Ego Development and the Experience of Burden among Caregivers of the Elderly

Theodore Constantine Bililies

Loyola University Chicago

Recommended Citation

https://ecommons.luc.edu/luc_diss/2576
EGO DEVELOPMENT AND THE EXPERIENCE OF BURDEN AMONG CAREGIVERS OF THE ELDERLY

by

Theodore Constantine Bililies

A Dissertation Submitted to the Faculty of the Graduate School of Loyola University of Chicago in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy
January 1989
ACKNOWLEDGMENTS

The author wishes to express his appreciation to several persons who have made this project possible.

To Dr. Patricia Rupert and the Department of Psychology at Loyola University of Chicago for their assistance in the completion of this work.

To Dr. Georgia Sassen and the Department of Psychiatry at the University of Massachusetts Medical School for their help in recruiting subjects.

To Dr. James Johnson and Dr. Joseph Durlak who patiently read and offered suggestions on many versions of the present work.

To Dr. Daniel F. Barnes, whose sponsorship and encouragement throughout this process was invaluable and deeply appreciated.

To Dr. Robert Kegan, whose wise guidance made the entire process easier.

To Ms. Eydie Kasendorf, whose precious support at critical junctures insured the success of this undertaking.

Finally, the author wishes to dedicate this dissertation to his parents, whose unfailing support of education has made this entire effort possible.
The author, Theodore Constantine Bililies, is the son of Charles Andrew Bililies and Alice (Anagnoson) Bililies. He was born September 25, 1958 in Boston, Massachusetts.

His elementary education was obtained in the public schools of Belmont, Massachusetts. His secondary education was completed in 1976 at the Belmont Senior High School, Belmont, Massachusetts.

In September, 1976, Mr. Bililies entered Harvard University, receiving the degree of Bachelor of Arts in General Studies with honors in June, 1980. While attending Harvard University, he was the recipient of the Harvard College Scholarship and wrote his Senior Honors Thesis in the Department of Psychology and Social Relations.

In September, 1980, Mr. Bililies began the doctoral program in clinical psychology at Loyola University of Chicago and obtained the degree of Master of Arts in clinical psychology in January, 1984. Mr. Bililies completed his pre-doctoral internship in clinical psychology at the Worcester State Hospital, Worcester, Massachusetts in August, 1984.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGMENTS</th>
<th>ii</th>
</tr>
</thead>
<tbody>
<tr>
<td>VITA</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>CONTENTS FOR APPENDICES</td>
<td>vii</td>
</tr>
</tbody>
</table>

Chapter

I. INTRODUCTION ............................................ 1

   Background of the Problem ................................ 1
   The Present Study ......................................... 4
   Limitations ............................................... 5

II. REVIEW OF THE LITERATURE .............................. 6

   Cognitive Theory ......................................... 7
   Cognition and Stress ...................................... 12
      Lazarus and the Definition of Stress ................. 12
      The Process of Psychotherapy ......................... 16
   Literature on Caregiver Burden .......................... 19
      The Consequences of Caregiving ....................... 19
      Related Studies ....................................... 22
   Measurement Issues and the Sources of Burden .......... 24
      Among Caregivers ....................................... 24
      The Quantitative versus Qualitative Dimension ..... 24
      The Role of Affection, Reciprocity, and Obligation 25
   Formal and Informal Supports and the Experience of Burden 30
      The General Context of Caregiving ..................... 33
   Ego Development and Stress ................................ 36
      The Construct of Ego Development ...................... 37
      The Sentence Completion Test ......................... 41
      Empirical Studies Using the Ego Development Measure 42
   The Current Investigation ............................... 45
      Statement of Experimental Rationale ................. 45
      Summary of Experimental Assumptions ................. 46
      Experimental Hypotheses ............................... 47
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Descriptive Characteristics of Caregivers</td>
<td>51</td>
</tr>
<tr>
<td>2. Means and Standard Deviations of Experimental Variables</td>
<td>60</td>
</tr>
<tr>
<td>3. Frequency Distribution of Caregivers According to Level of Ego Development</td>
<td>61</td>
</tr>
<tr>
<td>4. Step-wise Multiple Regression Analysis Predicting Burden (Factor I) from Independent Variables</td>
<td>62</td>
</tr>
<tr>
<td>5. Step-wise Multiple Regression Analysis Predicting Burden (Factor II) from Independent Variables</td>
<td>63</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>Title</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>A</td>
<td>Caregiver Burden Index</td>
</tr>
<tr>
<td>B</td>
<td>Activities of Daily Living</td>
</tr>
<tr>
<td>C</td>
<td>Sentence Completion Items for Women</td>
</tr>
<tr>
<td>D</td>
<td>Social Service Utilization</td>
</tr>
<tr>
<td>E</td>
<td>Stages of Ego Development</td>
</tr>
</tbody>
</table>
BACKGROUND OF THE PROBLEM

Over the last decade a proliferation of literature on the elderly has been published in this country. The elderly constitute a substantial portion of the nation's population, and their numbers are growing (U.S. Bureau of the Census, Projection, 1978). Conservative estimate projections for 50 years from now set the proportion of elderly at one-fifth of the population (Horowitz & Dobroff, 1982a).

Those who have studied the elderly have focused frequently upon the problem of chronic illness, a condition cited as the primary medical problem in the United States today (U.S. Office of Management and Budget, 1980). Chronic illness is especially relevant to the elderly population, since the elderly form the largest proportion of chronically ill sufferers (Anderson & Bauwens, 1981).

Since most health care facilities are geared toward treating short-stay acute illnesses, the care of the chronically ill, both emotional and physical, is most often left to others. This means that a family member, e.g., spouse, adult child, etc., will likely become a caregiver for a chronically ill elderly relative. The popular notion that older people are cast off by their families and are destined to live a life of lonely isolation has been convincingly exposed as a myth (Monk, 1979; Shanas, 1979; Silverman, Kahn, & Anderson, 1977). Most older Americans are certainly not rejected by their families. On the
contrary, it appears that contact between the generations has never been so frequent, in spite of our nostalgia for a slower and simpler past (Krout, 1988). This sentimental image purports that the extended family of the past, often living in one dwelling, experienced a kind of emotional closeness not found in today's families. In reality, however, the elderly of today are actually less isolated due to factors such as greater longevity, which increases the number of three and four generation families (Bengston & DeTerre, 1980).

Shanas (1979) remarks that contemporary adult children of elderly parents in need of care are anything but irresponsible toward their parents. It has been found that helpers feel an even more significant and stronger family orientation than do the elderly themselves (Litwak, 1985). Moreover, the notion of "dumping" an older person into an institution is not a prevalent trend. Shanas writes:

> In the U.S. most old people with children live close to at least one child often. Most old people see their siblings and relatives often, and old people, when either bedfast or housebound because of ill health, are twice as likely to be living at home as to be resident in an institution....The findings indicate that while old people no longer live in the same household with a child, they now live next door, down the street, or a few blocks away (1979; p. 6).

Living in close proximity with one or more elders, however, is not without negative consequences. As a result of the increased responsibility in caregiving, the emotional, physical, and financial stress of the caregivers has become an increasingly important area of study (cf. Horowitz & Dobroff, 1982a). The strain as a result of caregiving is considerable. For example, it has been demonstrated that
caregivers experience more frequent hospitalizations and medical difficulties than those who are not caregivers (Poulshock & Silverstone, 1982). The emotional and psychological strain of caregiving, in addition to the medical consequences, is equally important to note. Identified caregivers average nearly three times as many stress symptoms as non-caregivers and report using a significantly higher proportion of psychotropic medication (George & Gwyther, 1986).

The emotional strain which results from caregiving often affects one's marital relationship (Treas, 1977), relationships with siblings (Miller, 1981), as well as the functioning of the entire family unit (Chenoweth & Spencer, 1986). Frequently, the affective relationship of the adult child and parent deteriorates, and a once amicable relationship becomes bitter and antagonistic (Frankfather, Smith, & Caro, 1981; Horowitz & Dobroff, 1982a).

Caregivers of the elderly are predominantly female and frequently over the age of 65. Research indicates that only a minority utilize formal support services (Stone, Cafferata, & Sangl, 1987). Since caregivers are most often women, an added difficulty ensues if the woman is expected to work fulltime, maintain a home, take care of a family, and also care for an elder (Brody, 1981; Horowitz & Dobroff, 1982a). Ironically, adult children are called upon to provide care for their relatives at approximately the same time when their own children are leaving the home. The expectation, therefore, for a lighter load of fiscal and psychological responsibility is not met. This often leaves the new caregiver feeling resentful, overwhelmed, and frequently depressed.
The Present Study

This investigation sought to explore the relationship between a specific kind of stress, often referred to as "caregiver burden" in the literature on aging and gerontology, and intraindividual factors which may mediate the perception of caregiver burden, namely, the caregiver's level of ego development. Burden is defined by the caregiver's subjective appraisal of the caregiving context, and not by the context alone.

Although the work of researchers such as Brody (1977), Eyde and Rich (1983), Horowitz and Dobroff (1982a), Poulshock and Deimling (1984), and Stone et al. (1987) have illuminated some of the crucial variables and measurement issues involved in studying caregiver burden, intraindividual psychological factors have been neglected. There is a growing need for more studies examining the possible relationship of personality variables to the experience of burden; indeed, it has been recently noted that caregiver functioning may be better predicted by psychological variables and characteristics of the caregiving context than by factors such as the illness characteristics of the elder (Gwyther & George, 1986).

Building upon the multidimensional model of Poulshock and Deimling (1984) and the empirical findings of Horowitz and Dobroff (1982a; 1982b) (discussed in detail in later chapters), this investigation proposed that an individual's level of ego development directly influences his or her own subjective experience of caregiver burden. This investigation focused on the following four variables in order to explore the relationship between ego development and caregiver
burden. These four variables were: (1) degree of caregiver burden (dependent variable); (2) level of ego development in the caregiver; (3) degree of impairment in the elder; and (4) degree of social service utilization by the caregiver.

