social service agencies and policymakers must recognize the potential psychological and physical impact of long-term care on the caregiver.

2. An assumption should not be made that burden is related solely to the objective stresses of caretaking or that family caregivers rebound from the strains of caregiving once the daily responsibilities are removed by institutionalization of the patient.

3. Since burden is related to several coping strategies, interventions may profitably examine how to improve or build upon these (Pratt et al., 1985).

Barusch (1988) conducted in-depth interviews with 89 spouse caregivers to identify coping techniques which proved effective. A coping inventory was developed identifying problems confronting each caregiver. Problem situations were divided into six major areas: care management, personal and psychological, interpersonal with spouse, interpersonal with others, financial, and personal and health related. In order to participate in the study, a caregiver must have been providing 20 hours of care or more per week for at least 3 months. Within 2 weeks of screening, a trained interviewer met with each caregiver for an in-home interview.

Participants ranged in age from 55 to 89, with a mean age of 68.9. The caregivers were predominantly white (89%) and female (65%). Participants generally reported an annual household income of \$10,001 to \$15,000 per year (Barusch, 1988).

One of the findings of the researcher was elderly caregivers require a varied repertoire of coping techniques to deal with the diversity of problems encountered. The coping techniques were (a) not coping at all, (b)

inhibition of action--ignore stressor, (c) information seeking, (d) partial action--manage situation, (e) cognitive restructuring, (f) seeking help--to change situation, and (g) doing something alone--to change situation (Barusch, 1988).

The most common problems identified were missing the way the spouse was (88%), worrying over what would happen if the caregiver became ill (76%), feeling depressed (67%), and finding it physically difficult to perform care-related tasks (61%). The primary interpersonal problem experienced in connection with others was their failure to understand what life is like for the caregiver (51%) (Barusch, 1988).

The effectiveness of a specific technique for coping was measured through subjective ratings provided by caregivers. Caregivers rarely reported complete success at problem solving. The overall mean coping effectiveness was 2.7 on a 5-point scale. When mean effectiveness scores for the six types of problems were compared, interpersonal problems with others was the most difficult. Other problem areas ranked in order of difficulty included interpersonal problems with spouse (2.5), personal and psychological problems (2.6), financial problems (2.7), health problems (2.8), and care management (3.1) (Barusch, 1988).

An analysis of each of the 17 situations presented in the study was conducted. When the F was not significant at the .05 level, the authors reported the specific coping strategy used did not affect the outcome of the problem. The authors went on to state this possibly may be because the problem was not amenable to individual coping efforts. Four situations showed no significant relationship between coping style and effectiveness. These were: (a) feeling the spouse is overly dependent, (b) sexual problems, (c) feeling others don't understand, and (d) not knowing what to do. Thirteen of the 17 target situations showed a significant relationship between coping style and effective problem resolution (Barusch, 1988).

In the area of care management, there were two areas which showed a significant relationship between coping style and effectiveness. The two management problems were physical difficulty performing care-related tasks and care responsibilities leaving little time or energy for other activities (Barusch, 1988).

Six target situations in the area of personal and psychological problems had significant relationships between coping style and effectiveness. They were loneliness, depression, resentment, guilt, fear of the

future, and missing the way the spouse once was (Barusch, 1988).

In the area of interpersonal problems between the caregiver and the ailing spouse, two target situations had significant relationships between coping style and effectiveness. The two target situations were arguments with the spouse and spouse's failure to show appreciation (Barusch, 1988).

Three target situations from other categories showed significant associations between coping style and coping effectiveness. The situations were making excessive demands on caregivers' energy, worries about future financial problems, and worries about caregiver illness.

In the study completed by Baines (1984), a nonrandom sample of 50 caregivers was used. The caregivers were required to have provided care for the disabled person in the home for a period of at least 1 month. Both the caregiver and the disabled person were required to be at least 65 years of age. After consent was obtained, a registered nurse interviewed the primary caregiver in the home and administered a modified version of the Chronicity Impact and Coping Instrument: Parent Questionnaire. The questionnaire included four sections: (a) demographic and biographic information about the caregiver and the disabled

person, (b) areas of help needed in providing care, (c) concerns of the caregiver, and (d) methods of coping in the past.

The average age of the caregivers was 75, and 78% were female. Seventy-two percent of the caregivers were married to the person they were caring for. Seventy-six percent of the caregivers had children; 32% of those who had children lived within 1 mile, 20% lived within 30 miles, and 24% lived 30 miles or more from their children. Sixty-two percent of the family caregivers were Caucasian, 34% were Black, and 4% Hispanic. Fifty-six of the caregivers had a ninth grade education or below and only 10% reported incomes over \$20,000. Religious preferences of the caregivers were: (a) Catholic, 4%; (b) Protestant, 92%; and (c) no religious preference, 4%. Over half (54%) of the caregivers never had the opportunity to attend religious services outside the home (Baines, 1984).

Caregivers were asked how they coped with their self-concerns. Seventy-four percent of the 50 caregivers interviewed indicated prayer was the primary method of coping. Other ways that caregivers coped were busy self, cry, talk, hide feelings, get away, yell, ignore or forget, ask for help, take drugs or alcohol, exercise, and smoke. Further, the author indicated 6% of the caregivers utilized

exercise as a method of coping, but 10% took alcohol or drugs as a way to manage stress (Baines, 1984).

Pratt et al. (1985) indicated Baines' (1984) study suggested educational and other intervention programs should be designed to increase caregivers' confidence in problem-solving, provide caregivers help in redefining difficult situations, and teach them how to marshal social support. Karusa, Joss, Nowak, and Bruce (1983), in a paper presented to the Gerontology Society of American, supported the value of such an educational approach. Karusa et al. (1983) indicated participation in an educational series was associated with increased confidence and comfort in caregiving, decreased caregiver stress, increased tolerance of elderly care recipients, increased skill in caregiving, improved family relationships, and more effective caregiver interaction with health professionals.

The purpose of a study by Quayhagen and Quayhagen (1988) was to explore the coping patterns, management stimulation strategies, and support factors associated with well-being in 58 families experiencing the stress of an Alzheimer's diagnosed member who resided within the family unit. Each family caregiver was interviewed individually by a researcher in the home setting and responded to questions in regard to his or her perceptions of stress

from the caregiving role, their coping patterns, social supports, respite time, and well-being factors.

Well-being was assessed in three ways: life satisfaction, perceived physical health, and emotional health (or happiness). Stress was measured by the Memory and Behavior Problems Checklist. Coping was assessed by a modified version of the Coping Strategies Inventory. The study found that help-seeking was the most commonly used coping pattern by the total group of caregivers (77%), followed by problem-solving (52%) and existential growth (41%), along with blame and fantasy (40%).

Archbold (1980) identified ways caregivers coped with demands of the role. The author reported it was common for caregivers to give up personally meaningful activities and noted a decrease in spontaneous activities. The author also noted a decrease in participation in volunteer and church activities and the giving of rest periods and medical care for themselves.

Long (1987) conducted a comparative survey to investigate the relationship among elderly parent care strains as reported by family caregivers and the caregivers' stress, appraisal, and ways of coping with parent care strains. A retrospective survey design was used. Data were collected from 72 family caregivers of

cognitively competent, non-institutionalized elderly family members. The instruments used were: (a) parent care strain index, (b) a visual analogue scale, (c) Ways of Coping Index, (d) appraisal of situation index, and (e) specified demographics.

The coping scale was used in the study to assess the ways family caregivers coped with the targeted parent care strains. From the coping scale used in the study, three scores were derived. They were (a) a total coping score, (b) problem-focused coping score, and (c) an emotion-focused coping score. In the sample, total coping scores ranged from a low of 10 to a high of 93, with a mean score of 58.34. The range of scores was 0-198. Problem-focused coping scores ranged from a low of 5 to a high of 50, with a mean of 21.4. The possible range was 0-66. Emotion focused coping scores ranged from a low score of 0 to a high score of 53 with a mean of 27.32. The range was 0-102 (Long, 1987).

Those caregivers who selected intrapersonal and familial tasks (group 2, $n = 41$) as the targeted parent care strain had a higher mean emotion focused score ($\underline{M} = 31.13$) than those who selected direct assistance and societal tasks (group 1, $n = 31$) as the targeted parent care strain ($\underline{M} = 24.44$). A t-test was used to compare the

two groups on the emotion-focused coping scores. The t -test was statistically significant ($t = .0145$, $p < .05$) indicating caregivers use significantly more emotion-focused coping for parent care strains in the interpersonal and familial task categories. The hypothesis that caregivers who report intrapersonal and familial tasks as parent-care strains will report more problem-focused ways of coping than caregivers who report direct assistance and societal tasks as parent care strains was not statistically significant ($t = .4555$, $p = > .05$). The researchers also found caregivers' stress (high, medium, or low) was not significantly related to emotion-focused coping [$F(2, 69) = 2.36$, ($p = > .05$)]. Using regression analysis, emotion focused coping accounted for the majority of variance in the stress levels of caregivers (Long, 1987).

Participants in the study were asked to respond to a questionnaire consisting of four statements by choosing the statement that best described the caregiver situation. The instrument is the Appraisal of Encounter Questionnaire (APE). The four questions focused on (a) could be changed, (b) must be accepted, (c) needed more information, or (d) required one to hold back from acting. Caregivers who chose appraisal options change, information, and inhibit used significantly more problem-focused coping than those

who chose the appraisal option accept ($t = -1.86$, $p = .03$). Long (1987) summarized by saying the use of emotion-focused coping is somewhat greater as stress increases and the use of problem-focused coping is greater when the situation is appraised as amenable to some type of action.

Summary of Coping of the Caregiver

Pratt et al. (1985) identified coping techniques effective for caregivers of Alzheimer's patients. The five coping strategies which were related to caregiver burden were: (a) having confidence in problem-solving abilities, (b) reframing, (c) passivity, (d) spiritual support, and (e) extended family. Barusch (1988) found elderly caregivers used varied techniques to cope. The techniques were (a) not coping, (b) inhibition of action-ignore stressor, (c) information seeking, (d) partial action-manage situation, (e) cognitive restructuring, (f) seeking help--to change situation, and (g) doing something alone--to change situation. Baines (1984) reported caregivers indicated prayer was the primary method of coping. Quayhagen and Quayhagen (1988) found help seeking was the most commonly used pattern by caregivers. Finally, Long (1987) summarized a study on ways of coping by saying emotion-focused coping is somewhat greater as stress

increases and the use of problem-focused coping is greater when the situation is amenable to some type of action.

Health of the Caregiver

Throughout the literature there are numerous references to the health of the caregiver, but there is a lack of studies in this area. Pratt et al. (1985) found burden scores were significantly related to the caregiver's health status. The caregivers who rated their current health as good to excellent had significantly lower burden scores than did caregivers rating their health as fair to good. When the participants in the study described their health status before caregiving began, 41% (98) of the respondents reported their health status to be excellent, 46% (111) to be good, 11% (26) to be fair, and 2% (5) to be poor. In describing their current health status after some period of caregiving, 18% (43) described their health as excellent, 40% (96) as good, 31% (75) as fair, and 11% (26) as poor.

Johnson and Bursk (1977) interviewed 54 parent-child pairs to study four life areas identified as potentially relevant to the quality of parent-child relationships. Each member of the pair was interviewed separately. Each responded to questions about health, living environment, finances, and attitude toward aging. Each member of the

pair also rated their relationship to the other member of the pair. Multiple regression techniques were used. Health and attitude toward aging were the most statistically significant correlates of family relationships. The better the elder's health ($\beta = .30$, $p < .01$) and the better the parent's attitude toward aging ($\beta = .27$, $p < .01$) the better the relationship between the elderly parent and adult child. A fairly high agreement ($r = .55$) using correlation techniques was found between the responses of the elderly parents and their adult children regarding the rating of their relationship.

Baruch and Barnett (1983) developed a three item "maternal rapport" scale by drawing on the interview data from two larger studies. The sample for the study was 171 women, aged 35-55, who had living mothers. The items developed focused on quality of relationships with their mothers. The results showed that daughters described the relationships with mothers as somewhat or considerably rewarding. Using ANOVA procedures the effects of mother's health and marital status on maternal rapport scores were analyzed. The effect for health ($F = 6.273$, $p .0001$) was significant, but marital status was not. Therefore, a mother's poor health--but not widowhood--was associated with lower maternal rapport. Several women also reported

that witnessing a mother's illness or decline had increased their anxiety about their own futures.

Several authors have documented evidence that caregiver health is associated with the caregiver role. Chenoweth and Spencer (1986), in a study, found 21% of caregivers became ill or injured while giving care. Archbold (1980) reported from a study that most of the caregivers had some health problems related to the role of caregiver of the elderly. The caregivers tended to refuse to take action for their own health care if it interfered with the care of the patient.

George and Gwyther (1986) examined the well-being of family caregivers of older memory-impaired adults in four dimensions: physical health, mental health, financial resources, and social participation. Physical health was measured by two indicators: number of physicians visits in the past 6 months and self-rated health. Mental health was measured using four indicators: a checklist of psychiatric symptoms, a measure of affect, a single-item measure of life satisfaction, and absence versus presence of psychotropic drug use during the past 6 months. Finances looked at household income and perceived economic status. Social activities assessed: (a) phone contacts with family/friends, (b) visits with family/friends, (c)

frequency of church attendance, (d) frequency of club attendance, (e) time spent in hobbies, (f) time spent relaxing, and (g) satisfaction with social activities.

Survey instruments were mailed to all persons on a list from Duke University. These caregivers had been identified from a variety of sources including a media campaign, contacts with community physicians, social service agencies, and nursing homes, health fairs, and other outreach activities. The final sample consisted of 510 family caregivers (George & Gwyther, 1986).

Levels of well-being in the caregiver sample were compared to available population norms to determine the degree to which caregiving leads to decrements in well-being. Results indicated that, relative to community samples, caregivers are most likely to experience problems with mental health and social participation (George & Gwyther, 1986).

Dellasega (1989) surveyed 132 caregivers in Pennsylvania. In the survey, caregivers were asked if they felt that caregiving responsibilities had adversely affected their health. Twenty-two percent said never, 17% said rarely, 34% said sometimes, and 27% said frequently or nearly always. Caregivers were next asked if they had health problems. Fifty-eight percent reported problems.

Of the 34 conditions reported, the most frequent health problems were: (a) hypertension (20%), (b) arthritis (14%), (c) cardiac disease (12%), (d) nervousness and anxiety (11%), (e) back pain (7%), (f) stomach upset/indigestion (7%), and (g) depression (7%).

The author concluded by saying men reported difficulty with symptoms generally associated with stress. The women caregivers reported stress-related problems and were also more likely to report back problems. Finally, George and Gwyther (1986) found it noteworthy that each of the most common caregiver health problems can, potentially, impair the caregiver's ability to provide physical and emotional support for a frail elderly.