Limitations

A major limitation of this study is that it focused primarily on the caregiver's level of ego development, service utilization, and the degree of impairment in the elder. Other factors relevant to caregiving behavior such as financial resources, ethnicity, etc., are not incorporated into this investigation. These have, in part, been studied elsewhere and are beyond the scope of this investigation. Given the paucity of attention paid to psychological variables in the study of caregiver burden, this study is restricted primarily to the psychological domain.

Additionally, although the construct of ego development has been applied to such diverse areas of study as adolescent psychopathology (Noam, Hauser, Santostefano, Garrison, Jacobson, Powers, & Mead, 1984), interpersonal relationships in college (Loevinger, Cohn, Redmore, Bonneville, Streich, & Sargent, 1985), and poor marital relations (Nettles & Loevinger, 1983), there has been little research looking at a relationship between ego development and the experience of stress. There have been no studies examining a possible relationship between the specific form of stress known as caregiver burden and ego development.
This review is segmented into four areas. First, a review of cognitive theory assists the reader in understanding the general theoretical perspective adopted by this study. An understanding of the role of a person's cognitions in both the process of ego development as well as the experience of burden is central to this investigation. This perspective, with its emphasis on those cognitive activities which shape and determine human behavior, constitutes the critical point of departure from which the fundamentally cognitive processes of ego development and caregiver burden can be understood.

Second, this chapter reviews the area of stress research, emphasizing primarily those contributions which extend the cognitive perspective. This section presents stress as an experience formed and modified by one's own cognitive processes. This view is to be distinguished from a biophysical or environmental definition of stress, which is based on different sets of assumptions. Caregiver burden is a specific kind of emotional and physical stress unique to a given context. Therefore, a review of the literature on stress is necessary before a careful look at caregiver burden can be presented.

Third, the relatively small but growing literature on caregiver burden is reviewed, with special attention paid to the studies involving the psychological functioning of the caregiver and the
relationship of the caregiver to the elder.

The final section of this chapter examines the ego development literature and reviews studies involving this measure which are relevant to the current investigation. The assumptions and hypotheses of this experiment are explicitly stated at the close of this chapter.

Cognitive Theory

The notion that cognitions exert a powerful influence on human emotions and behavior is not a new or original idea. The whole thrust of modern cognitive psychology, particularly as it has been translated and applied in the theory and practice of psychotherapy, might be summed up in a phrase attributed to the first century Stoic philosopher Epictetus: "Men are not troubled by events themselves, but by the views they take of them." How people think about themselves and others can determine and predict their emotional reactions as well as their behaviors. Cognitive statements and beliefs serve as verbal symbols for both conscious and unconscious experience.

The pioneering work of Jean Piaget (1954) described and defined the person as fundamentally a cognitive being. Piaget's research articulated the discrete stages of cognitive change and development in which we are all, universally, participants. Piaget brought together the domains of philosophy (the constructive theme) and biology (the developmental theme) into a unique view of human beings (Kegan, 1982). Jean Piaget can be credited with promoting a dynamic, active, constructive view of people (Kegan, 1982; Piaget, 1954). In this sense, people do not merely passively register events in their
environment but actively and purposefully construe and construct meaning from environmental events. Thus, an individual's own unique cognitions — thoughts (conscious and unconscious), perceptions, schemas — are made and not merely discovered; they are constructions which reflect the person's own mental activities (Bodansky, 1961; Kaplan, 1961). This theoretical viewpoint asserts that a person is an active participant in construing and understanding his or her own experiences. This perspective underlies much of modern cognitive theory and psychotherapy.

The cognitive view in psychology has had many proponents and contributors in the twentieth century. While Piaget set the theoretical foundation for a view of the person as a cognitive, meaning-making organism, others have expanded this viewpoint into the areas of personality theory, psychopathology, and psychotherapy. George Kelly (1955) promoted the view that most human learning is cognitively mediated, and that people are active processing organisms able to represent their environment internally and not simply respond to it. Kelly saw humans as scientists; individuals wanting to predict and to control phenomena. Kelly's Personal Construct Theory proposed that people form fundamental constructs (cognitions) about their experience that are in essence ways of interpreting and construing events in their world. This is a cognitive process which relies on the fundamental rationalism of human beings and the need to make predictable sense of one's experience. This perspective can be compared to classical psychoanalytic theory, for example, which views
human beings as fundamentally irrational and which gives primacy to affect over cognition. Kelly's main contribution to psychology and psychotherapy, perhaps, is his theory that our beliefs and constructs, formulated by past experiences and our need to predict and anticipate the future, serve as filters through which we understand our world and structure our experience.

Aaron Beck (1976; 1979), like Kelly, developed a way of treating emotional disorders by examining and attempting to change an individual's cognitions. Beck described what he referred to as "automatic thoughts" which persons employ given certain stimuli from the environment. These automatic thoughts, i.e., the cognitions which mediate our affective state and environmental events, become the primary target and focus to enhance well being. These cognitions or automatic thoughts (loosely speaking, what Kelly refers to as a construct) can be about oneself or others. The primary postulate of the theory, known as Cognitive Therapy, is that events are represented and mediated by beliefs, thoughts and attitudes in the cognitive realm. The sum of one's beliefs constitute his or her personality. When behavior is disturbed, for example in the case of a person troubled by disabling anxiety, the therapist (according to Beck) should attempt to examine and to engage the person's beliefs which may be at the root of this disturbance.

Irving Bieber (1974; 1980) extended the cognitive perspective by forging a theoretical synthesis between cognitive therapy and psychoanalysis, which he termed Cognitive Psychoanalysis. Both
classical psychoanalysis and cognitive psychoanalysis are based upon cognitive processes in which knowledge, via a verbal exchange between therapist and client, is gained about one's experience and perceptions. Classical psychoanalysis, however, is based primarily upon an instinctual theory in which affect has primacy over cognition, and it is in the discharge of the repressed affects that psychological healing is possible. Affect, according to Freudian psychoanalysis, is master; cognition is a tool, via insight and interpretation, for discovering and repairing the pathological manifestations of instinctual development and existence (Bieber, 1980).

Cognitive psychoanalysis, on the other hand, is not based on an instinctual theory but rather on a cognitive one. Bieber describes the aim of cognitive psychoanalysis as the investigation of beliefs which underlie expectations of injury, in essence, beliefs which produce fear (1980). Many such beliefs are unconscious, and the traditional techniques of psychoanalysis and psychoanalytically-oriented psychotherapy are used to discover them. Because cognitive psychoanalysis is a cognitive process based upon a cognitive theory, psychopathology is viewed as the result of irrational beliefs and attitudes. These attitudes may be learned throughout the lifespan and, if gone undetected or untreated, can promote psychopathology. Bieber writes:

Classical psychoanalysis is a cognitive process that has an affect theory. Cognitive psychoanalysis is a cognitive process that has a cognitive theory and strategy. It is based on the assumption that therapeutic change occurs as a result of altering irrational beliefs. The theory
assumes that the adverse experiences that produce psychopathology are represented as beliefs linked to expectations of injury (fears). It also assumes that many such beliefs, when carried unchanged into adult life, become nonrational and that irrational belief systems determine inappropriate affects and the maladaptive attitudes and behaviors that constitute adult psychopathology (1980).

It is clear how cognitive psychoanalysis differs from classical psychoanalysis. It should be noted, however, that it is significantly different from the established cognitive therapies as well. This is because cognitive psychoanalysis seeks to discover the impact that unconscious fears and beliefs have on behavior. Most irrational beliefs are thought to be unconscious, which is substantially different from the the major assumption being made in cognitive therapy today (cf. Beck, 1976).

This section has sought to establish the theoretical context of the present investigation, namely, that of the cognitive perspective. Beginning with Piaget, psychologists of this century have examined and described cognitive processes and their role in human development, psychopathology, and psychotherapy. Several theorists, among them, Kelly (1955), Beck (1976), and Bieber (1980) have formed distinct schools of psychotherapy based upon the principle that cognitions mediate our experience. It is in the cognitive manifestation of that experience, i.e., our beliefs and attitudes, that we can have the most impact on changing and enhancing behavior. For this study, an understanding of the cognitive perspective is essential for two reasons: both caregiver burden and a caregiver's level of ego development reflect cognitive representations of his or her experience.
Cognition and Stress

This investigation begins with the fundamental premise that our cognitions about a situation in large part determine the affective response we experience. This affective response, in turn, can have a significant impact on our behavior. When individuals are asked to respond to a questionnaire about stress, for example, their responses are shaped by their cognitive appraisal of their current life situation. While the assessment on some objective criteria may be relevant to a person's stress level, what is most critical in the assessment of one's level of stress is his or her cognitive appraisal of what is currently happening. In other words, two people experiencing what may appear to an outside observer as the same event, in actuality, may interpret that event very differently. Hence, these two individuals may be experiencing widely divergent degrees of stress in response to the same event.

Lazarus and the Definition of Stress

It is essential that this investigation adopt an operational definition of what is meant by the terms "stress" and "burden". In the definition and elaboration of these terms, the work of Richard Lazarus (1966; 1970; 1975; 1981) is cited due to the relevance of his research involving cognitive appraisal and stress. Lazarus has articulated some of the psychological processes which make a person's encounter with the environment stressful, as well as having described certain self-regulation processes which can be brought to bear in the management of stress (Lazarus, 1981).
Lazarus refers to the "stress emotions", i.e., anger, guilt, depression, and fear, as products of the "adaptive commerce" between persons and their environment. This adaptive commerce reflects a two-way interaction between the individual's needs, motives, and level of psychological development on the one hand, and the environmental setting on the other. Lazarus' pivotal concept of cognitive appraisal is, essentially, the ongoing judgment of one's adaptive commerce with his or her environment (Lazarus, 1975; 1981). Once this cognitive appraisal is made, emotions result which determine physiological changes as well as overt behaviors. Lazarus writes:

Thus, the psychological processes of perception and judgement are crucial for emotion, and therefore ultimately play a role in psychosomatic disorders. The concept of cognitive appraisal expresses such judgement or evaluation of one's ongoing adaptive commerce. Emotions flow from the appraisal which, in turn, is determined by the continuous and constantly changing interplay between person and environment (1981, p. 162).