Killeen (1986) conducted a study using a descriptive correlational design which also contained a qualitative component. The qualitative component was used because the researcher indicated a lack of research in the area of the health of the caregiver, their ways of coping, and the use of health promotion activities.

An examination of the relationship between the caregivers' subjective assessment of their health and stress scores produced $r = -.19$, $p < .03$. The correlation indicated as stress scores increased, there was a decrease

in caregivers' positive assessment of their health (Killeen, 1986).

A Pearson's product-moment correlation was used to analyze the relationship between participation in health promotion activities and caregivers' assessment of their health status. A correlation of $\underline{r} = .29$, $\underline{p} < .002$ was obtained. These findings indicated as there was an increase in participation in health promotion activities there was a concomitant increase in the positive assessment of health status by caregivers (Killeen, 1986).

The researcher conducted a further examination by using partial correlations to control for gender, age, and education. With gender controlled the correlation was $\underline{r} = .27$, $\underline{p} = .003$. With age controlled, the relationship was strengthened ($\underline{r} = .31$, $\underline{p} < .001$). When education was controlled, the relationship remained significant ($\underline{r} = .29$, $\underline{p} < .002$). With all three variables simultaneously controlled, the correlation was $\underline{r} = .29$, $\underline{p} < .001$. The researcher concluded gender, age, and education did not contribute to the correlation between participation in health promotion activities and caregivers' positive assessment of their health status (Killeen, 1986).

Summary of Health of the Caregiver

Few studies on the health of the caregiver are reported in the literature. Pratt et al. (1985) stated burden scores were significantly related to caregivers' health status. Johnson and Bursk (1977) reported the better the elder's health and the better the parents attitude toward aging, the better was the relationship between the elderly parent and adult child. Several authors have documented that caregiver health is associated with the role of the caregiver (Archbold, 1980; Chenoweth & Spencer, 1986; Dellasega, 1989; George & Gwyther, 1986). Physiological and/or psychological problems were reported by the authors. Finally, Killeen's (1986) study indicated as stress scores increased there was a decrease in caregivers' positive assessment of their health.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The problem of the study was to measure statistical relationships between intergenerational family relationships, perceived stress, and current health among adult caregivers of the older person. This chapter discusses the methods and procedures that were used in the study. Included are the design, settings used for data collection, population and sample, description of procedures used for protection of human subjects, instruments, data collection procedures, and the treatment of the data.

Design

A descriptive correlational design using path analysis was used. Kerlinger (1986) indicated path analysis is a graphic method of studying the presumed direct and indirect influences of the independent variables on each other and on the dependent variable; specifically, it is a method of testing a theory.

Setting

The study was conducted throughout the United States. Caregivers of the older person were identified through a self-referral network. Numerous caregivers of the older person volunteered to participate in the study. Questionnaires were mailed to each individual who was identified to be a caregiver for a person 55 years of age or older.

Population and Sample

The population of the study was adult caregivers of the older person whether the older person resided in the home or not. The adult caregiver was any individual who provided unpaid care to an older person 55 years of age or older.

A nonprobability sample was used in the study. Convenience sampling or availability sampling (Kerlinger, 1986) was the form of nonprobability sampling used as random selection was not possible for the study. The researcher entered available participants into the study until the desired number was achieved.

Power analysis was used to determine the number of participants for the study (Cohen, 1988; Cohen & Cohen, 1983). To use the technique of power analysis the following information is required: effect size, level of

significance, desired level of power, and the number of variables. The following was established for the current study:

Effect size = .50

Level of significance = .05

Desired level of power = .80

Number of variables = 10

The data for the study were examined with an effect size of .50. Power analysis was computed and 60 participants were required for the study.

Protection of Human Rights

Rights of all participants were protected by compliance with the Texas Woman's University's Graduate School current rules and regulations of the Human Subjects' Review Committee (Appendix A). The study was considered a Category I study, as the data were collected from a questionnaire and the participants could not be identified by the researcher.

Questionnaires were mailed to caregivers of the older person. A letter (Appendix B) accompanied each questionnaire explaining the purpose of the study, its expected benefits and possible risks, and provided assurances of anonymity of information. The letter explained that the participant had the right to withdraw

from the study at anytime. In the letter of introduction to the study was a statement that completion and return of the questionnaire would be considered as consent to participate in the study.

Instruments

Instruments used for data collection were: (a) the Demographic Form, (b) the Personal Authority in the Family System Questionnaire (Bray, Williamson, & Malone, 1984), (c) the Perceived Stress Questionnaire (Cohen, Kamarck, & Mermelstein, 1983, and (d) the Current Health Self Report Inventory (Davies & Ware, 1981).

The Demographic Form

The Demographic Form (Appendix C) was developed by the researcher for use in the present study. The demographic form obtained information about the characteristics of the participants and the caregiver role.

Personal Authority in the Family System Questionnaire

The Personal Authority in the Family System Questionnaire (PAFS-Q) (Appendix D) was developed by Bray et al. (1984) to measure the interactional aspects of key concepts in the three-generational family system. The underlying concepts of the PAFS-Q are fusion,

triangulation, individuation, intimacy, isolation, personal authority, and intergenerational intimidation. These concepts and behaviors apply to the family of origin as well as the current nuclear family.

The PAFS-Q is a self-report instrument and has 132 items grouped into eight non-overlapping scales. There are three versions of the PAFS-Q. Version A is for adults with children. Version B is for adults without children. Version C is for college students without children. In the current research study, Version A was used. The eight non-overlapping scales (Bray et al., 1984) are:

1. Spousal Fusion/Individuation (SPFUS): Measures the degree to which a person operates in a fused or individuated manner in relationship with the mate or significant other. The greater the score, the greater is the individuation.
2. Intergenerational Fusion/Individuation (INFUS): Measures the degree to which a person operates in a fused or individuated manner with parents. The greater the score, the greater is the individuation.
3. Spousal Intimacy (SPINT): Items assess the degree of intimacy and satisfaction with their mate or significant other. The greater the score, the greater is the intimacy.

4. Intergenerational Intimacy (ININT): Measures the degree of intimacy and satisfaction with parents. The greater the score, the greater is the intimacy.

5. Nuclear Family Triangulation (NFTRI): Measures triangulation between spouses and their children. Items are completed only by people who have children. The greater the score, the lesser is the triangulation.

6. Intergenerational Triangulation (INTRI): Measures triangulation between a person and his/her parents. The greater the score, the lesser is the triangulation.

7. Intergenerational Intimidation (INTIM): Items assess the degree of personal intimidation experienced by an individual in relation to his/her parents. The greater the scores the lesser is the intimidation.

8. Personal Authority (PerAut): The scale measures the interactional aspects of Personal Authority. Items reflect topics of conversation which require an intimate interaction with a parent, while maintaining an individuated stance. The greater the score, the greater is the Personal Authority.

Intergenerational Intimacy, Intergenerational Triangulation, and Intergenerational Intimidation scales are answered separately for mother and father. The

responses for mother and father are summed for each question to calculate the total score for each scale.

Items in the PAFS-Q are rated on a 5-point Likert scale. Table 1 indicates the range of raw scale scores.

Reliability

The reliability of the PAFS-Q was assessed in two different studies by Bray et al. (1984). For study I, the test-retest reliability and internal consistency of the scales were evaluated on a sample of 90 nonclinical volunteers. The clinical volunteers rated their current relationships with relevant family members at a 2-week interval. The test-retest reliability estimates were consistent across time periods of a 2-week interval. Test-retest reliability estimates ranged from .55 to .95, with a mean test-retest reliability of .74.

Measures of internal consistency, alpha coefficient (Cronbach, 1951) were calculated for each scale at Time 1 and Time 2. The coefficients at Time 1 ranged from .82 to .95. The coefficients at Time 2 ranged from .80 to .95 (Bray et al., 1984).

In study II of Bray et al. (1984), the scales were factor analyzed using a sample of 400 nonclinical adults. The factor analysis produced eight scales which were similar to the eight conceptual scales. Cronbach's alpha

Table 1

Range of Raw Scale Scores for the PAFS Q

Scale	Low	High	Meaning
Spousal Intimacy	11	55	Higher score = More
Spousal Fusion/ Individuation	20	100	Higher score = More Individuation
Nuclear Family Triangulation	10	50	Higher score = Less Triangulation
Intergenerational Intimacy	25	125	Higher score = More Intimacy
Intergenerational Fusion/Individuation	8	40	Higher score = More Individuation
Intergenerational Triangulation	11	55	Higher score = Less Triangulation
Intergenerational Intimidation	29	145	Higher score = Less Intimidation
Personal Authority	18	63	Higher score = More Personal Authority

was calculated for each unit weighted factor. Items which overlapped with another factor were placed on the factor with the highest loading. The internal consistency ranged from .74 to .96. The coefficients from Study I and Study II were compared. The comparison indicated that the theoretically constructed scales and the empirically

derived factors have similar high levels of internal consistency.

Bray, Harvey, and Williamson (1987) assessed the internal consistency of the PAFS-Q in a clinical sample of 83 clients who participated in a study on the evaluation of the effects of intergenerational consultation on family functioning (Bray, Williamson, & Malone, 1986). The PAFS-Q was completed at the end of therapy. Cronbach's alpha for each scale score ranged from .75 to .96.

Validity

Bray et al. (1984) reported information on content validity, concurrent validity, and construct validity. Following is a summary of each area of validity.

Content Validity. The PAFS-Q was evaluated initially by two groups. One group was enrolled in a "Transgenerational Family Therapy" course and the other group was composed of mental health professionals with training and personal therapy in this area. Based on the evaluation of the two groups items were re-worded, moved to a different scale, or dropped based on the evaluation.

Concurrent Validity. Bray et al. (1984) estimated concurrent validity by correlating individual's responses on the PAFS-Q with other family rating instruments. The

instruments were the Family Adaptability and Cohesion Scales (FACES) and the Dyadic Adjustment Scale (DAS).

Correlations between the PAFS-Q scales and the adaptation scale of the FACES-I were very low. These results suggest that these scales measure different phenomena. There were significant correlations between the FACES-I cohesion scale and the PAFS-Q spousal intimacy scale and intergenerational intimacy scale. Correlations between the PAFS-Q scales and the social desirability scale of the FACES-I were generally low. The spousal intimacy scale, intergenerational fusion/individuation scale, and intergenerational intimacy scale had correlations above .30 with the social desirability scale. This indicated people tended to answer these scales in a socially desirable manner (Bray et al., 1984).

Several of the PAFS-Q scales correlated significantly with the DAS. The largest correlation was between the DAS and the spousal intimacy scale ($r = .69$). Greater dyadic adjustment correlated with more intimacy, more individuation, and less triangulation, particularly for the nuclear family scales (Bray et al., 1984).

There was also a number of significant correlations between the PAFS-Q and the nuclear family FACES-II. Greater cohesion correlated with more intimacy,

individuation, personal authority, and less triangulation. Overall, the correlations between the PAFS-Q and the family of origin Faces-II were not very strong.

Bray et al. (1984) further used the Symptoms Index to assess the concurrent validity of the PAFS-Q in a clinical setting. The Symptom Index is a comprehensive measure of physical and psychosomatic symptoms and stress indicators. The Symptom Index correlated significantly with most of the PAFS-Q scales. The negative correlations indicate fewer physical and psychosomatic symptoms and stresses correlated with more individuation, intimacy, and personal authority and less intimidation and triangulation.

Construct validity. The second study of Bray et al. (1984) factor analyzed the PAFS-Q to assess the construct validity of the scales. Oblique rotation was chosen because it was assumed the scales and components of the PAFS are correlated empirically and theoretically.

Delta was set at zero to allow for a medium amount of correlation. The individual variables comprising all of the scales, except those in the nuclear family triangulation scale, were analyzed. The nuclear family triangulation items were not included in the initial factor analysis because many of the subjects had no children, which would have limited the sample size.

The first factor analysis produced 23 factors with eigenvalues greater than 1. Application of the scree test indicated that seven factors should be retained. A second factor analysis was then conducted specifying a seven factor solution using oblique rotation ($\Delta = 0$).

Perceived Stress Questionnaire (PSQ)

Cohen et al. (1983) argued that an instrument assessing global perceptions of stress could serve a variety of valuable functions. First, the PSQ (Appendix E) would provide information about the processes through which stressful events influence pathology. For example, the scale can be used in conjunction with an objective scale in an effort to determine whether appraised stress mediates the relation between objective stress and illness. Second, the PSQ can be used to investigate the role of overall stress appraisal in situations in which the objective sources of stress are diffuse or difficult to measure. Third, the PSQ can be viewed as an outcome variable. Perceived stress measures the experienced level of stress as a function of objective stressful events, coping processes, and personality factors (Cohen, 1986; Cohen & Williamson, 1988).

Cohen and Williamson (1988) indicated the PSQ was designed to measure the degree to which situations in one's

life are appraised as stressful. The instrument focuses on to what extent participants find their lives unpredictable, uncontrollable, and overloaded. These three factors have been consistently identified as central components of the stress experience (Cohen, 1978). The authors suggested the PSQ can be used for examining the role of nonspecific appraised stress in the etiology of disease and behavioral disorders and as an outcome measure of experienced levels of stress. Cohen (1986) reported a correlation between PSQ scores and physical symptoms ($r = .16$, $p < .01$ and $r = .17$, $p < .003$).

The PSQ was designed for use in community samples with at least a junior high school education. The original scale contained 14 items and asked participants how often in the previous month they have experienced specific feelings and thoughts. "In short, the scale attempts to represent situations where a person perceived that their demands exceed their ability to cope" (Cohen, 1986, p. 717). Four-item and 10-item versions of the scale have been validated. In the current study, the 10-item version was used. Each of the 10 items is recorded on a 5-point Likert scale with zero representing never and 4 representing very often. PSQ scores are obtained by reverse scoring 4 of the 10 items (4, 5, 7, and 8). A

higher numerical total represents greater amounts of perceived stress. The PSQ was administered in this study in an effort to quantify the degree to which caregivers appraised their situation as stressful (Cohen et al., 1983).

Reliability and validity have been assessed on three samples: two college samples and one community sample. Each college sample completed five instruments: a life event measure, social anxiety, depressive symptomatology, physical symptomatology, and the PSQ. The first college sample was composed of 332 college freshman. The second sample was made up of 114 college students. The community sample was composed of 64 adults participating in a smoking cessation program. The community sample was measured with a life event scale, physical symptomatology checklist, and the PSQ.

The PSQ scores for women were consistently higher than those of men across the three samples, but the difference was not statistically significant. Scores ranged from 6-50 (males and females combined), with a mean of 23.18 and 23.67 for samples one and two, and 25.0 for sample three, SD ranged from 7.31 to 8.00.

Reliability

Reliability was assessed using Cronbach's alpha on each of the three samples. The values obtained were .84, .85, and .86. Test-retest was conducted using two time intervals of 2 days and 6 weeks. Two groups were administered the PSQ on two occasions separated by 2 days, another group was given the PSQ on two occasions at a 6 week interval. Test-retest correlation was .85 for the 2 day group, and .55 for the 6 week group (Cohen et al., 1983). Since the PSQ is designed to measure stress in the previous month, test-retest correlations would be expected in the 2 day group, but would be expected to differ in the 6 week group because of the changing nature of stress over time.

Validity

Concurrent validity was assessed using the other four measures that had been administered. Correlations between the PSQ and the life event scale were calculated. In all three samples the PSQ showed small to moderate correlations with the Life Event Scale ($r = .20 - .39$, $p < .01$) and increased ($r = .24 - .49$, $p < .01$) when participants' perceptions of life events were included (Cohen et al., 1983).

The researchers predicted the PSQ would be a better predictor of selected health outcomes than the life event scale. The prediction was supported in both the depressive and physical symptomatology. PSQ correlated with the depressive symptomatology in college student sample 1 and 2 ($r = .76$ and $.65$, $p < .001$) (Cohen et al., 1983). In every case the PSQ showed a stronger correlation than the life event scale.

The correlation between the PSQ and physical symptoms was reexamined with depression partialled out. The PSQ and physical symptoms remained significantly correlated ($r = .16$, $p < .01$ for sample 1 and $r = .17$, $p < .07$) in sample 2. The correlation between physical and depressive symptoms was examined with the PSQ partialled out. This yielded correlations of $r = .31$, $p < .01$ in sample 1 and $.38$, $p < .01$ in sample 2. From the information, authors asserted that the PSQ and the depression symptomatology scale independently predicted physical symptoms (Cohen, 1986).

Cohen et al. (1983) concluded the PSQ demonstrated adequate internal and test-retest reliability, and concurrent validity. The PSQ was more closely related to the measure of impact of life events than to an objective measure of the number of life events occurring within a

particular time span. This is consistent with the instrument's stated purpose of measuring the degree to which situations are appraised as stressful.

The PSQ also demonstrated stronger predictive validity in relation to health and health outcomes than did the Life Event Scale, permitting the PSQ to be used to determine whether appraised stress is a risk factor in behavior disorder or disease (Cohen, 1986). The authors (Cohen et al., 1983) in the discussion of the research indicated the PSQ provides predictions of health related outcomes 4-12 weeks after administration. Cohen et al. (1983) stated the PSQ can be used to determine whether "appraised" stress is an etiological (or risk) factor in behavioral disorders or disease.

The PSQ can also be used to look more closely at the process by which various moderators of the objective stressor/pathology relationship operate. The researcher believes this aspect alone of the PSQ makes it especially appropriate for use in the current investigation since the outcome measure is the current health status of the caregiver of the elderly. The PSQ ". . ." has been proven to possess substantial reliability and validity and thus it provides a potential tool for examining issues about the

role of appraised stress levels in the etiology of disease and behavioral disorders" (Cohen et al., 1983, p. 394).

The 14 item PSQ was factor analyzed using varimax rotation. Ten items loaded positively on the first factor at .48 or above. Items 4, 5, 12, and 13 had low loadings of .17, .33, .11, and .39, respectively. The 10 item PSQ was derived by dropping the four items with low factor loadings. The 10 items were submitted to factor analysis. All items loaded positively on the first factor at .42 or above. Two factors emerged with eigenvalues over 1.0. Deletion of the four items resulted in an improvement in both the total explained variance (48.9%) for both factors combined, Factor 1 = 34.4% and Factor 2 = 14.5% and internal reliability (alpha coefficient = .78) (Cohen & Williamson, 1988).

The researchers found elevated PSQ scores were associated with (a) shorter periods of sleep, (b) infrequent consumption of breakfast, (c) smoking cigarettes, (d) decreased frequency but increased quantity of alcohol consumption, (e) less frequent physical exercise, and (f) increased frequency and variety of illicit drug use (Cohen & Williamson, 1988). Cohen and Williamson (1988) reported there is an association between perceived

stress and illness symptoms and a wide range of health behaviors.

Killeen (1986) administered the PSQ to caregivers to assess the amount of stress they were experiencing. The scores ranged from 10 to 46, with a mean of 25.98 and an SD of 8.2. These values were consistent with the findings of (Cohen et al., 1983) on three samples (23.2, 23.7, 25.0; SD 7.31-8.0. The demographic variables that demonstrated a significant relationship with the PSQ were:

Age--r = 1.26, p < .005

Gender of Caregiver--r = .21, p < .02

Relationship of caregiver to the elder--r = .18,
p < .04

Killeen (1986) also reported a decrease in free time of the caregiver was associated with higher stress scores. The relationship between stress scores and caregiver subjective assessment of their health produced r = -.19, p < .03. The correlation indicated as stress scores increase there was a decrease in caregivers' positive assessment of their health. Finally, the reliability of the PSQ on the sample of caregivers was assessed using Cronbach's alpha. Cronbach's alpha on the caregiver sample was .84. This was consistent with alpha reliabilities of .84, .85, and .86 reported by (Cohen et al., 1983) which

demonstrated internal consistency when used with a sample of caregivers.

Current Health Scale (CH)

The Current Health Scale is one of eight scales developed by Ware and Karmos (1976). The eight scales contained in the measure are: current health, rank of health, prior health, health outlook, resistance, health worry/concern, pain, and sickness orientation. The Current Health Scale (CH) was used in this investigation (Appendix F). The CH scale has nine standardized items structured as statements of opinion of current health. The scale was designed to be self-administered and completion time is estimated at 5 minutes. Participants record responses to each item on a 5 point Likert scale. Number 1 is definitely false and number 5 is definitely true. The highest possible score is 45, midpoint is 27, mean is 34.58 with a standard deviation of 7.10. Higher scores indicate a more positive assessment of health status (Davies et al., 1988; Davies & Ware, 1981).

Psychometric evaluation has shown CH to be the most robust of the scales. CH correlated with the total measure index ($r = .66$). CH and the index were found to be the most valid scores in the measure. Principal components analysis revealed that CH was central to perceptions of

general health. Following extensive validity analysis, Davis and Ware (1981) concluded that CH was the most important general health construct. In an examination of CH and its relation to validity variables, CH was found to be the scale most highly correlated with both physical and mental health variables ($r = .40$, $p < .001$ for both). Validity variables examined included chronic and current personal limitation, chronic and current role limitations, physical capacity, exercise, acute symptoms, anxiety, depression, positive well being, emotional ties, emotional stability, and a mental health index.

Reliability coefficients of .84 to .88 have been obtained for the CH scale ($n = 4717$). Stability with a 1 year interval was .66, reflecting sensitivity in the measure to inevitable changes in current health (Davies & Ware, 1981).

Davis and Ware (1981) summarized their confidence in the CH when they stated, "In studies that require a measure of the core general health construct, the one that captures much of the variance common to the measure, either the full index or the CH subscale can be fielded" (p. 78). This scale was thus considered to be reliable and valid as a measure of participants' perceived current health status and was used for that purpose in this investigation.

Killeen (1986) administered the CH scale to obtain caregivers' subjective assessments of their own health status. The researcher noted the sample of caregivers reported significantly less positive levels of perceived health status than that reported by Davis and Ware. Killen's sample had a mean score of 27.8, SD 9.4. Davies and Ware (1981) reported a mean score of 34.6, SD of 7.0 (n = 4717). The author further explained there were extraneous variables that could account for this difference. Killeen (1986) reported reliability was assessed on a study of caregiver of the elderly by using Cronbach's alpha. An alpha of .92 was obtained. Previous reliability values were reported by Davis and Ware (1981) at .84 and .88.

Pilot Study

A pilot study was conducted with caregivers of the older person, 55 years of age or older, to obtain information for improving the project or for assessing its feasibility. The instruments used for the study were: (a) Demographic Form, (b) Personal Authority in the Family System Questionnaire (Bray et al., 1984), (c) Perceived Stress (Cohen et al., 1983) and (d) Current Health Scale (Ware, 1976).

The sample consisted of 12 caregivers of older persons who agreed to complete the questionnaire. The following modifications to the final data gathering instruments were made as a result of the pilot study:

1. The Demographic Form was refined. Questions relevant to providing care, age, and hours worked were modified in response to comments from the pilot study participants.

2. The Personal Authority in the Family System Questionnaire was refined. Directions for sections I, II, and III were clarified.

3. Page 9 of the questionnaire was rearranged so the participant did not have to turn from one page to another to answer questions 116-124.

Computer programs were written to compute the reliability coefficients for each of the instruments used. The alpha for PAFS was .94. The alpha for the PS questionnaire was .93 and for the CH questionnaire was .93. The alphas for each of the orthogonal scales of the PAFS were as follows: (a) Spousal Intimacy--.96, (b) Spousal Fusion/Individuation--.44, (c) Nuclear Family Triangulation--.97, (d) Intergenerational Intimacy--.94, (e) Intergenerational Fusion/Individuation--.82, (f)

Intergenerational Triangulation-- $.84$, (g) Intergenerational Intimidation -- $.91$, and (h) Personal Authority -- $.89$.

A Pearson correlation indicated the following were significant at the $< .05$ level. The variables were:

1. Intergenerational Intimacy and Family Triangulation-- $r = -.5409$, $p = .043$.
2. Intergenerational Fusion/Individuation and Family Triangulation-- $r = .8023$, $p = .001$.
3. Intergenerational Triangulation and Family Triangulation-- $r = .5247$, $p = .049$.
4. Perceived Stress and Family Triangulation-- $r = -.7425$, $p = .004$.
5. Current Health and Family Triangulation-- $r = .5334$, $p = .046$.
6. Perceived Stress and Intergenerational Fusion/individuation-- $r = -.6658$, $p = .009$.
7. Current Health and Intergenerational Fusion/Individuation-- $r = .5250$, $p = .040$.
8. Current Health and Perceived Stress-- $r = -.8164$, $p = .001$.

Finally, multiple regression indicated 63% of the variance in the dependent variable--current health--was explained by perceived stress and 16% of the variance was explained by Intergenerational Intimidation.

Collection of Data

After lists of caregivers of the elderly were compiled with addresses, a packet was mailed to each potential participant. Within each packet was a booklet with a letter of introduction about the study and the questionnaire. Also included was a stamped manila envelope addressed to the researcher for returning the questionnaire. In each packet of material was a stamped postcard addressed to the researcher. If the participant desired a summary of the results of the study, the participant completed the enclosed postcard with their name and address. The postcard was mailed to the researcher separate from the packet containing the completed questionnaire (Appendix G).

Treatment of Data

The data were treated as follows. Null hypothesis 1 stated: There is no statistical relationship between the Personal Authority in the Family System (PAFS) scores and Perceived Stress (PS) score of adult caregivers of the older person. Hypothesis 1 was tested using Pearson product-moment correlation coefficient (r). Hypotheses 1.1 through 1.8 were tested using the Pearson product-moment correlation coefficient (r).

The Pearson product-moment correlation coefficient (r) expresses the extent to which the members of sets of ordered pairs vary. Correlations tell the researcher the magnitude and the direction of the relationship. The correlation can vary from -1.00 through 0 to +1.00 (Kerlinger, 1986). A +1.00 indicates a perfect positive relationship, 0.00 indicates no relationship, and -1.00 indicates a perfect negative relationship (Munro, Visintainer, & Page, 1986).

The closer a correlation coefficient is to +1 or -1, the stronger is the relationship between the two variables. If a positive relationship occurs, as one variable increases, the other one increases also. In a negative relationship, which is signified with a minus sign before the number, as one variable increases, the other variable decreases (Munro et al., 1986). Munro et al. stated the direction of the relationship does not affect the strength of the relationship. The authors proposed the following categories which include + and - The categories are:

1. 0.00-0.25 little, if any
2. 0.26-0.49 low
3. 0.50-0.69 moderate
4. 0.70-0.89 high
5. 0.90-1.00 very high

The data analyzed were interval level data. The analysis was based on 60 participants, degrees of freedom 58, and the level of significance was set at .05. An r of .25 was significant.

Null Hypothesis 2 stated: There is no statistical relationship between the PAFS scores and the current health score in the adult caregivers of the older person. Hypothesis 2 was tested using Pearson product-moment correlation coefficient. Hypotheses 2.1 through 2.8 were also tested using Pearson product-moment correlation coefficient.

Null Hypothesis 3 stated: There is no statistical relationship between the PS score and CH score in adult caregivers of the older person. Hypothesis 3 was analyzed in the same manner as Hypothesis 1 and Hypothesis 2.

Null Hypothesis 4 stated: There is no statistical multiple relationship between the selected demographic variables and the current health of the caregiver. Multiple regression procedures were used to test the variability in the dependent variable, current health that was accounted for by the demographic variables.

Regression analyses allows the researcher to assess the relationship between one dependent variable and several independent variables (Tabachnick & Fidell, 1989). In

multiple regression several independent variables are combined to predict a value on a dependent variable for each subject (Tabachnick & Fidell, 1989). Kerlinger (1986) stated multiple regression is a method for studying the effects and the magnitudes of the effects of more than one independent variable on one dependent variable.

The researcher has spoken to several groups of caregivers of older persons and several individuals have indicated at each workshop their health has declined since becoming a caregiver for an older person. The review of the literature indicated there is a lack of research on the health of the caregiver. However, some studies were found. Pratt et al. (1985) found burden scores were significantly related to caregiver's health status. Other authors have documented that caregiver health is associated with the role of the caregiver (Archbold, 1980; Chenoweth & Spencer, 1986; Dellasega, 1989; George & Gwyther, 1986). Finally, Killeen (1986) stated as stress scores increased, there was a decrease in caregivers' positive assessment of their health.

The adequacy of the theoretical framework was evaluated by appropriate path analysis techniques. Kerlinger (1986) indicated path analysis is a graphic method of studying the presumed direct and indirect

influences of independent variables on each other and on the dependent variables. Path analysis can be ordinary correlation or regression to solve path models and can assist the researcher in improving causal theories (Munro, et al., 1986; Loehlin, 1987). A path model can be either recursive or non-recursive (Munro et al., 1986).

The principal use of path models is to make theories more elegant, useful, and parsimonious. There are two ways to reduce models in path analysis. One way is to use statistical significance and the other is to use the actual size of the path. Most researchers lean toward the use of meaningfulness or actual size of the path rather than statistical significance, in deciding which paths to trim (Munro et al., 1985). Land (1969) recommended deleting all paths with coefficients (betas) less than .05. In the current study, all paths that were not statistically significant were deleted.

CHAPTER IV

ANALYSIS OF DATA

The analysis of the data collected in the study is presented in this chapter. Descriptive statistics are used to describe the sample as a whole. The findings concerning the statistical analysis in the testing of the null hypotheses are reported. Finally, the adequacy of the model was analyzed by path analysis techniques.