According to Lazarus, an individual's cognitive appraisal of a situation largely determines his or her subjective emotions and, consequently, the overall stress he or she may experience at any given moment. Lazarus divides the appraisal process into two phases: primary appraisal and secondary appraisal. Primary appraisal refers to how individuals evaluate stressful events, and secondary appraisal refers to how individuals evaluate their own coping resources and options (Lazarus, 1966). The outcome of this dynamic process of appraisal defines the level of stress experienced by the individual.

It is clear that there are multiple perspectives one might take in formulating an operational definition of stress. For example, stress has been viewed as a force emanating from one's environment and impinging on the individual. According to this view, the stress of
one's job, for example, reflects a group of forces which attack the individual from the external world (Meichenbaum, 1985). Another perspective is to view stress as the way an individual responds when confronted in a particularly demanding environment. If the former view is a "stimulus" view of stress, this view may be seen as a "response" view of stress. However, neither of these perspectives take into account the dynamic nature of the interaction of the person and his or her environment as does Lazarus' theory. Neither do these perspectives, in their approach to stress, account for the cognitive processes and personality variables which mediate stressful events. Stress is understood in this investigation as the person's cognitive appraisal of his or her environment as taxing and dangerous, and not solely as a property of the person or of the environment (Lazarus, 1966; Meichenbaum, 1985).

Lazarus' cognitive theory of stress and the importance of the subjective appraisal of one's environment builds upon the viewpoint articulated in the previous section. Human beings construct their own world as an active participant, and structure and make unique sense of their own experience. The constituents of one's cognitive appraisal at any given time are that person's perceptions, personality traits, and, generally speaking, those qualities reflective of the person's level of psychological functioning and development. This level of functioning may include one's level of ego development, and it is believed by this investigator that there may be a relationship between the process of cognitive appraisal and the concept of developmental stage. Lazarus notes:
we must concern ourselves with the various types of environmental social demands generating the stress emotion in the first place, as well as the personality characteristics of the person which lead to divergent appraisals of stressful encounters that are conducive to different emotions (1981; p.165).

The work of Lazarus includes the study of individual differences in cognitive processes. This work focuses on the influence that stress emotions have in driving the individual to generate differential coping strategies (Folkman, Schaefer, & Lazarus, 1979).

Lazarus maintains a view of stress which is interactional and cognitively mediated. The act of cognitive appraisal represents a set of psychological processes that mediate between the person and the environment (Folkman, 1984; Folkman et al., 1979; Lazarus, 1966). This process of cognitive appraisal, in turn, sets in motion a person's individual stress reaction, including specific emotions and behaviors which eventually are viewed as adaptive or nonadaptive.

An example from the literature on stress may better demonstrate Lazarus' theoretical construct of cognitive appraisal as a mediating force between people and their environment. Lazarus and Folkman (1984) noted that individuals can be taught to appraise stressful situations as falling into one of two categories: (a) situations where there is a realistic probability of changing the problem, or (b) situations where changing one's affective response to an unchangeable situation is preferred. Labelling these functions as "problem-focused coping" and "emotion-focused coping", Lazarus and Folkman were able to empower individuals to appraise a stressful situation and to select the most effective means of coping. This process requires one's cognitive capacities in both the appraisal and selection of one's own unique
The cognitive orientation of Lazarus' research generates a frame through which to view the thesis of this investigation. This thesis suggests that how one fundamentally constructs the world, i.e., his or her own level of ego development, directly informs one's cognitive appraisal of any given situation, e.g., caregiving for an elder. Ultimately, this appraisal will directly contribute to the person's emotional and physiological stress response.

The Process of Psychotherapy

Psychotherapists, such as Beck and Bieber, reflect the position that examining and changing a person's cognitions are paramount in order to effect a change in his or her behavior. For these theorists, as for others, the whole focus of psychotherapy is, essentially, cognitive (Bieber, 1980). This predilection is supported by theorists such as Lazarus for whom the phenomena of stress is primarily an internal event and for whom the stress emotions are largely determined by one's ongoing cognitive appraisal of any given situation.

Donald Meichenbaum (1977; 1983; 1985) has also promoted the cognitive perspective in psychotherapy and stress research. His own conceptual model for stress management, referred to as Stress Inoculation Training, emphasizes the cognitive/interpersonal context of stress. Building on the work of Lazarus, Beck, Folkman, and others, Meichenbaum views stress as a dynamic relationship, constantly changing and bidirectional, between the person and the environment (Meichenbaum, 1985). Like Lazarus, Meichenbaum conceptualizes this dynamic
relationship between person and environment as a transaction. "From a transactional perspective," Meichenbaum writes, "stress is defined as a cognitively mediated relational concept. It [stress] reflects the relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her well-being" (1985, p. 3). The notion that people are not victims of stress, but that one's own unique cognitions determine his or her own stressful emotions based upon his or her appraisal of any given situation is a view Meichenbaum supports and has extended into his own program of stress management.

Of primary importance for this investigation is the theoretical perspective which endorses a dynamic and mediational relationship between cognition and stress, and which, further, defines stress in terms of the individual's cognitive appraisal of a given situation. This perspective has direct relevance to the concept of ego development. For example, Folkman et al. (1979) discuss the problems faced when one's cognitive appraisal mechanism must rely on faulty, incomplete or uncertain information. Citing the virtual absence of research literature on the effects of ambiguity or uncertainty on stress and coping, these authors go on to note that "it would seem reasonable to expect that people vary in their ability to remain in a state of uncertainty without undue distress, in which case we would assume that information processing and coping would be differentially disrupted and differentially effective" (p. 280). These authors go on to cite Loevinger's (1976) research and her concept of ego development as a perspective harmonious with their own, i.e., that the tolerance of
ambiguity -- a characteristic of later levels of ego development -- is a feature inherent in the cognitive appraisal process (Folkman et al., 1979, p. 280). This point is discussed in greater detail in later sections of this review.

The relationship of stress to caregiver burden is simple enough to explicate. The term burden first appeared in the literature less than ten years ago (cf. Brody, 1981; Horowitz & Dobroff, 1982a) and refers to the subjective, frequently negative, effects of the caregiving experience. Burden is a term used in the literature to describe the specific kind of stress unique to the caregiving experience. The aforementioned discussion and definition of stress, then, can be thought of as synonymous with the concept of burden. These terms are, essentially, interchangeable (as are similar terms, such as "strain", "load", etc.) and do not reflect substantive differences.

This section has reviewed the work of Lazarus, Meichenbaum, and others who have contributed to an operational definition of stress which emphasizes the centrality of cognitive processes. Generally speaking, stress is an event one undergoes as a result of one's cognitive appraisal of the situation and of one's own resources. It is believed, although there are no specific empirical studies to support this belief, that the level of one's ego development contributes to the view one takes of one's situation in general, and of the critical process of cognitive appraisal in particular. This belief forms the basis of the present investigation.
Literature on Caregiver Burden

The Consequences of Caregiving

There can be virtually no doubt that caregiving for an impaired elder is a demanding and difficult experience, with potentially negative emotional and physical consequences for the caregiver (cf. Gwyther & George, 1986; Horowitz & Dobroff, 1982a). Caregivers soon realize that the physical needs of caregiving, though taxing, pale in comparison to the difficulties encountered when one must also meet the heightened emotional needs of the elder (Sassen, 1985). Although referred to by terms such as, "strain", "burden", "stress", or, more recently, "caregiver burden", this responsibility of providing emotional and physical assistance to a dependent and often infirm elder has been shown to hold negative outcomes for caregivers. Whether assessed by quantitative outcome measures, e.g., rate of declining health, or by qualitative means, e.g., open-ended interviews which tap attitudes and feelings for the elder, the experience of caregiving has been shown to impact significantly upon the lives of caregivers (cf. Cantor, 1983; Horowitz & Dobroff, 1982a; Ory, Williams, Emr, Lebowitz, Rabins, Salloway, Sluss-Radbaugh, Wolff, & Zarit, 1985; Poulshock & Silverstone, 1982; Reifler & Wu, 1982; Robinson & Thurnher, 1979).

As an example of the potentially negative consequences of caregiving, Horowitz and Dobroff (1982a) found an overwhelmingly significant increase in the illness rate (74%) among caregivers as a result of their new responsibilities. In a similar investigation, Adams, Caston, and Danis (1979) discovered that over 50% of the
caregivers surveyed responded that their responsibilities negatively affected their overall general health. Similarly, Eisdorfer, Kennedy, Wisniewski, and Cohen (1983) found that in over half the caregivers of dementia patients there was a significant depressive reaction according to accepted psychiatric criteria.

George and Gwyther (1986) reported that the mental health indicators administered to the sample of caregivers when compared to the sample of non-caregivers showed highly significant discrepancies. Caregivers reported nearly three times as many stress symptoms as the control group. General happiness and life satisfaction ratings were also lower for caregivers than for other samples. Further, George and Gwyther reported a significant increase in psychotropic drug use among caregivers than among non-caregivers (28% as compared to 19%). In the domain of interpersonal relations and socialization, this study found that "caregivers report substantially lower levels of participation than the comparison samples for all the objective indicators of social activities except church attendance" (George & Gwyther, 1986; p. 256). In a related paper, Gwyther and George (1986) call for more studies to understand "...caregiver burden in the context of the caregiver's own perceptions, personal characteristics, and social resources" (p. 247).

Horowitz and Dobroff (1982a), in addition to demonstrating an increase in negative health among caregivers, also found that a highly significant segment of their subjects reported increased feelings of depression and anxiety directly related to the caregiving experience. Depression has been noted by several researchers as an accompanying
hallmark of the caregiving experience (Lazarus, Stafford, Cooper, Cohler, & Dysken, 1981; Lezak, 1978; Stafford, 1980; Stever & Clark, 1982). Lezak (1978) identified special problems unique to caregivers, such as the breakdown of friendships, diminished outside activities, and the stresses experienced by the spouses of caregivers. Rabins, Mace, and Lucas (1982) presented results from their investigation that indicated that more than 85% of their sample of 55 caregiving families reported chronic fatigue, anger, and depression. Half of this sample also reported an increase in loss of friends, outside interests, and family problems.