Description of the Setting

A total of 193 questionnaires was mailed to 21 states. Seventy-six returned questionnaires were entered into the study. Those 76 questionnaires represented 13 states. Fifteen returned questionnaires were incomplete and not entered into the study; however, one additional state was represented which was North Carolina. Fourteen of the questionnaires were returned stating they were not presently or in the past a caregiver for an older person. In this group the additional states of Oklahoma and Washington were represented. One questionnaire was returned marked not able to deliver to addressee. This constitutes a 54.9% return rate of the questionnaires. Questionnaires were not returned by caregivers from the

states of California, Oregon, Virginia, Minnesota, and Washington, DC.

Caregivers participating in the study were asked to write in the state in which they currently reside.

Caregivers represented 13 states with 82.9% of the participants from either Texas or Idaho. One questionnaire was returned from each of the following states: Alabama, Arizona, Florida, Indiana, Mississippi, Nebraska, New York, Ohio, Pennsylvania, and Tennessee. Table 2 shows the states represented in the study.

Table 2

Distribution of Sample by State

State of Residence	Frequency	Percentage
Alabama	1	1.3
Arizona	1	1.3
Arkansas	3	3.9
Florida	1	1.3
Idaho	34	44.7
Indiana	1	1.3
Mississippi	1	1.3
Nebraska	1	1.3
New York	1	1.3
Ohio	1	1.3
Pennsylvania	1	1.3
Tennessee	1	1.3
Texas	<u>29</u>	<u>38.2</u>
Total	76	100.0

Description of Sample

Demographics

The findings relevant to the characteristics of the sample as a whole are reported here in two parts. First the demographic characteristics of the participants are discussed, and then the information obtained relevant to the caregiving situation is presented.

The total sample was comprised of 76 caregivers who provided or coordinated informal, unpaid care for older persons 55 years old and older. Fifty-six (73.7%) of the caregivers said they were currently the primary caregiver for a person 55 or older. Thirty-four (44.7%) of the caregivers said they were the primary caregiver for a person 55 years old or older in the past. Fourteen (18.4%) of the caregivers reported they were both present and past caregivers.

The caregivers' ages ranged from 28 to 81. The mean age of the caregivers was 55.3 years (SD = 10.89). A total of 5.2% (n = 4) of the caregivers' ages ranged from 28 to 35, 25% (n = 19) ranged from age 40 to age 49, 36.8% (n = 28) of the caregivers' ages ranged from 50 to 59, 21% (n = 16) ranged from 60 to 69, 10.5% (n = 8) ranged from 70 to 80, and 1.3% (n = 1) caregiver was 81. Sixty-one (80.3%) of the caregivers were female, 14 (18.4%) were

male, and 1 (1.3%) caregiver did not respond to the question. Composition of the total group according to ethnicity was 1.3% ($\underline{n} = 1$) Hispanic, 1.3% ($\underline{n} = 1$) American Indian, 2.6% ($\underline{n} = 2$) Black, 93.4% ($\underline{n} = 71$) White, and 1.3% ($\underline{n} = 1$) gave no response.

Of the 76 caregivers, 60 (78.9%) had children and 16 (21.1%) reported they had no children. As observed in Table 3, caregivers indicated they were related to the person receiving care as a spouse, son, daughter, friend neighbor, distant relative, or other. Thirty-eight (50%) of the caregivers indicated they were the daughters of the person they were caring for. Nine (11.8%) of the caregivers indicated they were the spouse of the person receiving care. Sons as caregivers accounted for 8 (10.5%) of the 76 participants. Four caregivers indicated they were a friend (5.3%). One (1.3%) caregiver took care of a neighbor and 6 (7.9%) of the caregivers cared for a distant relative. Eight (10.5%) of the caregivers marked "other" on the demographic sheet. Six of the 8 who marked "other" wrote in their relationship to the recipient of care. Two said they were the daughter-in-law, 1 said he was the son-in-law, and 3 said they were the sister of the older person who was the recipient of care.

Table 3

Distribution of Participants by Relationship

Relationship	Frequency	Percentage
Spouse	9	11.8
Son	8	10.5
Daughter	38	50.0
Friend	4	5.3
Neighbor	1	1.3
Distant relative	6	7.9
Other	8	10.5
Missing	<u>2</u>	<u>2.6</u>
Total	76	100.0

Caregivers were asked their marital status.

Caregivers had six choices. The choice of cohabitation was not used. Forty-six (60.5%) of the caregivers were married. Fourteen (18.4%) of the caregivers were divorced or separated and 9 (11.8%) were single. Only 4 (5.3%) of the caregivers were widowed and 3 (3.9%) were remarried. The responses are indicated on Table 4.

Caregivers of the older person were asked to indicate their highest level of education. Of the 76 caregivers, 65.8% were college graduates. Only 1 (1.3%) of the caregivers had an education of 8th grade or less. Fifteen (19.7%) had a 9th to 12th grade education. Ten (13.2%) had a technical education and 20 (26.3%) had a college education. Thirty (39.5%) had a post-graduate degree.

Table 4

Distribution of Participants according to Marital Status

Marital status	Frequency	Percentage
Married	46	60.5
Divorced or separated	14	18.4
Single	9	11.8
Widowed	4	5.3
Remarried	3	3.9
Cohabit	<u>0</u>	<u>0.0</u>
Total	76	100.0

Table 5 indicates the distribution of participants level of education 8th grade or less through post-graduate.

Table 5

Distribution of Sample by Highest Level of Education

Highest level of education	Frequency	Percentage
Eighth grade or less	1	1.3
Ninth to twelfth grade	15	19.7
Technical	10	13.2
College	20	26.3
Post-graduate	<u>30</u>	<u>39.5</u>
Total	76	100.0

Caregivers of an older person were asked if they worked outside of their homes. Of the 76 caregivers, 30 (39.5%) did not work, 35 (46%) worked full-time, 10 (13.1%) worked part-time, and 1 caregiver did not answer the question. Of the caregivers working part-time, 1 caregiver did not indicate the hours worked.

Caregivers were asked to rate the total income in their household. Five (6.5%) of the participants did not answer this question. One (1.3%) caregiver rated the household income from 0-10,000. Eight (10.5%) caregivers rated their household income from 10,001-20,000 and 18 (23.7%) rated their household income from 20,001 to 30,000. Eleven (14.5%) caregivers rated their household income from 30,001 to 40,000 and 9 (11.8%) rated their income from 40,001 to 50,000. Twenty-four (31.6%) rated their household income at more than 50,000. Table 6 indicates how participants rated their household income.

Caregivers were asked to list the age of the older person they were caring for or had cared for in the past. The ages ranged from 56-109 with a mean of 80.2 (SD = 9.7). Thirteen percent (n = 10) of the recipients of care were in the age range of 56-69. Recipients of care between the ages of 70-79 were 19% (n = 19). Forty-six percent (n = 35) were between the ages of 80-89. Ten (13.1%) were

Table 6

Distribution of Participants by Household Income

Household income	Frequency	Percentage
0-10,000	1	1.3
10,001 to 20,000	8	10.5
20,001 to 30,000	18	23.7
30,001 to 40,000	11	14.5
40,001 to 50,000	9	11.7
More than 50,000	5	31.6
Missing	<u>5</u>	<u>6.5</u>
Total	76	100.0

between the ages of 90-98. The last 2.6% ($\underline{n} = 2$) were aged 100 and 109 (see Table 7).

Table 7

Distribution of Recipients of Care by Age

Recipient of care by age	Frequency	Percentage
56-69	10	13.1
70-79	19	25.0
80-89	35	46.0
90-99	10	13.1
100	1	1.3
109	<u>1</u>	<u>1.3</u>
Total	76	100.0

Caregivers were asked where they provided care for the older person. Thirty-seven (48.7%) of the caregivers were supervising care in their home, 14 (18.4%) were supervising care in the nursing home, and 24 (31.6%) were supervising care at a distance. One caregiver did not answer the question.

Caregivers were asked to list how long they had been providing care or did provide care for the older person. Caregivers' answers ranged from 2 months to 300 months. The mean was 69.8 (SD = 67.2) months.

Findings

Testing of the Hypotheses

The presentation of the results for each hypothesis includes: A restatement of the hypothesis being tested, the statistical procedure used and a brief description of the findings.

Hypothesis 1: There is no statistical relationship between the Personal Authority in the Family System (PAFS) score and the Perceived Stress (PS) score of adult caregivers of the older person.

Hypothesis 1.1: There is no statistical relationship between the PS score in adult caregivers of the older person and the Spousal Fusion/Individuation (SPFUS) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the SPFUS subscale score on the PAFS. Hypothesis 1.1 was accepted ($\underline{r} = -.1421$, $\underline{p} = .122$). Perceived stress by the caregiver was not related to spousal fusion/individuation.

Hypothesis 1.2: There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Fusion/Individuation (INFUS) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the INFUS subscale score on the PAFS. Hypothesis 1.2 was rejected ($\underline{r} = -.3675$, $\underline{p} = .001$). A higher numerical total on the Perceived Stress Questionnaire represents greater amounts of perceived stress. Higher scores on the INFUS subscale indicate more individuation. Caregivers of the older person who reported higher levels of perceived stress operated in a more fused and less individuated manner in relationship to their parents or the person being provided care.

Hypothesis 1.3: There is no statistical relationship between the PS score in adult caregivers of the older

person and the Spousal Intimacy (SPINT) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the SPINT subscale score on the PAFS. Hypothesis 1.3 was rejected ($\underline{r} = .2948$, $\underline{p} = .007$). On the SPINT subscale a larger score indicates more intimacy. Caregivers of the older persons who reported higher perceived stress also reported a greater degree of spousal intimacy.

Hypothesis 1.4: There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Intimacy (ININT) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the ININT subscale score on the PAFS. The hypothesis was accepted ($\underline{r} = .1381$, $\underline{p} = .134$). The caregivers perceived stress was not related to intergenerational intimacy.

Hypothesis 1.5: There is no statistical relationship between the PS score in adult caregivers of the older person and the Nuclear Family Triangulation (NFTRI) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the NFTRI subscale score on the PAFS. Hypothesis 1.5 was rejected ($\underline{r} = -.3210$, $\underline{p} = .007$). Nuclear family triangulation items were only completed by caregivers who had children. The larger the scores on the NFTRI the less triangulation occurs in the family. The more the perceived stress by the adult caregiver of the older person, the more triangulation occurs between spouses and their children.

Hypothesis 1.6: There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Triangulation (INTRI) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the INTRI subscale score on the PAFS. Hypothesis 1.6 was accepted ($\underline{r} = -.0028$, $\underline{p} = .491$). There is no relationship between perceived stress and intergenerational family triangulation.

Hypothesis 1.7: There is no statistical relationship between the PS score in adult caregivers of the older person and the Intergenerational Intimidation (INTIM) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the INTIM subscale score on the PAFS. Hypothesis 1.7 was rejected ($\underline{r} = -.2800$, $\underline{p} = .008$). The larger the score on the INTIM subscale, the less personal intimidation is experienced by an individual in relation to his/her parents. The greater the perceived stress score of the caregiver the more the caregiver experiences personal intimidation by his/her parents.

Hypothesis 1.8: There is no statistical relationship between the PS score in adult caregivers of the older person and the Personal Authority (PerAut) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the PerAut subscale score on the PAFS.

Hypothesis 1.8 was rejected ($\underline{r} = .2027$, $\underline{p} = .042$). Items on the PerAut subscale of the PAFS are scaled so larger scores indicate more Personal Authority. The greater the perceived stress by the caregiver of the older person, the greater the personal authority or intimate interactions with parents while maintaining an individuated state.

Hypothesis 2: There is no statistical relationship between the Personal Authority in the Family System (PAFS)

score and the Current Health (CH) score in adult caregivers of the older person.

Hypothesis 2.1: There is no statistical relationship between the Current Health (CH) score and the Spousal Fusion/Individuation (SPFUS) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the SPFUS on the PAFS. Hypothesis 2.1 was accepted ($r = .1051$, $p = .193$). There is no relationship between current health and spousal fusion/individuation.

Hypothesis 2.2: There is no statistical relationship between the Current Health (CH) score and the Intergenerational Fusion/Individuation (INFUS) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the INFUS subscale score on the PAFS. The hypothesis was accepted ($r = .1831$, $p = .058$).

Hypothesis 2.3: There is no statistical relationship between the Current Health (CH) score and the Spousal Intimacy (SPINT) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the SPINT subscale score on the PAFS. The

hypothesis was rejected ($\underline{r} = -.3300$, $\underline{p} = .003$). Higher scores on the Current Health Scale indicate a more positive assessment of health status. Items on the SPINT are scaled so that larger scores indicate more intimacy. The more positive the assessment of the current health of the caregiver the less the degree of intimacy with the caregiver's spouse.

Hypothesis 2.4: There is no statistical relationship between the Current Health (CH) score and the Intergenerational Intimacy (ININT) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the ININT subscale score on the PAFS. The hypothesis was accepted ($\underline{r} = -.0089$, $\underline{p} = .471$).

Hypothesis 2.5: There is no statistical relationship between the Current Health score (CH) and the Nuclear Family Triangulation (NFTRI) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the NFTRI subscale score on the PAFS.

Hypothesis 2.5 was rejected ($\underline{r} = .3379$, $\underline{p} = .004$). Items on the NFTRI are scaled so that larger scores indicate less triangulation. The more positive the assessment of the

current health of the caregiver of the older person the less the degree of triangulation between spouses and their children.

Hypothesis 2.6: There is no statistical relationship between the Current Health (CH) score and the Intergenerational Triangulation (INTRI) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the INTRI subscale score on the PAFS. Hypothesis 2.6 was accepted ($r = -.1241$, $p = .157$).

Hypothesis 2.7: There is no statistical relationship between the Current Health (CH) score and the Intergenerational Intimidation (INTIM) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH score and the INTIM subscale score on the PAFS. Null hypothesis 2.7 was accepted ($r = .900$, $p = .223$).

Hypothesis 2.8: There is no statistical relationship between the Current Health score (CH) and the Personal Authority (PerAut) subscale score on the PAFS.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the CH

score and the PerAut subscale score on the PAFS.

Hypothesis 2.8 was accepted ($\underline{r} = -.1486$, $\underline{p} = .102$). There was no relationship between the Current Health score and the PerAut subscale score on the PAFS.

Hypothesis 3: There is no statistical relationship between the Perceived Stress (PS) score and the Current Health (CH) score in adult caregivers of the older person.

The Pearson product-moment correlation coefficient was used to determine if a relationship existed between the PS score and the CH score in adult caregivers of the older person. The hypothesis was rejected ($\underline{r} = -.5724$, $\underline{p} = .000$). The caregivers who had higher levels of perceived stress had lower levels of current health and vice-versa.

Hypothesis 4: There is no statistical multiple relationship between selected demographic variables and the current health of the caregiver.

Multiple regression was used to determine if selected demographic variables predicted the current health of the caregiver. There was no relationship between selected demographic variables and the current health of the caregiver. Hypothesis 4 was accepted (Multiple $\underline{R} = .51446$, $\underline{R}^2 = .265$, $\underline{F} = 1.4397$, $\underline{p} = .1589$).

Reliability

Prior to testing Hypothesis 1, 2, 3, and 4, the internal consistency reliability of the PAFS Questionnaire and eight subscales, Perceived Stress Questionnaire, and Current Health Questionnaire were verified by means of the SPSSx package Reliability Procedure. Cronbach's alpha was estimated at .86, indicating the Personal Authority in the Family System Questionnaire was reliable. Table 8 shows Cronbach's alpha for each of the subscales for the PAFSQ.

Table 8

Cronbach's Alpha for Each Subscale of the PAFSQ

PAFSQ subscales	Cronbach's alpha
Spousal Fusion/Individuation (SPFUS)	.56
Intergenerational Fusion/Indiv. (INFUS)	.65
Spousal Intimacy (SPINT)	.95
Intergenerational Intimacy (ININT)	.91
Nuclear Family Triangulation (NFTRI)	.62
Intergenerational Triangulation (INTRI)	.91
Intergenerational Intimidation (INTIM)	.92
Personal Authority (PerAut)	<u>.86</u>
Total	.86

Cronbach's alpha on the Perceived Stress Questionnaire was .89 and Cronbach's alpha on the Current Health Scale was .91.

Development of Model Using Path Analysis

The potential model was developed from the zero correlation matrix using significant r 's. Only r 's of .3 or above were utilized in the model (see Figure 5).

Figure 6 was developed by using multiple regression analysis. The age of the person being cared for was the dependent variable and the independent variables or exogenous variables were the age of the caregiver and the hours the caregiver worked. The results were $R^2 = .117$, Adjusted $R^2 = .092$, $F = 4.817$, $p = .011$. Beta for the path between caregiver's age and the age of the person receiving care was .269 which was significant in the equation ($p = .020$). The beta for the path between hours the caregiver worked related to the age of the person receiving care was $\beta = -.153$ which was not significant in the equation ($p = .183$ (see Figure 6)).

Figure 7 was developed using multiple regression techniques. The dependent variable was spousal intimacy and the independent variable or exogenous variable entered was spousal fusion. Statistically $R^2 = .182$, Adjusted $R^2 = .171$, $F = 16.503$, $p = .000$. Beta for the path between

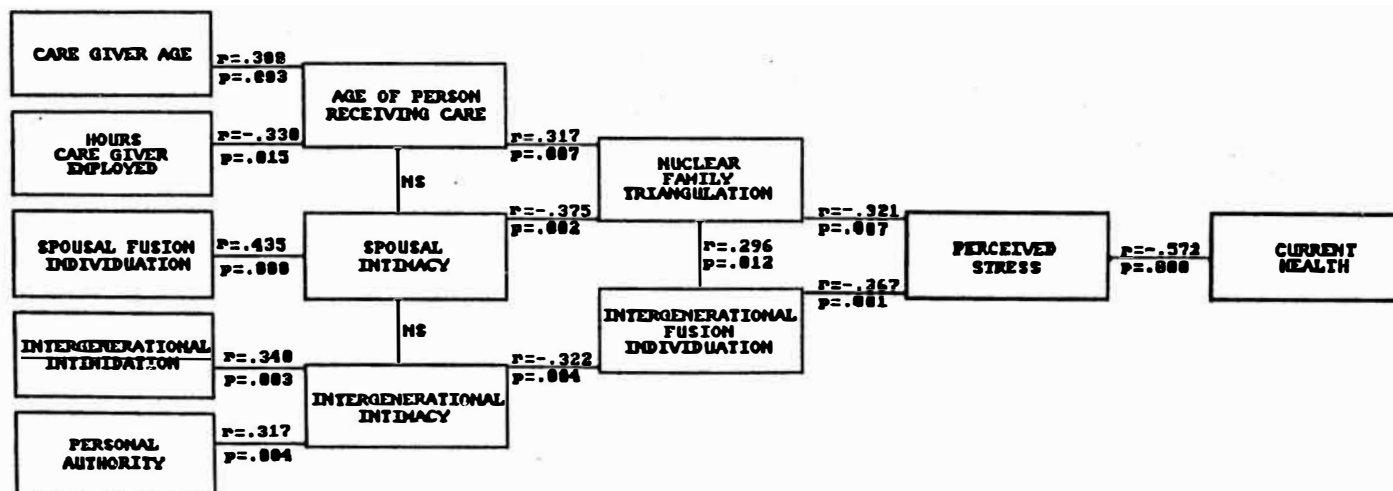


Figure 5. Zero correlation matrix using significant r's.

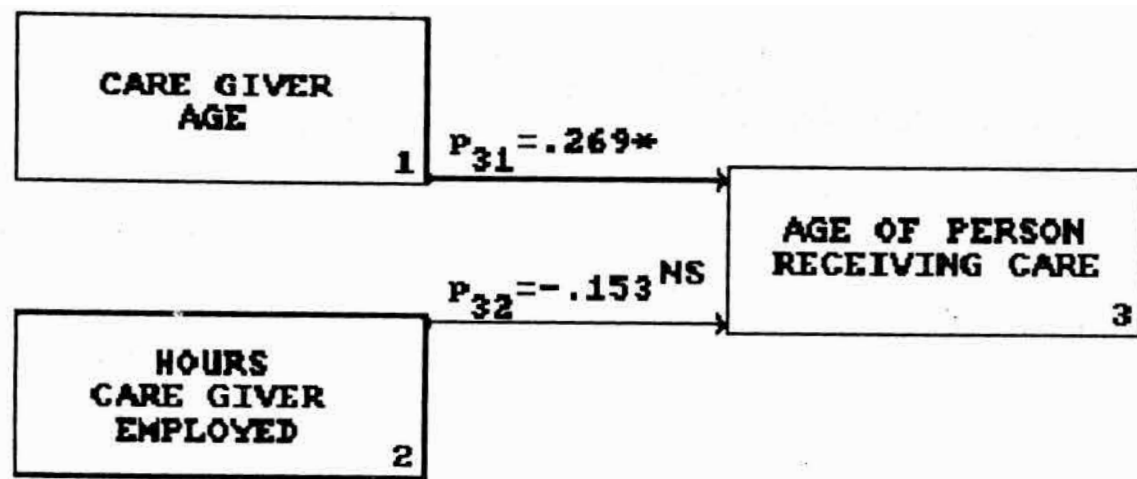


Figure 6. Multiple regression analysis with the age of person receiving care as the dependent variable.

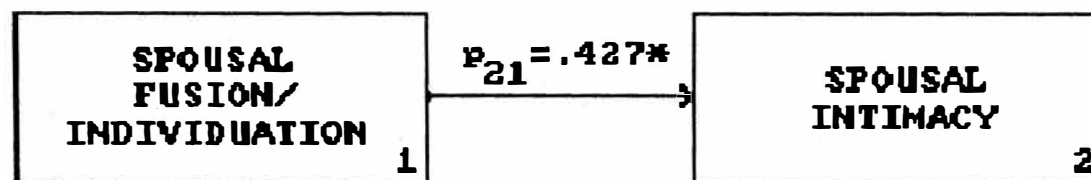


Figure 7. Multiple regression analysis with spousal intimacy as the dependent variable.

spousal intimacy and spousal fusion was .427 which was significant ($p = .000$) (see Figure 7).

Figure 8 was developed using multiple regression techniques. The dependent variable was intergenerational intimacy and the independent variables or exogenous variables entered were intergenerational intimidation and personal authority. Multiple regression indicated $R^2 = .234$, Adjusted $R^2 = .214$, $F = 7.826$, $p = .000$. Beta for the path between intergenerational intimidation and intergenerational intimacy was .385 which was significant in the equation $p = .000$. Beta for the path between personal authority and intergenerational intimacy was .381 which was significant in the equation ($p = .001$) (see Figure 8).

Multiple regression was used for Figure 9 with nuclear family triangulation being the dependent variable and spousal intimacy, spousal fusion/individuation, age of the person being cared for, hours the caregiver works, and age of the caregiver being the independent variables being entered. The results were $R^2 = .201$, Adjusted $R^2 = .144$, $F = 3.541$, $p = .006$. Beta for the path between nuclear family triangulation and spousal fusion is .141 which was not significant in the equation ($p = .255$). Beta for the path between nuclear family triangulation and spousal

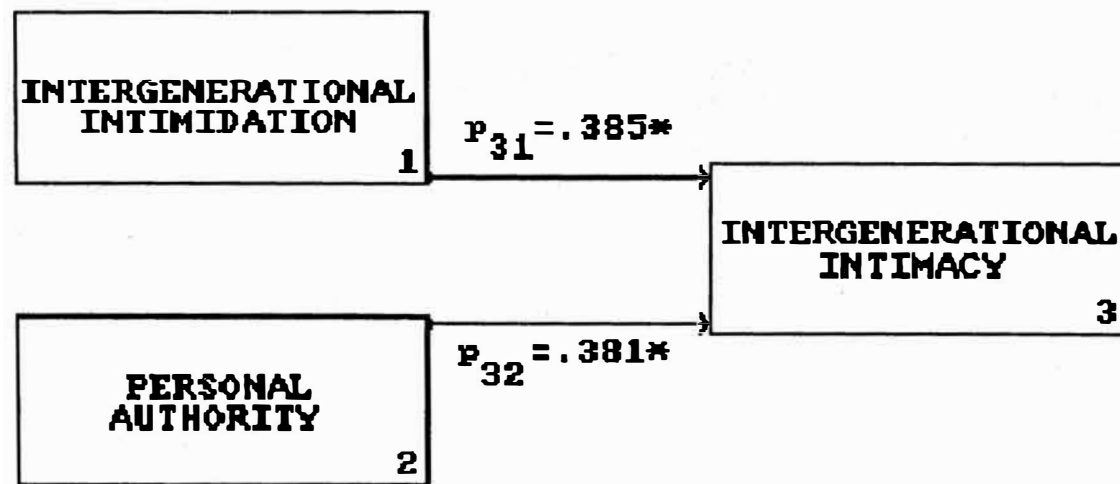


Figure 8. Multiple regression analysis with interpersonal intimacy as the dependent variable.

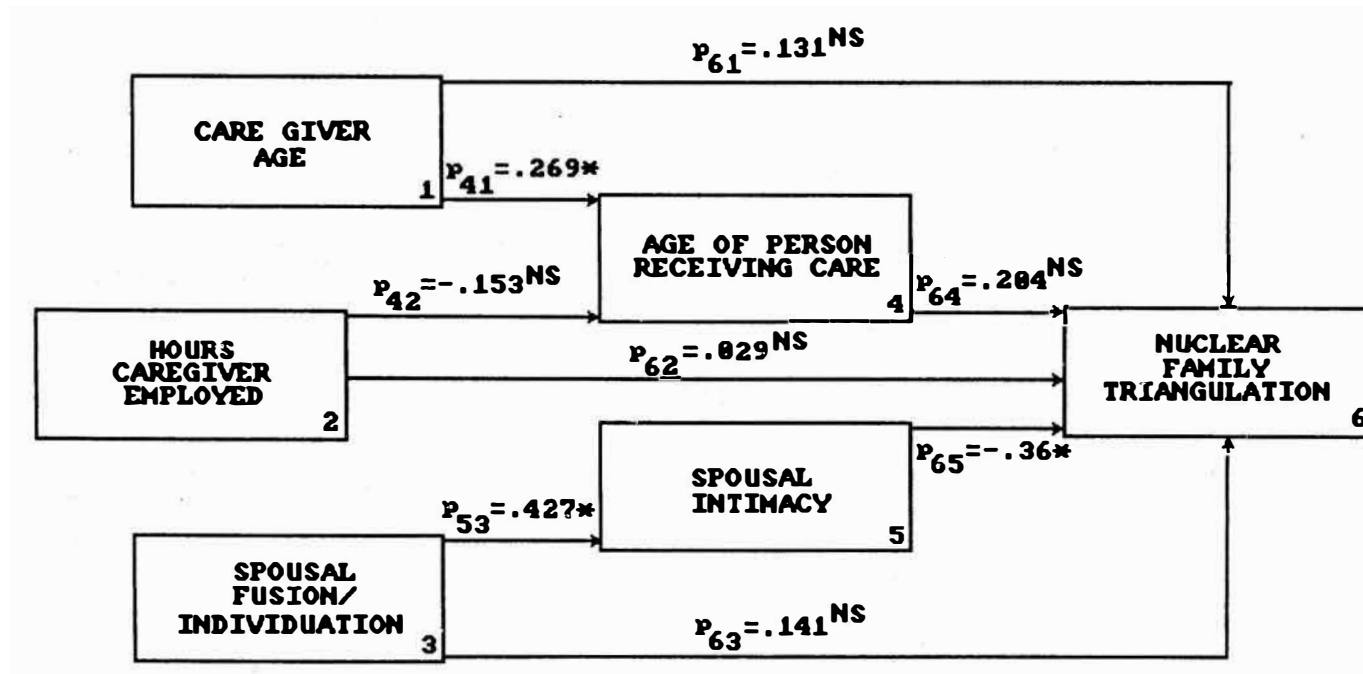


Figure 9. Multiple regression analysis with nuclear family triangulation as the dependent variable.

intimacy is $-.360$ which was significant in the equation ($p = .003$). Beta for the path between nuclear family triangulation and the hours the caregiver worked was $.029$ which was not significant in the equation ($p = .792$). Beta for the path between nuclear family triangulation and the age of the person receiving care was $.204$ which was not significant in the equation ($p = .081$). Beta for the path between nuclear family triangulation and the age of the caregiver was $.131$ which was not significant in the equation ($p = .276$) (see Figure 9).

Figure 10 was developed by using multiple regression analysis. The dependent variable was intergenerational fusion/individuation. Entered into the equation as independent variables were intergenerational intimacy, intergenerational intimidation, and personal authority. The $R^2 = .088$, Adjusted $R^2 = .050$, $F = 2.326$, $p = .081$. The beta for the path between intergenerational intimacy and intergenerational fusion/individuation was $-.324$ which was significant in the equation ($p = .014$). The beta for the path between personal authority and intergenerational fusion/individuation was $.034$ which was not significant in the equation ($p = .789$). Beta for the path between intergenerational intimidation and intergenerational

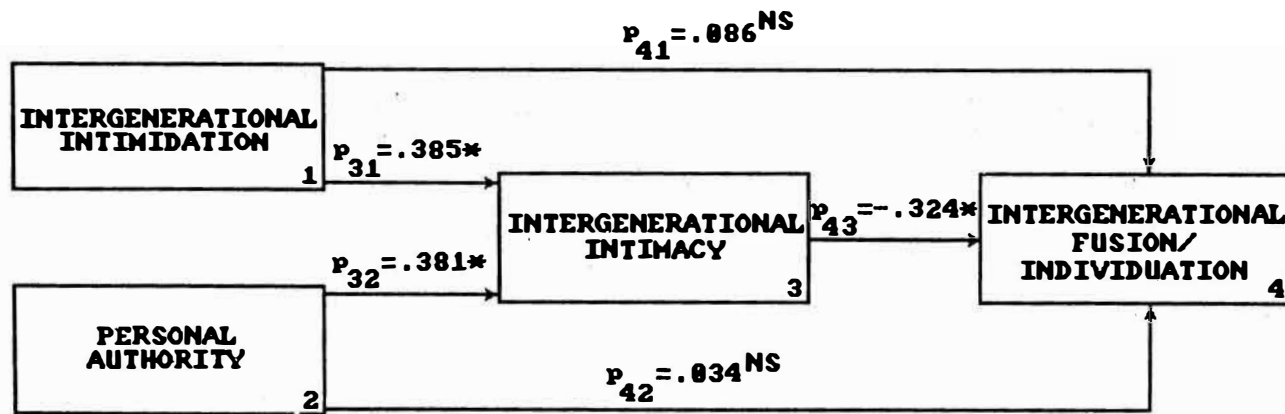


Figure 10. Multiple regression analysis with intergenerational fusion/individuation as the dependent variable.

fusion/individuation was .086 which was not significant in the equation ($p = .495$) (see Figure 10).