Chenoweth and Spencer (1986) studied the experiences of caregivers of family members with Alzheimer's dementia. Their observations support the fact that caregivers often experience severe medical, psychiatric, and social consequences as a result of their role. Interestingly, Chenoweth and Spencer also found that for a minority of the caregivers and their families in their study, the experience of caregiving had a beneficial effect: bringing the entire family emotionally closer together. They write:

While most families described the effects of Alzheimer's disease as devastating to the patient and the family, a few said the experience had actually drawn the family closer together. ...Some commented on the tremendous challenge they faced and their pride in being able to meet each new crisis (p. 270).

Further:

In spite of the strain on friendships, several caregivers expressed the view that their experiences caused them to appreciate and value more fully each moment with their families and friends and to have more compassion for those with handicaps (p. 270).
Empirical observations such as this one are very relevant to the present investigation. This rare and somewhat counterintuitive finding, that a minority of people actually benefit from the caregiving experience, may indicate important intrapersonal influences among those persons who become caregivers. What factors might allow a minority of caregivers, in other words, the perspective to view a stressful and largely unpleasant set of responsibilities as opportunity for growth rather than tragic circumstance? Although Chenoweth and Spencer do not go on to discuss this observation in greater detail, the distinctly different cognitive and emotional response of a few caregivers to what is overwhelmingly viewed as an unpleasant and debilitating set of responsibilities is notable. This finding is as significant as the many other reports relating the negative consequences of caregiving. Findings such as these may imply the presence of certain pivotal factors in the psychological functioning of the caregiver which heretofore have gone undetected.

Related Studies

Other variables have been studied to understand differences among caregivers with respect to burden and the quality of elder care. For example, Krout (1988) looked at rural versus urban differences in elderly parents' contact with their children. This investigation set out to test the conventional wisdom that relationships among family members in rural areas are stronger and closer than in urban areas. Whereas "city living" is thought of as disruptive and an enemy to
enduring personal ties, one of the more durable images of rural America maintains that the intact, multigenerational family cares for its own (Krout, 1988). This study, contrary to expectation, found minimal differences between caregiving in urban versus rural areas. Burden was not associated with geographical proximity as much as it was associated with the relationship of the caregiver to the elder (e.g., child, spouse, etc.) and the extent of felt assistance from outside sources.

Other variables studied to understand the many dimensions of the caregiving experience include the comparison of particular relationships among family members who become caregivers, for example, comparing sons with daughters, husbands with wives, and so on (Adams, 1968; Fitting, Rabins, Lucas, & Eastham, 1986; Horowitz, 1985; Jackson, 1971; Streib, 1965; Zarit, Todd, & Zarit, 1986). These studies, in general, indicate that caregiving continues to be primarily the role of wives, daughters, and daughters-in-law. Only when there is not an available female sibling, for example, will a son take over caregiving responsibilities. Moreover, sons are more likely to provide less extensive support to their parents and are less adversely affected by caregiver burden than are daughters (Horowitz, 1985). Husbands are not as vulnerable as wives to the breakdown of the emotional boundaries necessary to remain relatively unaffected by the caregiver experience (Zarit, 1982; Zarit et al., 1986).
Measurement Issues and the Sources of Burden Among Caregivers

The Quantitative versus Qualitative Dimension

The measurement of caregiver burden has been accomplished in an inconsistent and variable manner from study to study (cf. Horowitz & Dobroff, 1982a; Rabins et al, 1982; Robinson & Thurnher, 1979; Sassen, 1986; Zarit, Reever, & Bach-Peterson, 1980). Empirical inquiries attempting to deal with the assessment of caregiver burden have utilized various theoretical models and measurement techniques. For example, Thompson and Dall (1982) divided caregiver burden into two components labelled "subjective stress" and "objective stress". Using this dichotomy, the authors sought to assess caregiver burden using a unidimensional model, i.e., stress is either a subjective or an objective experience.

The sources of caregiver burden or stress are many, and the investigations into the nature of caregiver burden emphasize both objective factors (e.g., amount of support from social service agencies) and subjective factors (e.g., the quality of the affective relationship between elder and caregiver). Poulshock and Silverstone (1982), for example, emphasize that a subjective approach to explaining and attenuating caregiver burden is necessary. They locate the source of relief to caregiver burden in the "affectional ties" between people, rather than in the number of nurses and home health aids the family receives. Consequently, their measurement tools are more qualitative (e.g., self-report questionnaires) rather than quantitative (e.g., objective indices of service use).

Horowitz and Dobroff (1982a; 1982b) examined several dimensions of the caregiving experience and measured many variables in the
caregiving context. They developed burden measures which were both quantitative as well as qualitative. These two types of measures approximate the objective/subjective dichotomy found in the research literature when studying sources of stress among caregivers. These researchers measured aspects of the caregiver's world such as health, frequency of exercise, and number of hospitalizations (objective events which are measured via quantitative means), as well as aspects of the elder-child relationship which provided increased stress for the caregiver (subjective experiences which require qualitative measures). In this way, these investigators sought to assess a caregiver's stress level most comprehensively.

**The Role of Affection, Reciprocity and Obligation**

Horowitz and Dobroff's (1982a; 1982b) report to the Department of Health and Human Services, entitled, "The Role of Families in Providing Long-Term Care to the Frail and Chronically Ill Elderly Living in the Community," is a significant contribution to the study of caregiving. These researchers examined many of the possible financial, social, contextual, and, to a lesser extent, psychological variables related to the caregiving experience.

Among the many variables measured, Horowitz and Dobroff identified the following variables in the course of their work which relate to the parent-child (or elder-caregiver) relationship: (1)
Affection and Reciprocity, (2) Familism, and (3) Attitudes toward older people and toward one's own aging. Though yielding statistical outcomes of mixed significance, the exploration of these variables helped inform other researchers in the field of the complex experience of caregiving and of the need to move beyond unidimensional models. Moreover, the study of the variables mentioned above convey the researchers' interest in the more subjective, less quantifiable, and more complex aspects of the caregiving experience.

The concepts of affection and reciprocity are part of the subjective and psychological world of the caregiver. These variables were studied for their possible role in mediating caregiver burden. Affection refers to the warm, loving ties which bind caregivers to their elders. Reciprocity is conceptualized in terms of "credits" earned by the parents for past assistance and support offered to the caregiver. This places the concepts of affection and reciprocity squarely in an historical context: high or low degrees of these factors grow out of the life history of the dyad. Although the definition of reciprocity might appear more obligatory than volitional, the authors clarify that reciprocity "...implies an acceptance of responsibility which is based on gratitude, as contrasted to an obligation which has been imposed by societal expectations" (p. 294).

The variable of affection demonstrates more clearly perhaps the authors' desire to assess the subjective aspects of caregiving:

The affective nature of the relationship has both past and present components and refers to the quality of the parent-child relationship as evidenced by feelings of emotional closeness to the parent and positive feelings toward the nature of their relationship (p. 294).
Both variables were believed to affect the motivation and level of burden experienced by the caregiver. Those caregivers with a high degree of reciprocity and affection, it was hypothesized, were thought to be more motivated and, consequently, to experience less stress in their role as caregivers. Due to their high degree of motivation and affection, these caregivers would perceive less of the caregiving tasks negatively, and thus report a lower degree of subjective distress than less highly motivated relatives.

The authors discovered a significant correlation in this direction ($r = .30, p < .001$). Affection was found to mediate the perception of negative consequences, at least during the initial phase of caregiving. Although the subjects would provide basic services to their relatives regardless of the affective relationship, the stronger the affective bonds were between caregiver and elder, the more the caregiver would strive to go "above and beyond" the basic expectations. Reciprocity was also correlated with caregiving activities ($r = .15, p < .05$). The more assistance the adult child received from the elder in the past, the more effort and assistance he or she would willingly donate to the elder in the present. Looking at the dyad in this way, the authors discovered a relationship between the adult caregiver's feelings and behaviors and their current caregiving activities. The authors concluded:

Overall, it is clear that caregiving does not emerge with a life of its own, but takes place within an historical context. Both the parent and the child enter the caregiving relationship with a history of interactions which come to play and which may either facilitate or impede the adult child in his/her attempts to fulfill filial responsibilities (p. 307).
The second variable explored by the authors which may be relevant to the psychological dimensions of the caregiving experience is that of familism. Heller (1970) first defined familism as "a social orientation in which the interests of the individual are subordinated to those of the family group" (p. 75). Familism, as a belief, was endorsed by the majority of subjects in the Horowitz and Dobroff study with respect to both caregiving and socializing activities. A large proportion of subjects believed that children had a duty to care for their parents when they were ill. Significantly, this same proportion of subjects reported that adult children had as much responsibility for their parents as for their own children. Thus, familism, the belief that family needs surpass individual needs, may help in understanding the motivation for caregiving.

Lastly, Horowitz and Dobroff (1982a) surveyed their subjects' attitudes toward older people and toward their own aging. The results were largely nonsignificant, indicating that whatever qualitative influences there may be on caregiving behavior, how one feels about illness, impairment, and loss may be less important than other factors.

A recent paper by Jarrett (1985) further explores the role of affection, reciprocity, and obligation in caregiving dyads. Jarrett examines the strain on filial bonds which caregiving can bring. He argues for a more dynamic view of families as systems of rights and obligations, not just as a cluster of individuals. Jarrett investigated the question, Are closeness and caregiving mutually exclusive, given the burden of caregiving and the motivational importance of closeness (affection)? Jarrett's findings are similar to
Horowitz and Dobroff's results in that affection was found to be often an initial motivator for caregiving. However, Jarrett found that affection for one's elder may actually decrease under the strain of caregiving. Investigations by Adams (1968) and Walker and Thompson (1983) support the finding that an inverse association between caregiving and emotional closeness can often occur. Jarrett comments that what is needed for those persons who suffer from stress and deteriorating relations due to problematic caregiving responsibilities is a form of cognitive intervention. Jarrett recommends that a short-term, cognitive approach be utilized with individuals who "may be changing an ordinary difficulty of living into a crisis" (1985, p. 8).

Others have focused more on the topic of filial obligation rather than affection or reciprocity as a way to predict contact with elderly parents and the degree of ensuing burden. Finley, Roberts, and Banahan (1988) discuss those factors which potentially affect filial obligation. "Role conflict" is one such factor which was found to influence levels of filial obligation. For example, the authors cite the work of Brody, Johnsen, and Fulcomer (1984) who found that unemployed women were expected to do more caregiving than employed women. Role conflict of any type may weaken the sense of filial obligation (Finley et al., 1988). The authors conclude:

Ideally, the dynamics of obligation and affection should be examined in longitudinal studies to determine if obligation influences affection or affection is a predictor of obligation. Such examination must be undertaken for each parent type. The results presented [in this study] indicated that assumptions about relationships generalized to all members of the extended family may be misleading (p. 78)
These authors draw attention to the unclear relationship between affection and obligation in the caregiving context. Their research also points to the need to differentiate between caregiver dyads, i.e., daughter/father, mother/son, wife/husband, etc., as a potentially important factor in understanding caregiving burden.

How one views factors such as affection, reciprocity, and obligation, will directly influence treatment issues in the management of caregiver burden. For example, in treating caregivers who are under a substantial strain, researchers such as Jarrett may recommend a "relabelling strategy". This is a cognitive intervention meant to alleviate burden. This strategy helps the caregivers be free from the cultural imperative of affection, allowing them to redefine their role in more obligatory terms. Contrary to the conclusions of Horowitz and Dobroff, Jarrett would suggest to clients that affection is ultimately disabling and hard to manage. Affection puts a higher degree of burden on the caregivers by disallowing them to vent strong feelings of anger, resentment, or even hate. By relabelling their responsibilities in obligatory terms, these caregivers may find their negative emotions easier to manage.

Formal and Informal Supports and the Experience of Burden

Rather than examine factors such as affection, Zarit et al. (1980) explored other possible mediating variables in the experience of caregiver burden. Like similar studies published over the last five to ten years, the authors conclude that the degree of burden is directly related to the degree of utilization of formal and informal external support, family involvement, and the use of institutionalization on the
part of caregiver. By formal support, the authors are referring to self-help groups or structured therapy groups for adult caregivers in which groups of caregivers meet to share and to receive validation from one another of their daily frustrations and stresses in the caregiving experience. Formal supports also include social and institutional sources, such as meal plans and home care workers. Informal supports refer to the daily, unplanned, and largely spontaneous support caregivers receive from friends and relatives.

Zarit et al. found that the extent of burden reported by primary caregivers was not related to the specific behavioral manifestations of the elder's illness (e.g., difficulty toileting self, wandering, memory deficits), but rather was associated with the amount of social support received by the caregiver. Specifically, Zarit et al. noted that the more visitors to the household, the less the degree of burden reported by individual caregivers. This is an important finding, since it shifts the source of caregiver burden away from the elder and toward other factors. This finding has been supported in a similar investigation by Cantor (1983). The degree of social service utilization emerged as a statistically significant variable in this study for attenuating the negative effects of caregiving.

The availability of outside services has also been shown to be a critical mediating variable in caregiver burden research. For example, Caserta, Lund, Wright, and Redburn (1987) found that a significant need exists for respite-oriented services for caregivers. These researchers looked at both caregiver need and elder impairment in relation to whether or not formal sources of support were utilized. They found
that underutilization of outside services occurred when there was a substantial degree of informal support and the degree of impairment in the elder was relatively small. This study concludes by calling for longitudinal projects to determine the extent to which formal sources of support are drawn upon if and when informal sources break down (Caserta et al., 1987).

Winograd, Fisk, Kirsling, and Keyes (1987) conducted a study similar to that of Zarit et al. (1980) and supported the finding that caregiver burden is not directly influenced by the behavior problems and general level of impairment in the elder. Further, these researchers found that cognitive coping strategies among caregivers increased as a function of their participation in a six month support group. They write:

It appears that as the caregivers learned more about the disease process and gained skills in patient management (problem solving coping), and as they shared with others their stress and gained acceptance of their negative feelings (emotion-focused coping), they became better able to separate feelings of burden and low morale from intolerance toward the patient's behaviors (p. 338).

Hudis et al. (1977) anticipated the findings of Zarit et al. (1980) and Winogrond et al. (1987) by setting down a systematic plan for organizing therapy groups for caregivers. Her program explored many diverse sources of potential community- and family-based support and called upon the focus of alleviating caregiver stress to move more to the system that surrounds the caregiver than to the caregiver herself.
The General Context of Caregiving

Recognizing the need to develop a more complex theoretical model which might unite and inform the selection of stress assessment measures, Poulshock and Deimling (1984) conducted an investigation using a multidimensional model which promoted (a) the concept that burden is fundamentally subjective, i.e., certain tasks are very burdensome for some caregivers and not for others; and (b) that caregiver burden be conceptualized as a mediating force between the elder's impairments on the one hand, and the impact on caregivers' lives on the other. Such a model may allow for the appreciation of the complexity of variables involved in the assessment of caregiver burden.

The variability in assessment techniques has most probably directly contributed to the discrepancies in empirical findings among published studies of caregiver burden. The assertion by Poulshock and Deimling that the caregiving context is highly differentiated allows for a broader and more comprehensive analysis of the many factors related to caregiver burden. The authors write:

...the concept of burden has been measured or operationalized in a different manner in virtually every study of caregiving reviewed and, generally, has been treated as a unidimensional concept (p. 238).

By including both quantitative and qualitative measures of burden, indices of the elder's impairments, as well as self-report measures of depression, this experiment moved beyond the simple correlational studies previously done and promoted a multidimensional perspective of caregiving. The actual theoretical model promoted by Poulshock and Deimling is of less interest here than their contribution to viewing the caregiving context as highly differentiated and multifaceted.
Results of their study are important to future investigations of caregiver burden.

Among their findings, Poulshock and Deimling consistently noted a moderate association between elder impairment and the corresponding burden reported by caregivers. This finding contradicts the results cited above by Zarit et al. (1980) and Winogrond et al. (1987) that elder impairment has little, if anything, to do with the subjective experience of burden.

Burden is defined by Poulshock and Deimling as a "subjective filter" uniquely created by the caregiver. This investigation supports the intuitive notion that the subjective appraisal of caregiving will be affected by how ill the elder really is, as well as the degree of outside assistance available to the caregiver (social service utilization). The authors write:

...the degree to which burden, defined here as the subjective perception of the caregiver specific to a particular type of elder impairment, operates independently or as a mediating measure is partly a function of the specific type of impairment and impact under investigation (1984; p. 238).

Like Lezak (1978), Poulshock and Deimling found that the caregivers in their study reported increased levels of depression. The caregivers' depression, it was found, was modestly related to both their perception of burden and their report of how caregiving changed their lives. Poulshock and Deimling conclude:

It is clear from this analysis that caregivers do report feelings of burden and that they are linked both to the impairment that gives rise to them and to changes in objective conditions within the family. The task remains for social scientists who examine
family caregiving to refine explicitly the measurement of burden and impact indicators so that a more complex and reality-oriented perspective on caregiving can inform further research in this important area (1984; p. 238).

As noted throughout this review, psychological variables have not been extensively examined in relevant studies, with the possible exception of the concepts of affection and reciprocity (see above). Studies such as Poulshock and Deimling's investigation stress the complexity and interactive nature of variables within the caregiving context. Their research points to the need for greater consistency and clarity in measuring caregiver burden.

To summarize, the literature relevant to caregiver burden may be described as wide-ranging and exploratory. Psychological variables have begun to be systematically investigated. One can conclude from the literature that certain other variables are significant factors in the explication of caregiver burden. First, the degree of available formal and informal support has been significantly demonstrated to mediate caregiver burden and to have had a positive impact on lessening the burdensome and stressful aspects of the caregiving role (Horowitz and Dobroff, 1982a; Hudis et al., 1977; Zarit et al., 1980). Second, the degree of impairment in the elder has been shown in some studies to be a significant variable with respect to the degree of burden experienced by the caregiver (Poulshock and Deimling, 1984). Both these variables make intuitive as well as empirical sense when one considers the many forces impinging upon a caregiver at any point in time.
Ego Development and Stress

This investigation proposed that caregiver well-being cannot be fully understood without an appreciation of the caregiver's psychological functioning, social resources, and caregiving context (Gwyther & George, 1986). Generally speaking, this investigation was concerned with the influences on a caregiver's perception of his or her own degree of stress. The present study sought to examine the level of ego development of individual caregivers, and to look for a possible relationship between the level of ego development and perceived stress in the caregiving context. In other words, one's level of ego development, broadly defined as a framework of meaning which one subjectively constructs out of his or her own experience (Hauser, 1976; Loevinger & Wessler, 1970), may mediate the stress-inducing responsibilities of the caregiving role and directly influence the burden level of the caregiver.

Along the transactional line of thought of Lazarus and Meichenbaum, it was hypothesized in this investigation that the cognitive appraisal of one's responsibilities as caregiver is informed by his or her own level of ego development. This, in turn, directly affects one's degree of perceived stress. Since caregiver burden reflects perceived stress, and one's level of ego development reflects characteristic ways of perceiving oneself and others (Loevinger, 1976), the focus of this study was to examine how one's level of stress related to one's level of ego development.
The Construct of Ego Development

The construct of ego development was employed because of its unique theoretical definition and the breadth of its empirical study. Ego development, in its broadest definition, connotes the course of character development within individuals (Loevinger, 1976; 1983). It has been defined in a variety of ways by philosophers, psychologists, and psychoanalysts. Jane Loevinger, who has been recognized as the foremost contemporary authority on ego development, has attempted a comprehensive definition of the concept which is steadily making gains in empirical research.