Figure 11 was developed by using multiple regression analysis. Nuclear family triangulation was the dependent variable and intergenerational fusion/individuation, intergenerational intimacy, and spousal intimacy were entered as the independent variables. The results were $R^2 = .167$, Adjusted $R^2 = .133$, $F = 4.824$, $p = .004$. Beta for the path between nuclear family triangulation and intergenerational fusion/individuation was .219 which was not significant ($p = .06$). The beta for the path between nuclear family triangulation and spousal intimacy was $-.313$ which was significant ($p = .01$). Beta for the path between nuclear family triangulation and intergenerational intimacy was $-.121$ which was not significant ($p = .29$) (see Figure 11).

Figure 12 was developed by using multiple regression analysis. The dependent variable was perceived stress. Entered as the independent variables were intergenerational fusion/individuation, intergenerational intimacy, intergenerational intimidation, and personal authority. With all of the independent variables in the equation $R^2 = .326$, Adjusted $R^2 = .257$, $F = 4.701$, $p = .00$. Beta for the path between perceived stress and personal authority was

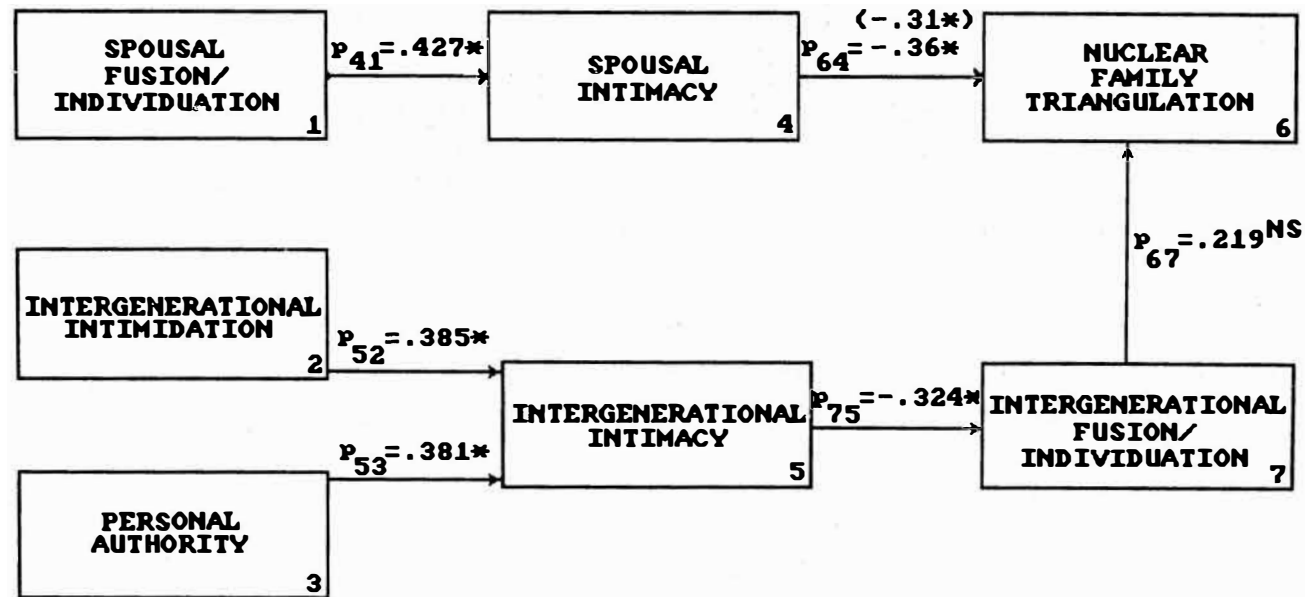


Figure 11. Multiple regression analysis with nuclear family triangulation as the dependent variable.

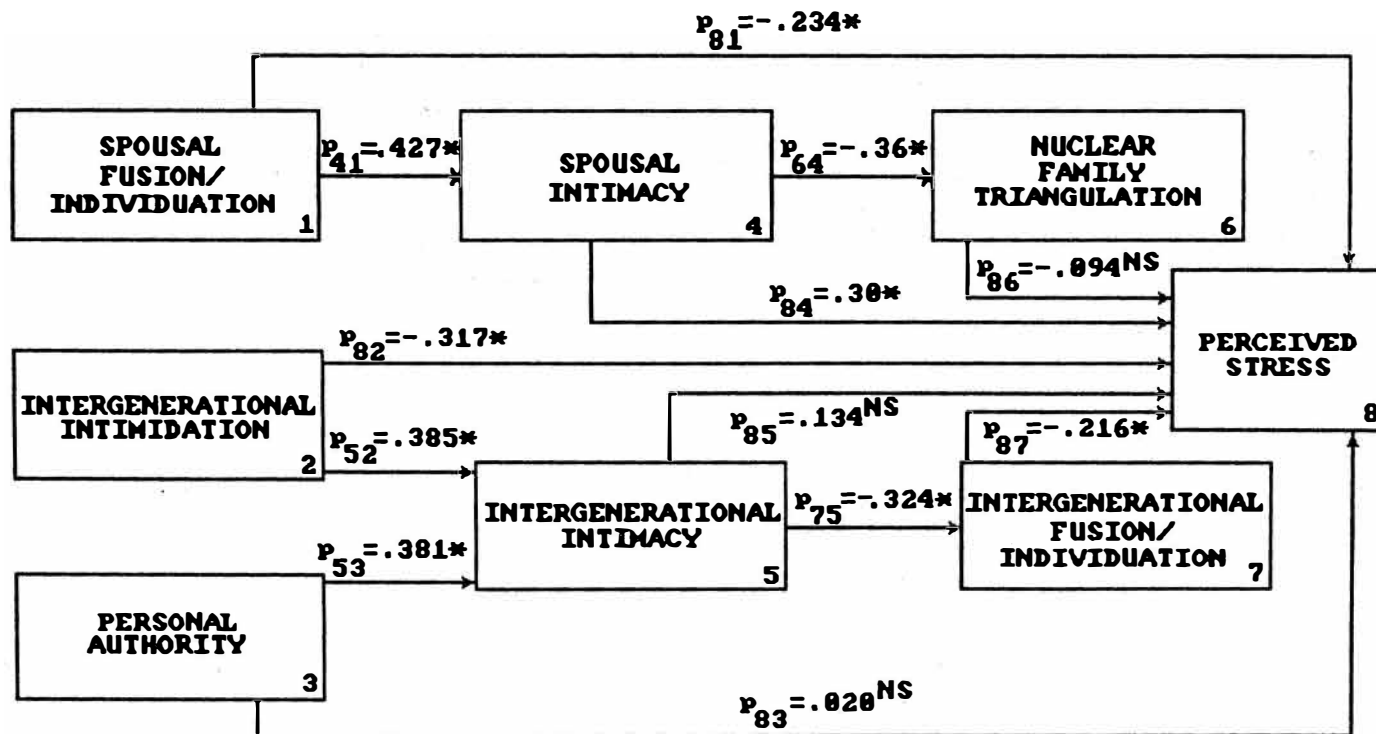


Figure 12. Multiple regression analysis with perceived stress as the dependent variable.

.020 which was not significant in the equation ($p = .865$). The beta for the path between perceived stress and intergenerational fusion/individuation was $-.216$ which was significant in the equation ($p = .056$). The beta for the path between perceived stress and intergenerational intimidation was $-.317$ which was significant in the equation ($p = .007$). Beta for the path between perceived stress and intergenerational intimacy was $.134$ which was not significant ($p = .272$).

Also entered as independent variables were nuclear family triangulation, spousal intimacy, and spousal fusion. The beta for spousal fusion/individuation was $-.234$ which was significant in the equation ($p = .050$). Beta for nuclear family triangulation was $-.094$ which was not significant in the equation at ($p = .405$). Beta for the path between perceived stress and spousal intimacy was $.30$ which was significant in the equation ($p = .019$) (see Figure 12).

Summary of Findings

The final model is represented in Figure 13. The dependent variable was current health. Entered as the independent variables were perceived stress, intergenerational intimidation, spousal intimacy, spousal fusion/individuation, and intergenerational fusion/

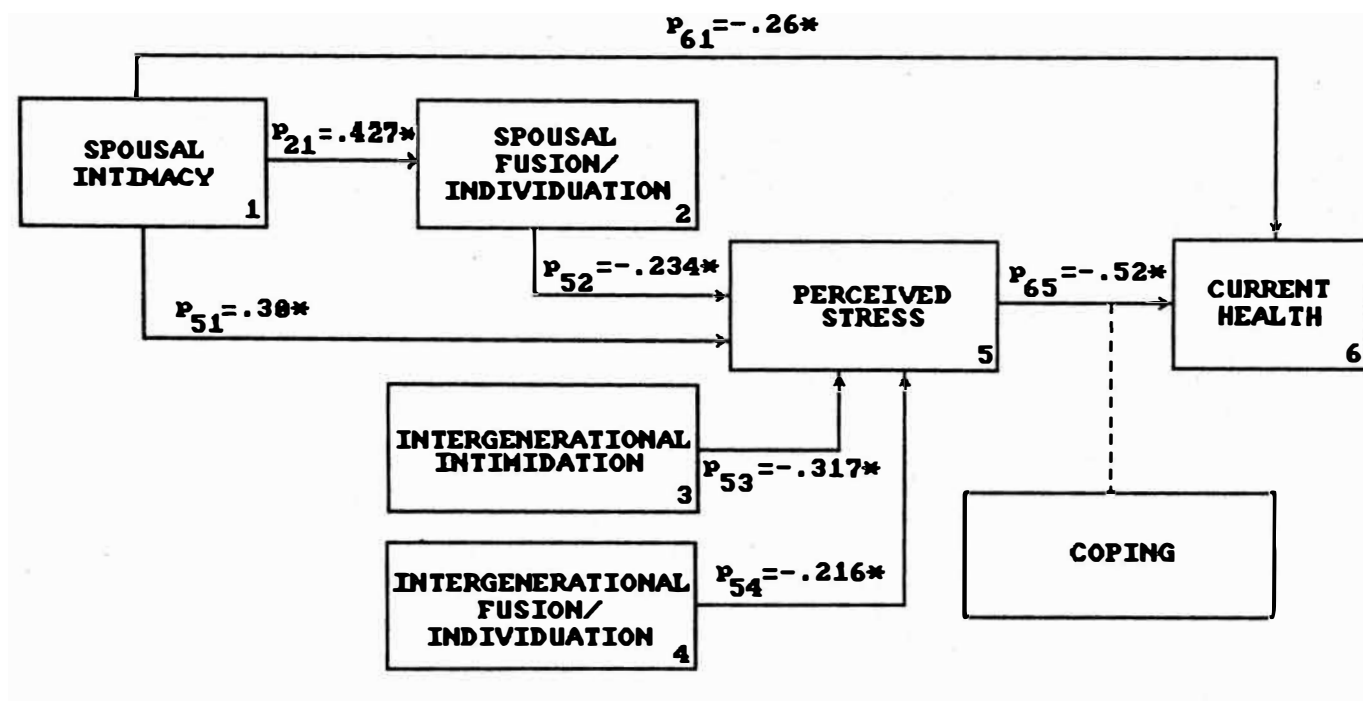


Figure 13. Multiple regression analysis with current health as the dependent variable.

individuation. The results were $R^2 = .379$, Adjusted $R^2 = .335$, $F = 8.553$, $p = .000$. The beta weight for the path between current health and perceived stress was $-.523$ which was significant in the equation ($p = .000$). Beta for the path between current health and intergenerational intimidation was $-.046$ which was not significant in the equation ($p = .649$). The path between spousal intimacy and current health was $-.260$ which was significant in the equation ($p = .027$). Beta for the path between spousal fusion/individuation was $.153$ which was not significant ($p = .166$). The beta for the path between intergenerational fusion/individuation was $-.083$ which was not significant ($p = .424$) (see Figure 13).

Using only significant betas there are two direct paths to current health. The two paths are spousal intimacy and perceived stress. All other paths to current health are indirect paths. The indirect paths are as follows:

1. Spousal intimacy to spousal fusion to perceived stress to current health.
2. Spousal intimacy to perceived stress to current health.
3. Intergenerational intimidation to perceived stress to current health.

4. Intergenerational fusion/individuation to
perceived stress to current health.

CHAPTER V

SUMMARY OF THE STUDY

A summary of the study is presented in Chapter V. The results of the data analysis are briefly presented, and the findings and conclusions are discussed. The chapter concludes with a discussion of the implications of the findings and recommendations for further study.

Summary

Relationships between key concepts in the two generational family system, perceived stress, and the current health of the caregiver of the older person were tested. Additionally, path analysis techniques were used to evaluate the adequacy of the proposed theoretical framework. The theoretical propositions tested were:

1. The greater the intergenerational family relationships of the adult caregiver of the older person, the less the perceived stress in the adult caregiver of the older person.

2. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

3. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

Questionnaires were mailed throughout the United States to caregivers of persons 55 years of age or older. An available sample resulted in 76 questionnaires which were used in the study.

Participants completed four questionnaires: (a) the Demographic Form designed by the researcher; (b) the Personal Authority in the Family System Questionnaire (Bray et al., 1984); (c) the Perceived Stress Questionnaire (Cohen et al., 1983); and (d) the Current Health Self-Report Inventory (Davies & Ware, 1981).

In the study, the alpha coefficients on the Personal Authority in the Family System Questionnaire subscales ranged from .56 to .95. On the Perceived Stress Questionnaire Cronbach's alpha was .89 and on the Current Health Scale Cronbach's alpha was .91.

Utilizing path analysis techniques the major concepts identified were intergenerational family relationships, perceived stress and current health. The two direct paths to current health were spousal intimacy and perceived stress. There were four indirect paths to current health. The indirect paths to current health were:

1. Spousal intimacy through spousal fusion through perceived stress to current health.
2. Spousal intimacy through perceived stress to current health.
3. Intergenerational intimidation through perceived stress to current health.
4. Intergenerational fusion/individuation through perceived stress to current health.

Discussion of Findings

The findings of the study are discussed in relation to the hypotheses tested. The hypotheses are grouped for the discussion according to significant findings and nonsignificant findings. To facilitate readability of the discussion of significant findings, hypotheses are numbered in the same manner as in Chapter IV. The discussion of findings is followed by a discussion of the model.

Hypothesis 1.2

A relationship significantly different from zero was indicated between the scale of Perceived Stress and the subscale score of Intergenerational Fusion/Individuation ($r = -.3675$, $p = .001$). Articles found in the literature on intergenerational family relationships are anecdotal and not based on research studies. Simos (1973) reported much

of what we claim we know about relationships between parents and their adult children is based on myth rather than on fact. Simos' report is 17 years old, but seems to be very much true for the current decade.

Bray and Williamson (1987) indicated intergenerational fusion/individuation assesses the degree of enmeshment or extreme closeness on one end of the continuum and the degree of differentiation or uniqueness from parents on the other end of the continuum. The level of fusion reflects the degree of unresolved emotional attachment to the parental family. This fused undifferentiated person functions in a dependent, emotionally reflective, semi-automatic, or irrational manner in relationships (Bray & Williamson, 1987).

Fusion from a psychological point of view refers to how emotionally stuck together persons are in a relationship. An individual with a high level of fusion does not have a clear sense of self as an individual and tends to operate as emotionally reactive. These emotionally reactive persons are likely to develop symptoms of stress (Bray & Williamson, 1987). The findings of the current research study support Bray and Williamson's (1987) findings that fused individuals tend to develop symptoms of stress. In the present study, as the caregiver of the

older person's stress increased the caregiver tended to operate in an emotionally reactive and fused state. Dunn and Galloway (1986) identified some of the stressors for the caregiver as role reversal, autonomy, and reopening of old wounds which are related to a fused state or individuated state.

Hypothesis 1.3

A relationship significantly different from zero was indicated between the Perceived Stress scale and the Spousal Intimacy subscale score ($r = .2948$, $p = .007$). Lewis et al. (1976) defined intimacy as the ability to be close to another person while maintaining clear boundaries of one's identity. Bray and Williamson (1987) indicated intimacy is a type of voluntary fusion which can be terminated or initiated at the discretion of the individual. Caregivers of the older person who had higher perceived stress had a greater degree of spousal intimacy. At first glance the findings seem opposite of what might be found. However, after further consideration it is apparent that as the caregiver experiences increased perceived stress due to the caregiving situation, there is an increased need for spousal intimacy so the caregiver might have a feeling of support by the spouse.

Hypothesis 1.5

A relationship significantly different from zero was indicated between the Perceived Stress scale and the subscale score of Nuclear Family Triangulation ($r = -.3210$, $p = .007$). Individuals deal with the instability of a relationship by triangulating in a third person to decrease the anxiety or stress in the dyad (Bowen, 1985). Bowen stated individuals form triangles to act out emotional issues. The higher the level of anxiety and stress, the more intense is the automatic triangulation in the family. The present study also found as the caregiver's perception of stress increased, there was increased triangulation between the caregiver and his/her spouse and children. This was indicated by a lower score on the Nuclear Family Triangulation scale.

Hypothesis 1.7

A relationship significantly different from zero was indicated between the Perceived Stress scale and the Intergenerational Intimidation subscale ($r = -.2800$, $p = .008$). Several studies refer to issues which are intergenerational family issues and are areas that require intervention. Studies reviewed, however, do not discuss the relationship between stress and intergenerational issues with one exception. Sassen in 1985 indicated the

presence of old parent-child conflicts and the difficulties of meeting an elder's emotional needs are probably among the chief sources of stress in the care-giving relationship.

Intergenerational Intimidation refers to the sense of intimidation from one's parents as indicated through the feeling that one does not have the freedom to make one's own life decisions (Bray & Williamson, 1987). Bray and Williamson asserted living with intimidation from the parental dyad indicates the perception of low power in the relationship and feelings and behaviors of a dependent nature, thus leading to fear and anger in the adult offspring. An inverse relationship was found between perceived stress and intergenerational intimidation. Therefore, the caregiver who perceives the parental relationship to be intimidating would be unable to control stress levels.

Hypothesis 1.8

A relationship significantly different from zero was indicated between the scale of Perceived Stress and the subscale score of Personal Authority ($r = .2027$, $p = .042$). Feinauer et al. (1987) in a study between the elderly and their adult children found the most common problem was lack of communication. Herr and Weakland (1979) reported old

age is characterized by dramatic changes in strength and power, as well as conflict with the middle generation. Because of these problems the older aged generation are often scapegoats for the middle generation. Bray and Williamson (1987) indicated the relational patterns existing between the adult and the older parent is the focus of attention, the behavior that needs to change, and is consequently the point of intervention.

The Personal Authority subscale assesses one's comfort level with discussing typically sensitive topics with one's parents and the actual practice of holding these discussions. Personal Authority is on a continuum with personal authority at one pole and intergenerational intimidation at the other end. An individual with personal authority is connected and intimate with the family of origin, while simultaneously acting from a differentiated position within the family of origin (Bray et al., 1984; Bray & Williamson, 1987). In the present study, the greater the perceived stress by the caregiver of the older person, the greater the personal authority or intimate interactions with parents while maintaining an individuated state.

Hypothesis 2.3

A relationship significantly different from zero was indicated between the Current Health scale and the subscale score of Spousal Intimacy ($r = -.3300$, $p = .003$). Spousal intimacy is a type of voluntary fusion which can be terminated or initiated at the discretion of the individual. In the present study, the more positive the assessment of the current health of the caregiver the less the degree of intimacy with the caregiver's spouse. No studies have been found by the researcher in this area, but apparently the caregiver has a decreased need for spousal intimacy when assessment of current health is positive.

Hypothesis 2.5

A relationship significantly different from zero was indicated between the Current Health scale and the Nuclear Family Triangulation subscale score ($r = .3379$, $p = .004$). Nuclear family triangulation occurs when an individual is attempting to deal with the instability of a relationship by triangulating in a third person to decrease the anxiety or stress in the dyad (Bowen, 1985). The present study found the more positive the assessment of the current health of the caregiver of the older person, the less the need for triangulation between the caregiver and spouse and/or their children.

Hypothesis 3

A relationship significantly different from zero was indicated between the Perceived Stress scale and the Current Health scale ($\underline{r} = -.5724$, $\underline{p} = .000$). According to Munro et al. (1986), the closer a correlation coefficient is to +1 or -1, the stronger is the relationship between the two variables. The authors proposed an \underline{r} of .50 to .69 indicates a moderate relationship. Therefore, there is a moderate inverse relationship between perceived stress and the current health of the adult caregiver of the older person.

Cohen (1978) suggested the Perceived Stress questionnaire could be used for examining the role of nonspecific appraised stress in the etiology of disease. In 1986 Cohen reported a correlation between the perceived stress questionnaire scores and physical symptoms.

Cohen and Williamson (1988) reported there is an association between perceived stress and illness symptoms and a wide range of health behaviors. The authors found elevated perceived stress scores were associated with (a) shorter periods of sleep, (b) infrequent consumption of breakfast, (c) smoking cigarettes, (d) decreased frequency but increased quantity of alcohol consumption, (e) less frequent physical exercise, and (f) increased frequency and

variety of illicit drug use. Robinson (1983) reported stressors for the caregiver are sleep disturbance, physical strain, inconvenience, family adjustments, demands on time, change in personal plans, emotional adjustments, financial strain, emotional behaviors, work, and adjustments and feelings of being overwhelmed.

The specific causes of declining health of the adult caregiver of the older person have not been explored. Only isolated studies are found in the literature on the health of the caregiver. Horowitz and Dobroff (1982) found a decline in health in 74% of spouses as a result of caregiving and a negative effect on the health of 33% of adult child caregivers. Goldstein et al. (1981) concluded the majority of caregivers experience role fatigue and many caregivers perceive that the caregiving role adversely affects their own physical and mental health. Pratt et al. (1985) found burden scores were significantly related to the caregiver's health status. The caregivers who rated their current health as good to excellent had significantly lower burden scores than did caregivers rating their health as fair to good.

Chenoweth and Spencer (1986) reported 21% of caregivers became ill or injured while giving care. Archbold (1980) from her study indicated most of the

caregivers had some health problems related to the role of caregiver of the elderly. Dellasega (1989) found only 27% of the caregivers in the study said caregiving had adversely affected their health. Of the 132 participants in the study, however, 58% reported health problems.

Killeen (1986) indicated there is a lack of research in the area of the caregiver, their ways of coping, and the use of health promotion activities. Killeen reported an inverse relationship between perceived stress scores and the caregiver's subjective assessment of current health ($r = -.19$). As stress scores increased, there was a decrease in the caregiver's current health. The findings in the present study on the caregiver of the older person were found to be the same as those of Killeen.

Findings Which Did Not Reach Statistical Significance

Ten of the hypothesized relationships were found to not correlate in a statistically significant manner. The relationships were: Perceived Stress and Spousal Fusion/Individuation ($r = -.1421$, $p = .122$); Perceived Stress and Intergenerational Intimacy ($r = .1381$, $p = .134$); Perceived Stress and Intergenerational Triangulation ($r = -.0028$, $p = .491$); Current Health and Spousal Fusion/Individuation ($r = .1051$, $p = .193$); Current

Health and Intergenerational Fusion/Individuation ($r = .1831$, $p = .058$); Current Health and Intergenerational Intimacy ($r = -.0089$, $p = .471$); Current Health and Intergenerational Triangulation ($r = -.1242$, $p = .157$); Current Health and Intergenerational Intimidation ($r = .0900$, $p = .223$); Current Health and Personal Authority ($r = -.1486$, $p = .102$); and selected Demographic Variables and Current Health.

In the present study both current and past caregivers were included in the research. This may have contributed to the findings in this section. Caregiver satisfaction, however, was the focus of a study by Worchester and Quayhagen (1983). The purpose of the comparative correlational study was to identify variables predictive of satisfaction in the caregiving role, and to determine differences between past and current caregivers as potential precipitators of institutionalization of the elder. Both past and current caregivers were in agreement on the activities generating stress, but in each activity the past caregivers perceived the situation as more stressful than the current caregivers. Including past and present caregivers in the present study may have contributed to nonsignificant findings, however, Worchester

and Quayhagen's (1983) study suggests this should not have affected the present study.

Possible reasons for not finding a statistically significant relationship may also include the nature of the sample which was predominantly female. It was expected there might be no significance due to the lack of variation within the sample since 83% of the study participants were female. The percentage of female participants in this study on caregivers is consistent with previously reported findings. Goldstein et al. (1981) examined the caregiving role through observations and interviews of 90 randomly selected caregivers. Over 80% of the caregivers were related to the older person being cared for and of these caregivers, 60% were women.

In the present study, 43.4% of the caregivers reported their household incomes as more than \$40,000. Worchester and Quayhagen (1983) reported income did not contribute significantly to caregiver satisfaction. In other studies, such as Robinson and Thurnher (1979), subjects were distributed evenly across socioeconomic levels. Baines (1984) collected data from a nonrandom sample of 50 family caregivers for a descriptive study. The second greatest concern for 64% of the caregivers was financial. In the study by Chiriboga et al. (1990), 255 adult children were

included in the analysis. Twenty-seven percent of the sample reported an income of \$45,000 and over. Nine percent felt they did not have enough money to make ends meet and one-third had just enough to get by. The authors reported adequacy of finances played a minor but beneficial role in the morale of caregivers. Chiriboga et al. (1990) also found finances and the gender of the caregiver were significantly associated with depression. It is possible in the present study that participants in the higher socioeconomic levels can hire help to assist in the caregiving role, thus not experiencing a high level of stress or declining health.

Robinson (1983) reported there was no relationship between degree of stress and gender of the caregiver, or type of caregiver (spouse, adult child, friend). The present study also found no relationship between stress and the gender of the caregiver or the relationship of the caregiver to the older person (spouse, son, daughter, neighbor, relative, friend, or other). Cantor (1983) on the other hand found a significant relationship between closeness of bond between caregivers and elders being cared for and the amount of stress reported.

Difficult to find in the literature are studies measuring intergenerational intimacy or intergenerational

triangulation in relationship to the perceived stress of the caregiver of the older person. Dunn and Galloway (1986) reported the stressors for the caregiver created by parent/adult interaction are role, reversal, autonomy, reopening of old wounds, creation of new wounds, loss of freedom, additional decision-making responsibilities, and shared living arrangements. These stressors can affect intergenerational intimacy and intergenerational triangulation; therefore, it was surprising in this study there was not a correlation between stress and intergenerational intimacy or intergenerational family triangulation.

Dunn and Galloway (1986) further indicated intrapsychic stressors for the caregiver are attributed to deteriorating health. One of these stressors is marital dysfunction. This could be related to spousal fusion/individuation. In the present study, however, there was no correlation between spousal fusion/individuation and the perceived stress of the caregiver.

Miller (1981) reported the necessity for constant negotiations among the generations are required over the issue of autonomy. Personal authority in the family system is defined by Williamson (1982) as having an intimate interaction with a parent, while maintaining an

individuated state. The findings, therefore, that there was no statistically significant relationship found between the current health of the caregiver and personal authority in the family system was unexpected by the researcher.

Conclusions

Theoretical Model

The present research was based on a theory developed by the researcher. The propositions tested in the present study were:

1. The greater the intergenerational family relationships of the adult caregiver of the older person, the less the perceived stress by the adult caregiver of the older person.

2. The greater the intergenerational family relationships of the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

3. The greater the decrease in the perceived stress by the adult caregiver of the older person, the greater the current health of the adult caregiver of the older person.

The adequacy of the theoretical model was evaluated by appropriate path analysis techniques. The initial model generated by the researcher is shown in Figure 2. From the initial model developed by the researcher the potential

model was developed from the zero correlation matrix using significant r 's of .3 or above Figure 5. Multiple regression was utilized to develop the final model by solving the paths between variables. As a result of path analysis the model had two direct paths to current health and four indirect paths to current health (Figure 13). The variables of spousal intimacy, spousal fusion/individuation, intergenerational intimidation, intergenerational fusion/individuation, and perceived stress were retained as independent variables. Current health was retained in the model as the dependent variable. The variables not retained in the model were all demographics, intergenerational intimacy, nuclear family triangulation, intergenerational triangulation, and personal authority.