Theoretically, ego development is a coherent synthesis of those aspects of character development and personality which are essential to the individual, such as conscious preoccupation, cognitive style, and interpersonal relations. Like the models of development proposed by Piaget (1948/1965), Freud (1949/1953), Kohlberg (1969), and others, ego development theory posits that individuals move through a series of qualitatively different levels of structural organization or stages. This sequence or progression through stages is thought to be an invariant one (Hauser, 1976; Lorr & Manning, 1978), though there is as yet little evidence to suggest that the sequence is indeed invariant. Ego development is the master trait, the frame of reference by which individuals interpret and respond to their world (Streich & Swenson, 1985). It is around this master trait that the whole of personality is constructed (Noam, Hauser, Santostefano, Garrison, Jacobson, Powers, & Mead, 1984). Along with the invariant stages of physical maturation, psychosexual unfolding, and intellectual progression, it is the fourth
pillar of human development (Hauser, 1976).

As ego development progresses, the person experiences a marked differentiation of himself or herself. The interpersonal context becomes more complex, as do thoughts and feelings in relation to others (Candee, 1974; Hauser, 1976). Although there have been other attempts at describing developmental typologies (cf. Blasi, 1972; Fowler, 1981; Kegan, 1982; Kohlberg, 1969; Perry, 1970), Loevinger's construct remains intuitively plausible, theoretically comprehensive, and empirically robust (Hauser, 1976). In its more than fifteen year history, it has enjoyed a rapid rise in interest and research among social scientists. Since the construct of ego development is best known by its stages, a brief description of each sequential stage will be useful in understanding the developmental nature and individual typologies of the construct.

The earliest stage that is measurable by verbal report is called the Impulsive Stage. This is a quite normative developmental epoch for most children until about the fifth or sixth grade. Characteristic ways of viewing the world involve a high degree of egocentrism, dependency, and cognitive simplicity. At this stage children cannot see beyond themselves or their own needs. They are frequently quite demanding. Simple concepts such as "good" and "bad" are used to view the world, and others are judged to be either good or bad in terms of whether or not others are "good-to-me" or "bad-to-me". Locus of control is external to the individual; thus, the child can run away from problems (Loevinger, 1976; 1979). Work is a chore and,
frequently, a burden.

The next stage is the Self-Protective Stage. This stage normally extends into high school. The person at this stage is less impulsive and is developing more internal regulatory mechanisms for controlling his or her thoughts and feelings. The person moves toward self-control by learning to delay gratification for short-term rewards. Problems continue to be externalized, and others are blamed when difficulties arise. The major preoccupations of this stage are avoiding blame and "not getting caught". The person is not self-critical but engages in more or less opportunistic hedonism (Loevinger & Wessler, 1978).

The stage after the Self-Protective Stage is the Conformist Stage, characterized by a strong identification with group (family) standards and a strict adherence to rules for their own sake. The person is conventional in his or her attitudes and values, and disapproval by the group becomes a potent sanction. Prone to a more stereotypic definition of roles (including sex roles), the Conformist values niceness and getting along with others (group goals over individual goals) as opposed to the more competitive orientation of the Self-Protective person. The inner life of the person at the Conformist stage is banal and conventional. Values reflect appearance, social acceptance and reputation. Belonging makes the Conformist feel secure. Cognitively, the Conformist remains more simplistic and less complex than persons at later stages.

At the next stage, the Conscientious Stage, the person
demonstrates a richly differentiated inner life with greater cognitive and emotional complexity. The person adheres to a self-evaluated set of beliefs, rather than blind adherence to group values, and is not fearful or preoccupied with group disapproval. Achievement is measured by one's own standards, and the individual is characterized by a sense of responsibility for others. Internal needs can be delayed or sacrificed for others, and the quality of empathy emerges as a distinct emotional capacity at this stage. Work is not intrinsically onerous (a characteristic of the earlier stages), but an opportunity for life enhancement. Loevinger (1979) writes:

Rather than assuming, as the Conformist does, that "one size fits all", the person here [at the Conscientious stage] perceives personal problems and alternative possibilities in situations. [The] Self is seen as somewhat apart from and differentiated from the group. Work is an opportunity (p. 282).

Loevinger (1979) suggests that the modal level for high school graduates in our society is probably the transition from the Conformist to the Conscientious stage of development.

Beyond the Conscientious Stage lie the Autonomous and Integrated Stages, analogous to Maslow's (1954) description of the self-actualizing person. The person at these stages is highly differentiated emotionally and cognitively and shows a marked capacity to acknowledge and to cope with inner conflict, e.g., needs versus duties (Loevinger, 1976). More specifically, persons at these stages of development not only tolerate and accept individual differences but cherish them and see them as life-enhancing. These persons are more psychologically-minded and complex in their thoughts. Although there
is not more conflict for the person at this stage, there is more inherent strength to deal with it, rather than denying that conflict exists or projecting it upon someone else. Less primitive defenses are employed at these stages (e.g., humor, sublimation), and one's behavior is rarely maladaptive. Self-fulfillment replaces achievement as the goal for persons at these higher stages. A high tolerance for ambiguity, appreciation of irony and paradox, and a strongly developed capacity for empathy with another's plight are all qualities evoked at these stages. Along with empathy comes the capacity to sacrifice and to care for others out of a more volitional mode (choice v. obligation). It is hypothesized in this investigation that an individual at this level of ego development feels positively about themselves as a caregiver, choosing and molding their role rather than feeling as if they are a helpless pawn who is fulfilling an odious task. This notion is discussed in more detail later in this chapter. The stages of ego development are summarized in Appendix E.

The Sentence Completion Test

Although Loevinger's theory of ego development is similar to other developmental typologies in terms of qualitative stage changes and invariant sequence (cf. Freud 1949/1953), her theory is significantly advantaged in that it provides an empirical avenue to test the theoretical tenets. Through the use of an assessment technique which is operant (McClelland, 1953) and projective (Anastasi, 1976) in
nature, the frame of reference of the individual is projected onto the task and is open to empirical investigation. The method of assessment of an individual's level of ego development is the administration and completion, verbally or in written format, of thirty-six incomplete sentence stems. Some examples of these incomplete sentence stems include the following: "Women are lucky because..."; "If my mother...", and "Education..." (Loevinger & Wessler, 1970). See Appendix C for the individual items.

Scoring the ego development protocol requires a thorough familiarity with ego development theory, i.e., the operational definition of each stage, as well as the technical method of item and protocol scoring. The Training Manual (Loevinger, Wessler, & Redmore, 1970) presents the scoring system universally used in rating a person's level of ego development. This manual is self-teaching and presents a comprehensive training program through which one can become proficient in analyzing and scoring ego development protocols. Through the use of highly structured exercises utilizing practice protocols, the Training Manual is designed to produce interrater reliability values for researchers seeking to master the scoring system. The precise method for scoring ego development will be discussed in the next chapter.

**Empirical Studies Using the Ego Development Measure**

As the literature reflects more and more studies demonstrating the validity and reliability of the sentence completion measure of ego development (cf. Hauser, 1976), and even newer and revised forms of the sentence completion test become available (Loevinger, 1985), the
measure is being applied to numerous problems in various populations.

An investigation by Vincent and Castillo (1984) looked at the relationship between ego development and psychopathology, using the DSM-III Axis II personality disorder diagnoses. Utilizing a private psychiatric clinic population of 400 patients, Vincent and Castillo supported Loewinger's own findings (1968) that ego development below the Conformity level was significantly related to personality disorders in adults.

Vincent and Castillo clustered their sample around three major categories of personality disorders: Eccentric (paranoid, schizoid, and schizotypal), Dramatic (histrionic, narcissistic, antisocial, or borderline), and Anxious (avoidant, dependent, compulsive, and passive aggressive). The mean WAIS Full Scale IQ on this sample was 104. The treating psychiatrist rendered a DSM-III discharge diagnosis on each patient. The results showed that the Eccentric cluster had in its composition 18% below the Conformist stage and 82% at the Conformist stage or above; the Dramatic cluster had in its composition 44% of its subjects classified as below the Conformist stage, with 56% above; and the Anxious cluster showed values of 9% below and 91% above the Conformist stage. Using Loewinger's normative sample as the expected frequency, the Dramatic cluster of personality disorders (histrionic, narcissistic, antisocial, or borderline) contained a significant number of subjects below the Conformist stage of ego development ($p < .001$). This sample was also devoid of individuals of the higher levels of ego functioning. This finding is consistent with previous investigations into the relationship between ego development and psychopathology.
Adolescents hospitalized for psychiatric problems were studied in a related experiment to determine a possible relationship between ego development and psychopathology. Noam et al. (1984) found a significant relationship between the total number of symptoms evidenced in these hospitalized adolescents and ego development. These findings extend to a hospitalized adolescent sample the aforementioned findings of Vincent and Castillo (1984), Hauser (1976), Loevinger (1968), and Vincent and Vincent (1979). Noam et al. go on to make an important theoretical contribution in their paper regarding what they refer to as "age-stage dysynchronies" as a way of understanding psychopathology from a developmental perspective.

In a different yet related vein, ego development has been studied in the context of higher education, addressing the question, 'When do people normally reach their upper limit of character development?' (Loevinger et al., 1985). In a study of college seniors and freshmen, Loevinger and her associates built upon earlier findings (Coor, 1970; Redmore & Loevinger, 1979) indicating that ego development in high school students not bound for college tends to level off at about the tenth year of schooling. For college-bound youngsters, however, their ego development continues throughout their high school tenure. Using a large sample of students from a technical institute and from a predominantly liberal arts university, it was demonstrated that ego development continued to rise throughout the
college years. Contrary to expectation, women gained more in ego
development at the technical school than at the liberal arts
university.

Although there are no studies examining the relationship of ego
development and the perception of stress, the concept of ego
development and its operational definition put forth by Loevinger and
her colleagues has been a robust and powerful construct in studying the
areas of psychopathology and emotional development throughout college.
The measure has become increasingly more respected in the field, an
assertion testified to not only by the number of steadily rising
publications utilizing the measure, but also by the fact that new
measures are using the Loevinger Sentence Completion Test to
demonstrate their own validity (cf. Sutton & Swensen, 1983). The
studies cited in this section demonstrate growing interest in and
applicability of the ego development construct.

The Current Investigation

Statement of Experimental Rationale

This investigation assumed that caregiving for a chronically
ill family member was stressful for all caregivers, regardless of their
particular developmental stage. Moreover, it was believed that all
caregiving responsibilities and behaviors were mediated by cognitions
which, in turn, were informed by one's level of ego development. Thus,
this investigation postulated that the stress of caregiving was
understood or appraised by the caregiver differently, depending on his or
her level of ego development.
Summary of Experimental Assumptions

The hypotheses tested in this experiment were based upon the following five critical assumptions:

(a) Persons at earlier levels of ego functioning are not highly differentiated emotionally or cognitively, but are compelled to respond to external demands and pressures from their environment in an obligatory and rigid manner;

(b) Persons at these earlier levels are more egocentric and self-focused, and are primarily concerned with immediate self-gratification. Impulse control, delay of gratification, and responsibility for others are features which are not inherently represented among the earlier stages of ego development;

(c) As the person moves to later levels of ego functioning, he or she is capable of greater complexity and differentiation among thoughts, feelings, and behaviors. The person's inner feeling world becomes increasingly rich and complex. He or she appreciates others as unique and distinct beings, multifaceted persons who reflect and appreciate the inherent conflicts in being human;

(d) Empathy as a discrete capacity is believed to be virtually impossible at the earlier levels of ego functioning. The experience of being able to approximate the feelings of others, to take their perspective, and to apprehend the meaning of their experience, requires a differentiated and defined self. It is believed that in the context of caregiving, the ability to empathize with the suffering of an elder can increase one's effectiveness and, eventually, mitigate stress; and

(e) The notion of personal choice emerges as a distinct capacity at
the Conscientious stage of development. Prior to this stage, people are compelled, often reluctantly, to follow rules which were laid down for them. With the attainment of this stage, individuals begin to choose their responsibilities and become responsible for their choices. The obligations of people at these later levels of ego development are, more frequently, self-created and ego-syntonic.

This experiment set out to investigate a possible relationship among several variables using a step-wise multiple regression analysis. Caregiver burden served as the criterion variable. Level of ego development, amount of social service utilization, and degree of elder impairment served as the predictor variables. On the basis of this design, the following experimental hypotheses were generated.

**Experimental Hypotheses**

**Experimental Hypothesis I:** Ego development will account for the largest proportion of the variance in the regression equation predicting caregiver burden after the demographic variables have been controlled for. The amount of variance accounted for will be statistically significant.

**Experimental Hypothesis II:** The relative weight of the predictor variable of elder impairment will be less than that of ego development and will account for less variance in the equation. The amount of variance accounted for will be statistically significant.
Experimental Hypothesis III: The predictor variable of social service utilization will be the least weighted variable in this experiment after elder impairment, ego development, and the demographic variables. The variance accounted for by this variable in the regression equation will be less than the previous two variables though still statistically significant.

In summary, this experiment predicted that less burden would be reported by caregivers who are found to be at the later stages of ego development (hypothesis I). This was believed to be due primarily to the emergence of certain distinct cognitive and emotional capacities associated with advanced levels of ego development. These capacities may allow for considerably more tolerance of the emotional strain associated with the difficult tasks of caregiving. The amount of social service utilization and the degree of elder impairment were also hypothesized to be significant predictor variables in the examination of caregiver burden based upon previous studies (hypotheses I and II).
Subjects

The subjects in this experiment were caregivers of the elderly and chronically ill. These subjects were identified as caregivers according to the following commonly-held definition: Caregivers are individuals who are chiefly responsible for the physical and emotional well-being of an elder who is suffering from some chronic, debilitating illness or aging process which renders the elder, to a significant degree, unable to care for himself or herself without any outside help. These persons (caregivers) commit a substantial amount of their time, emotional energy, and often personal finances to the caregiving process.

The subjects in this experiment were all volunteers. These subjects were recruited from regional Aging Centers, located throughout Eastern and Central Massachusetts, and from the Center on Aging, a multidisciplinary division within the University of Massachusetts Medical Center. Although these caregivers were identified for the experimenter with the help of social service administrators, each potential subject was interviewed by the experimenter prior to any testing to determine if he or she met the criteria stated above. This experimenter was solely responsible for determining the appropriateness of a potential subject for this experiment. Subjects were at these
locations only on their elder's behalf, who was either receiving social assistance (Aging Centers) or medical help (Center on Aging). Approximately 7% (5 caregivers) of those candidates who were asked to participate in the study refused to do so.

Seventy-two caregivers completed this study. Table 1 shows that this sample had a mean age of 54.8 years with a standard deviation of 12.0 years. Seventy-nine percent of the subjects were female and seventy-six percent were married. Twice as many subjects had their elder living with them rather than living apart from them. All of the subjects were Caucasian. Of the subjects in this sample, sixty-seven percent were employed and half of the working caregivers were employed fulltime.

The mean number of years of education reported was 14.5 with a standard deviation of 3.4 years. Forty percent of the subjects had obtained a high school diploma. Eighty-three percent have children of their own, and slightly less than half of the sample have grandchildren. The ethnic backgrounds of the subjects show a wide diversity, with the two most frequently self-identified backgrounds being Jewish and Irish. Over half the subjects identified themselves as Roman Catholic. Over half the subjects in this experiment were the daughters of their elders as compared to other familial relationships (e.g., daughter-in-law).
Table 1

Descriptive Characteristics of Caregivers

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>72</td>
</tr>
<tr>
<td>Age (years, sd)</td>
<td>54.8 ± 12.0</td>
</tr>
<tr>
<td>Female (%)</td>
<td>79.2</td>
</tr>
<tr>
<td>Male (%)</td>
<td>20.8</td>
</tr>
<tr>
<td>Marital Status (%)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>76.4</td>
</tr>
<tr>
<td>Single</td>
<td>11.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>6.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>4.2</td>
</tr>
<tr>
<td>Separated</td>
<td>1.4</td>
</tr>
<tr>
<td>Elder resides with Cg (%)</td>
<td>63.9</td>
</tr>
<tr>
<td>Employment (%)</td>
<td>66.7</td>
</tr>
<tr>
<td>Education (years, sd)</td>
<td>14.5 ± 3.4</td>
</tr>
<tr>
<td>Ethnic heritage endorsed (%)</td>
<td></td>
</tr>
<tr>
<td>Jewish</td>
<td>20.8</td>
</tr>
<tr>
<td>Irish</td>
<td>18.1</td>
</tr>
<tr>
<td>French-Canadian</td>
<td>12.5</td>
</tr>
<tr>
<td>English</td>
<td>8.3</td>
</tr>
<tr>
<td>Greek</td>
<td>8.3</td>
</tr>
<tr>
<td>Italian</td>
<td>8.3</td>
</tr>
<tr>
<td>Armenian</td>
<td>1.4</td>
</tr>
<tr>
<td>Other</td>
<td>2.8</td>
</tr>
<tr>
<td>Religious affiliation endorsed (%)</td>
<td></td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>54.9</td>
</tr>
<tr>
<td>Judaism</td>
<td>19.7</td>
</tr>
<tr>
<td>Protestant</td>
<td>14.1</td>
</tr>
<tr>
<td>Other</td>
<td>11.3</td>
</tr>
<tr>
<td>Relationship of Cg to Elder (%)</td>
<td></td>
</tr>
<tr>
<td>Daughter</td>
<td>52.8</td>
</tr>
<tr>
<td>Daughter-in-law</td>
<td>11.1</td>
</tr>
<tr>
<td>Son</td>
<td>11.1</td>
</tr>
<tr>
<td>Sister</td>
<td>8.3</td>
</tr>
<tr>
<td>Wife</td>
<td>8.3</td>
</tr>
<tr>
<td>Son-in-law</td>
<td>4.2</td>
</tr>
<tr>
<td>Husband</td>
<td>2.8</td>
</tr>
</tbody>
</table>

*Note.* sd = standard deviation; Cg = Caregiver.
Experimental Measures

Caregiver Burden. The criterion variable used in this investigation was caregiver burden. Caregiver burden was assessed by the Caregiver Burden Index composed of 19 items, each on a 5-point Likert scale, administered to the subjects. This Index was created by Poulshock and Deimling (1984), who surveyed many of the individual items utilized by other investigators (e.g., Moos and Moos, 1983; Zarit et al., 1980; G. T. Deimling, personal communication, November 14, 1987). These researchers conducted a factor analysis on the 19 item scale which yielded two factors.

Factor I contains 11 items with factor loadings between 0.46 and 0.75 and reflects the changes resulting from the relationship between elders and family members. The changes involve the quality of the interpersonal exchange between elder and caregiver, e.g., "I feel that elder tries to manipulate me". The second factor which emerged contains 8 items loaded from 0.50 to 0.70 and reflects experiences which form the caregiver role, e.g., "I have enough time for myself" (see Appendix A for the individual items). The measure is scored in an additive manner based upon the subject's responses on the Likert scale. Scores range from 19 (low burden) to 95 (high burden) over both factors. Individually, subjects' scores on Factor I range from 11 to 55. On Factor II, subjects' scores range from 8 to 40.

Ego Development. The primary predictor variable measured in this study is the caregiver's level of ego development. The method of assessing ego development involves the administration and scoring of
thirty-six incomplete sentence stems (see Appendix C for individual items). Each sentence item is rated by comparing the content of the response to examples of responses categorized at nine developmental levels. Because it is assumed that each person has one "core" level of ego functioning, an overall rating is then arrived at on the basis of the subject's entire cumulative frequency distribution of ratings. This rating is referred to as the Total Protocol Rating (TPR) and the rules which govern the determination of the TPR are referred to as "ogive rules". Loevinger and Wessler (1970) report an average interrater correlation of items of .76 and a total protocol interrater correlation median of .85.

In addition to attaining proficiency in scoring via Loevinger's Training Manual, this investigator also solicited the private tutelage of a widely known and highly regarded expert in ego development theory. This expert carefully evaluated the investigator's scoring procedure, offering recommendations for improved accuracy. This expert also scored a substantial portion of the protocols herself. Interrater reliability values were then calculated between the expert's scoring and this investigator's scoring on 37 protocols. The interrater reliability value calculated between the experimenter and the scoring expert was .82.