The inverse relationship between perceived stress and current health was not a surprise to the researcher as the relationship has been documented in the literature. The surprise to the researcher, however, was the more positive the assessment of the current health of the caregiver, the less the degree of intimacy with the caregiver's spouse. Intimacy defined by Lewis et al. (1976) is the ability to be close to another person while maintaining clear boundaries of one's identity. Bray et al. (1984) indicated

intimacy is comprised of trust, love, fondness, self-disclosure, and commitment. Bray and Williamson (1987) further stated intimacy is a voluntary fusion which can be initiated or terminated at the discretion of the individual. This particular finding needs further investigation as it would seem a more positive assessment of current health would give the caregiver the freedom to pursue a more intimate relationship with the spouse instead of less spousal intimacy.

Spousal intimacy has a direct relationship to perceived stress. Caregivers who reported higher perceived stress also reported a greater degree of spousal intimacy. Spousal intimacy also has a direct relationship to spousal fusion/individuation which is then related to perceived stress. What this means is as the caregiver operates in a more intimate relationship with his/her spouse, there is a high degree of individuation, and the caregiver will report less perceived stress.

Intergenerational intimidation and intergenerational fusion/individuation each have a direct relationship to perceived stress. The researcher found the more the caregiver experienced personal intimidation by his/her parents, the more perceived stress the caregiver reported. The findings also indicated the more fusion the caregiver

experienced in the relationship with the older person being cared for, the more stressed the caregiver was. This was supported by Bray and Williamson (1987) when the authors stated persons with a high level of fusion do not have a clear sense of self as individuals and operate as emotionally reactive. These emotionally reactive persons are more likely to develop symptoms of stress.

The model in Figure 13 depicts that spousal intimacy, spousal fusion/individuation, intergenerational intimidation, intergenerational fusion/individuation have direct and indirect effects on current health of the caregiver of the older person. The model indicates that spousal and intergenerational relationships are important factors in the current health of the caregiver.

Instruments

The Current Health Questionnaire and the Perceived Stress Questionnaire were simple to complete and apparently presented participants in the study no difficulties. The Personal Authority in the Family System Questionnaire presented problems for several of the participants in the study. All 15 questionnaires not entered into the study were incomplete because of questions not answered on the Personal Authority in the Family System Questionnaire. The unanswered questions were in regard to the caregiver's

mother and father and sexual issues related to parents and/or spouse.

The researcher would use all three instruments again in future studies. The Current Health Questionnaire and the Perceives Stress Questionnaire are short, easy-to-complete, and had good reliability in the present study. The Personal Authority in the Family System Questionnaire was difficult for some caregivers to complete. In fact, one caregiver called the researcher for clarification and another typed several pages of comments regarding the instrument. Based on incomplete questionnaires, the caregivers who seemed to have the most difficulty completing the questionnaires were those individuals who were over 65 years of age. Despite these comments and lack of completion of the Personal Authority in the Family System Questionnaire by some caregivers, the researcher would use the instrument again for follow-up studies. Two reasons for continuing use of the questionnaires are:

1. Only 15 of 91 participants did not complete the questionnaires.
2. There is not another instrument in the available literature that measures intergenerational family relationships.

Consideration by the researcher was given to eliminating some of the orthogonal scales on the Personal Authority in the Family System Questionnaire in future studies. Five of the eight orthogonal scales were statistically significant when correlated to perceived stress. The three scales that were not statistically significant were spousal fusion/individuation, intergenerational triangulation, and spousal intimacy. Two of the eight orthogonal scales were statistically significant when correlated to current health. The two scales were spousal intimacy and nuclear family triangulation. The scales that were not statistically significant were Personal Authority, Intergenerational Intimidation, Intergenerational Triangulation, Intergenerational Intimacy, Intergenerational Fusion/Individuation, and spousal Fusion/Individuation.

The researcher recommends all eight orthogonal scales be included in future research for two reasons. The first reason is 39.5% or 30 of the participants in the present study were not married and several scales are related to the caregiver's relationship with his/her spouse. Further, the researcher found no studies using the Personal Authority in the Family System Questionnaire with the participants as caregivers of an older person.

Implications

The proposed model is an important piece of research to build on for the future because of the societal changes in the 21st century. The number and proportion of individuals over 55 years of age has increased, the size of the nuclear family has decreased, and advances in health care have enabled people to live longer after the onset of chronic disease and disability. The average American citizen has more living parents than children and that is changing the family psychologically, emotionally, and financially (Beck, 1990). As a result of the changes in our society, the number and proportion of family members and friends expected to provide care for the older person will increase. Many family members and friends are investigating alternatives to acute care facilities. Some of the alternatives are providing care at home, placing an individual in a nursing home, or providing care at a distance. In any of these situations the family members and friends are still the primary caregivers. The impact on the individual who assumes the role of primary caregiver is tremendous. The caregiver experiences new demands and stressors that affect physical and mental health of self.

Specific causes of declining health of the adult caregiver of the older person have not been explored. The

articles found in the literature are anecdotal and there seems to be no connecting theme or framework for any of the studies that have been done in this area. Continued research in nursing, therefore, is a necessity as there is a graying of America that will require many more caregivers for the older person.

As much of the focus is changing in nursing to community nursing, it is important that nurses be well informed on how to educate caregivers. Having informed nurses for educating caregivers can only be accomplished if there is continued research in the area centered around a theoretical framework.

With regard to the application of these findings to the practice of working with caregivers of the older person and families of caregivers, this study has shown a relationship between concepts from intergenerational family theory, perceived stress, and current health of the caregiver of the older person. The clinical nurse specialist in psychiatric mental health nursing should consider when working with caregivers of the older person that family of origin issues are very important and may be affecting the caregivers' perceived stress level and current health. Psychiatric clinical nurse specialists must begin to work with families of the caregiver of the

older person in a systems context. Short-term family therapy is a necessity, as well as family meetings to make decisions about the care of the older person. In the 21st century it is essential that the assessment by each nurse is based on the three key concepts identified in this study. The three concepts are intergenerational family relationships, perceived stress, and the current health of the caregiver.

Recommendations for Further Research

Based on the conclusions and implications of the study, the following recommendations are made:

1. Further investigate the significant relationship between perceived stress, intergenerational fusion/individuation, spousal intimacy, nuclear family triangulation, intergenerational intimidation, and personal authority.
2. Further investigate the significant relationship of current health to spousal intimacy and nuclear family triangulation.
3. From the findings of path analysis, further study needs to be focused on those variables which had a direct path to current health. The variables were spousal intimacy and stress. Just as important are those variables which had an indirect path to current health. These

variables were spousal intimacy, spousal fusion, intergenerational intimidation, and intergenerational fusion/individuation which each goes through perceived stress to current health.

4. Conduct a study on the coping behaviors of the adult caregiver of the older person and using path analysis techniques integrate the significant coping behaviors in the final model presented in Figure 13.

5. Replicate the study with a sample of persons whose level of education is more equally distributed from eighth grade through graduate degrees.

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APPENDIX A

Permission to Conduct Study

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

PROSPECTUS FOR DISSERTATION

This prospectus proposed by: Sharon Job

_____ and entitled:

Health of Adult Caregivers of the Older Person and Intergenerational Family Relationships

Has been read and approved by the members of (his/hers) Research Committee.

This research is (check one):

X Is exempt from Human Subjects Review Committee review because Study requirements are within Category I (no risk) according to the guidelines published in the Federal Register, 1-26-81, Part X, effective 7-27-81.

_____ Requires Human Subjects Review Committee review because _____

Research Committee:

Chairperson

Member

Member

Member

Celine A. Bush
Linda Harrington
Barbara Shepard
Robert R. Littlefield

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON
THE GRADUATE SCHOOL
P.O. Box 22479, Denton, Texas 76204 817/896-3400, 800-338-5255



September 26, 1990

Ms. Sharon Job
Box 22382
Denton, TX 76204

Dear Ms. Job:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Leslie M. Thompson
Dean for Graduate Studies
and Research

d1

cc Dr. Helen Bush

APPENDIX B

Letter to Participants of Study

September 15, 1990

Dear Caregiver:

I am writing to you to ask you to participate in a study on caregivers of the older person. A caregiver is an individual who provides informal, unpaid care for a person 55 years of age or older. Before describing the research and your potential role in the project, let me introduce myself. I am a doctoral candidate at Texas Woman's University and I am conducting this research as my dissertation study.

I would appreciate your participation in this project and am happy to answer any questions you may have regarding the study. Please feel free to contact me at the address or phone numbers listed below.

The goal of my research is to assess factors that influence the health of the caregiver of a person 55 years of age or older. Your participation in this study is voluntary. Your privacy will be protected and you may withdraw from the study at anytime.

If you agree to participate, complete the enclosed questionnaires (4) which will take 25-30 minutes. After completion of the instruments, place the packet in the enclosed stamped envelope. Only group results will be reported. Please do not write your name on any sheet of paper or on the envelope provided. Your consent to participate in this study is given by reading the explanation of the study, and by completing and returning the enclosed instrument packet. If you wish a summary of the results of the study, please complete the enclosed post card and mail it separately to the researcher.

Thank you for the time you took to complete the instruments and to return them to me.

Sincerely,

Sharon Job, M.A., M.S., R.N.
1000 North Bell, Apt. 108
Denton, Texas, 76201

(817) 387-1434 Night Phone
(214) 680-0400 Day Phone

APPENDIX C

Demographic Data Form

Part I. Please answer each question by placing your answer in the correct space found on the questionnaire.

1. Are you currently the primary caregiver for a person 55 or older? 1. ☐ Yes
☐ No

If the answer to #1 was no, go to question #2.
 If the answer to #1 was yes, go to question #3.

2. In the past, were you the primary caregiver for a person 55 or older? 2. ☐ Yes
☐ No

If the answer is No to question #1 and #2, discontinue completion of this questionnaire and return in the enclosed envelope.

3. What is/was the age of the older person? Age
4. Are/were you providing care or supervising care of an older person:
☐ In your home ☐ In a Nursing Home ☐ At a distance
5. How long have you been providing/did you provide care for the older person?
 Yrs Mo
6. Do you have children? ☐ Yes ☐ No
7. How are/were you related to the older person?
☐ Spouse ☐ Son ☐ Daughter ☐ Friend
☐ Neighbor ☐ Relative ☐ Other
8. What is your current age? Years
9. What is your gender? ☐ Male ☐ Female
10. What is your marital status? ☐ Married ☐ Div/Sep ☐ Single
☐ Widowed ☐ Remarried ☐ Cohabit
11. Do you work outside your home in a paid position? ☐ Yes ☐ No
 If yes, ☐ Full Time ☐ Part Time,
 If Part Time, # of hours worked/week?
12. Indicate your highest level of education? ☐ 8th grade or less ☐ 9th to 12th
☐ Tech. Prep. ☐ College Grad. ☐ Graduate or Professional Study
13. What is the total income for your household? ☐ 0-\$10,000
☐ \$10,001-\$20,000 ☐ \$20,001-\$30,000 ☐ \$30,001-\$40,000
☐ \$40,001-\$50,000 ☐ More than \$50,000
14. In what state do you reside? State?
15. What is your ethnic identification? ☐ White ☐ Black ☐ Hispanic
☐ Other

APPENDIX D

Personal Authority in the Family System Questionnaire

Information regarding this copyrighted instrument may
be obtained from:

James H. Bray, Ph.D.
Associate Professor
Baylor College of Medicine
One Baylor Place
Houston, Texas 77030
Phone: 713-798-7700

**BAYLOR
COLLEGE OF
MEDICINE**

One Baylor Plaza
Houston, Texas 77030

Department of Family
Medicine
(713) 798-7700

Address correspondence to:
5510 Greenbriar
Houston, Texas 77005

Dear Colleague,

Thank you for your request of the **Personal Authority in the Family System Questionnaire**. Enclosed are the materials that you requested.

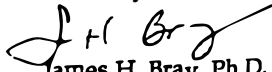
You are hereby granted permission to reproduce the **PAFS-Q** and answer sheet for your proposed project. You may not alter the original scales or use items from a single scale. Be sure to reference the 1984 article or manual in any articles.

If you plan to use the **PAFS-Q** in your thesis or dissertation, do not put a copy of the instrument and how to score it in your final manuscript. Indicate that people should contact me for copies of the instrument.

We may contact you in the future to receive your feedback on the instrument. Since this is the first printing we would greatly appreciate any feedback you have on the instrument and manual.

We will keep your name on our mailing list for future updates. Thank you for your interest in our work. If you have any questions feel free to write or call me at (713) 798-7751.

Sincerely,


James H. Bray, Ph.D.
Associate Professor

JHB:jb

APPENDIX E
Perceived Stress Scale

Information regarding this copyrighted instrument may be obtained from:

Sheldon Cohen
Professor
Carnegie-Mellon University
Department of Psychology
Carnegie-Mellon University
Pittsburgh, PA 15213-3890
Phone: 412-268-2781

Carnegie-Mellon University

Department of Psychology
Carnegie Mellon University
Pittsburgh, Pennsylvania 15213-3890
(412) 268-2781

January 12, 1990

Ms. Sharon Job
1000 North Bell, Apt. 108
Denton, Texas 76201

Dear Ms. Job:

You have my permission to use the Perceived Stress Scale in your research. I've enclosed a chapter that includes the scale and the psychometrics, norms, etc. I'd appreciate your letting me know how your work turns out. Good luck.

Sincerely,


Sheldon Cohen
Professor

Enclosure

SC/eo

APPENDIX F

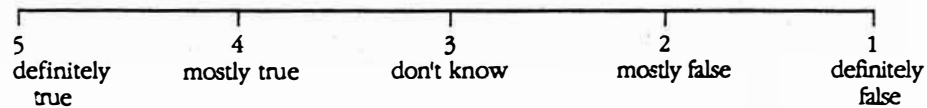
Current Health Questionnaire

CURRENT HEALTH SURVEY

Please read each of the following statements, and then use the following scale to indicate whether the statement is **true or false for you**. Some of the statements may look or seem like others, but each statement is different, and should be rated by itself.

THERE ARE NO RIGHT OR WRONG ANSWERS.

If a statement is **definitely true** for you, answer 5.
 If it is **mostly true** for you, answer 4.
 If you **don't know** whether it is true or false, answer 3.
 If it is **mostly false** for you, answer 2.
 If it is **definitely false** for you, answer 1.



- | | |
|--|----------|
| 1. According to the doctors I've seen, my health is now excellent. | 1. _____ |
| 2. I feel better now than I ever have before. | 2. _____ |
| 3. I am somewhat ill. | 3. _____ |
| 4. I'm not as healthy now as I used to be. | 4. _____ |
| 5. I'm as healthy as anybody I know. | 5. _____ |
| 6. My health is excellent. | 6. _____ |
| 7. I have been feeling bad lately. | 7. _____ |
| 8. Doctors say that I am now in poor health. | 8. _____ |
| 9. I feel about as good now as I ever have. | 9. _____ |

APPENDIX G

Postcard for Participants

A summary of the dissertation study is available to you. If you would like a copy of the summary, write your name and address below and mail the post card back to me. Do not return the post card with the questionnaire.

Name: _____

Address: _____

City: _____ **State:** _____ **Zip:** _____