**Elder Impairment.** The second of the three predictor variables examined in this study is the degree of impairment in the elder. A popular means of assessing elder impairment is through the
administration of selected scales from the Older Americans' Resources and Services Multidimensional Functional Assessment Questionnaire (OMFAQ) (Multidimensional Assessment, 1978). This assessment questionnaire has been used in many clinical and research contexts for clinical assessment, survey, program evaluation, and treatment planning (Harel, Noelker, & Blake, 1985). It is a measure which has been widely used in recent studies either completely or in modified form (e.g., Gurland, Kuriansky, Sharpe, Simon, Stiller, & Birkett, 1977; Hooyman, Gonyea, & Montgomery, 1985; Horowitz & Dobroff, 1982a).

The OARS Multidimensional Functional Assessment Questionnaire (OMFAQ) represents the culmination of a multidisciplinary effort to develop a relatively brief, valid, reliable, and easily administered instrument which would yield information germane to the specific and overall functioning of the elder and his or her service needs (Fillenbaum and Smyer, 1981; Harel et al., 1985). Although there have been two other recent attempts at developing functional assessment instruments, namely, CARE (Gurland et al., 1977) and the Multilevel Assessment Instrument, the OMFAQ is the first and most highly regarded attempt to put into a meaningful and predictive format the comprehensive functioning of an elder (Fillenbaum & Smyer, 1981).

To assess the degree of elder impairment in this experiment, the self-care capacity scale of the OMFAQ was selected and administered to the caregiver. In previous studies, elder impairment had been assessed through various factors, such as cognitive functioning, mobility, and
mental status. However, the variable of self-care skills, or ADL skills (Activities of Daily Living), remains the most consistent indicator of general human functioning. There has not been a published study within the last 10 years which has not included ADL skills in its elder assessment (Horowitz & Dobroff, 1982a). Moreover, it has been widely reported that caregiver burden results largely from the daily, moment to moment, emotional and physical demands the elder places on his or her caregiver (Ames, 1982; Rabins et al, 1982; Simos, 1975).

Reliability, as well as content, consensual, and criterion validity, have been assessed for the OMFAQ in general, and the self-care capacity scale in particular. The self-care capacity scale is comprised of 17 items (see Appendix B). Interrater reliability values were calculated to be 0.87. Intrarater reliability has not yet been determined, though the current value of interrater reliability is also indicative of the OMFAQ's intrarater reliability (Fillenbaum & Smyer, 1981). Although the OMFAQ was derived from a well-validated questionnaire, independent validity investigations were also collected. To obtain criterion validity for the self-care capacity scale, the OMFAQ ratings were compared with ratings done by physical therapists on a therapist-developed 12 point scale. The therapists' ratings were done after an extensive home visit. The level of agreement between the OMFAQ/self-care capacity ratings and criterion ratings using Kendall's tau and Spearman's rank order correlations are .83 and .89, respectively, (p<.001). These values, along with the earlier
description regarding this scale's popularity among researchers, provides substantial evidence of its criterion validity.

This scale is scored on a scale of 0 to 2, where 2 represents minimal impairment. The range of scores is from 0 (severe impairment) to 31 (no impairment).

Social Service Utilization. The third predictor variable in this study is amount of social service utilization. Social service utilization was assessed via a slight modification of the 15 item scale used by Horowitz and Dobroff (1982a). The items require a forced choice response by the caregiver. The scale is scored in a cumulative fashion, and a sum is recorded for each subject depending on the number of forced-choice items positively endorsed. The range of scores is from 0 to 14, and higher scores reflect an elder who receives a significant amount of services provided by professionals in the community. In an effort to be most comprehensive, these 15 items reflect in-home service utilization (e.g., "Does your elder have a visiting nurse come to the home?") as well as community-based service utilization (e.g., "Does your elder see a physical therapist?").

For both the in-home and community-based service items, Horowitz and Dobroff (1982b) do not report alpha or reliability coefficients. The modification of these questions was simply that the responses were not pursued to any extent beyond the subject's basic endorsement. For example, no further inquiries beyond the necessary were made of the
subject after he or she answers the question, "Does your (father, mother, etc.) have a home health aid come to the home to help with personal care (bathing, feeding) and health care tasks?" (See Appendix D for individual items).

Procedure

The experimenter personally contacted each subject and scheduled him or her for an interview. Subjects were told that the study for which they had volunteered was designed "...to examine ways to best offer support to individuals who are caregivers of chronically ill relatives and friends...".

It was solely the choice of the subject whether he or she wanted to complete the measures at home or at another location. The measures are self-administered, however, the experimenter was always available if the subject had any questions. All testing was conducted individually.

The subject was given the option of terminating the testing session at any time if any one of the questions proved upsetting or uncomfortable. Termination of a testing session never occurred. Confidentiality of the subjects' identification was assured through the immediate assignment of a number to all individual protocols and the simultaneous removal of all identifying information. The corresponding name/number list was held by the experimenter alone. The subjects were informed that once the study had been completed and the data analyzed, they would be contacted to discuss the results at a convenient time.
After having introduced himself and establishing rapport, the experimenter administered the battery which was composed of the following measures: (a) demographic information section; (b) caregiver burden index; (c) elder impairment index; (d) social service utilization index; and (e) ego development scale. The measures were counterbalanced to control for order effects. All administration and scoring was accomplished by the experimenter.
CHAPTER IV

RESULTS

This section reports the results regarding the effect of the predictor variables on the degree of burden experienced by the caregivers.

Table 2 summarizes the means and standard deviations of the variables used in the statistical analysis of the data. Of particular importance to the aim of this study are the parameters of the subjects' level of ego development. The mean level of ego development in this study was 5, which corresponds to the Self-Aware Level (I-3/4). Most subjects can be located between the levels of Transition from Self-Protective to Conformist (Delta/3) and Individualistic (I-4/5). The frequency distribution of subjects according to level of ego development is presented in Table 3.

The statistical analysis of the data utilized a step-wise multiple regression procedure. This statistical procedure determines a formula (the regression equation) which describes a line. This formula determines that the sum of squared deviations about the line which predicts the relationship between the independent and dependent variables is minimized. The advantage of the step-wise procedure is
Table 2
Means and Standard Deviations of Experimental Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\bar{x}$</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burden [Factor I]</td>
<td>45.56</td>
<td>50.03</td>
</tr>
<tr>
<td>Burden [Factor II]</td>
<td>30.71</td>
<td>29.96</td>
</tr>
<tr>
<td>Ego Dev</td>
<td>5.03</td>
<td>1.80</td>
</tr>
<tr>
<td>Eld Imp</td>
<td>16.61</td>
<td>6.76</td>
</tr>
<tr>
<td>SSU</td>
<td>2.79</td>
<td>3.07</td>
</tr>
</tbody>
</table>

Note. The variables are: Ego Development (Ego Dev), Elder Impairment (Eld Imp), and Social Service Utilization (SSU).
Table 3

Frequency Distribution of Caregivers According to Level of Ego Development

<table>
<thead>
<tr>
<th>Designation</th>
<th>Stage</th>
<th>Code</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Transition from</td>
<td>Delta-3</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Self-Protective to Conformist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Conformist</td>
<td>I-3</td>
<td>22.1</td>
</tr>
<tr>
<td>5</td>
<td>Self-Aware</td>
<td>I-3/4</td>
<td>36.8</td>
</tr>
<tr>
<td>6</td>
<td>Conscientious</td>
<td>I-4</td>
<td>23.5</td>
</tr>
<tr>
<td>7</td>
<td>Individualistic</td>
<td>I-4/5</td>
<td>2.9</td>
</tr>
<tr>
<td>8</td>
<td>Autonomous</td>
<td>I-5</td>
<td>7.4</td>
</tr>
<tr>
<td>9</td>
<td>Integrated</td>
<td>I-6</td>
<td>2.9</td>
</tr>
</tbody>
</table>
Step-wise Multiple Regression Analysis Predicting Burden
(Factor I) from Independent Variables

<table>
<thead>
<tr>
<th>Step</th>
<th>Multiple R</th>
<th>R Square</th>
<th>Simple R</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.107</td>
<td>.011</td>
<td>.107</td>
<td>.532</td>
<td>.894</td>
</tr>
<tr>
<td>Sex</td>
<td>.134</td>
<td>.018</td>
<td>-.082</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr1</td>
<td>.194</td>
<td>.038</td>
<td>.136</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsml</td>
<td>.253</td>
<td>.064</td>
<td>-.158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed</td>
<td>.267</td>
<td>.071</td>
<td>.068</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm5</td>
<td>.275</td>
<td>.076</td>
<td>.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr3</td>
<td>.281</td>
<td>.079</td>
<td>-.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm4</td>
<td>.285</td>
<td>.081</td>
<td>.012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.285</td>
<td>.081</td>
<td>.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm3</td>
<td>.292</td>
<td>.085</td>
<td>-.165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Res</td>
<td>.293</td>
<td>.086</td>
<td>.067</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr4</td>
<td>.340</td>
<td>.116</td>
<td>.156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>.343</td>
<td>.117</td>
<td>.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr2</td>
<td>.347</td>
<td>.120</td>
<td>-.157</td>
<td>.499</td>
<td>.923</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Dev</td>
<td>.353</td>
<td>.125</td>
<td>-.126</td>
<td>.476</td>
<td>.942</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eld Imp</td>
<td>.371</td>
<td>.138</td>
<td>.141</td>
<td>.489</td>
<td>.941</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. The variables referred to above are: Religion/Protestant (Dr1), Marital Status/Single (Dsml), Education (Ed), Marital Status/Divorced (Dsm5), Religion/Jewish (Dr3), Marital Status/Separated (Dsm4), Marital Status/Widowed (Dsm3), Residence (Res), Religion/Other (Dr4), Caregiver's Children (Child), Religion/Roman Catholic (Dr2), Elder Impairment (Eld Imp), Social Service Utilization (SSU), and Ego Development (Ego Dev).
Table 5
Step-wise Multiple Regression Analysis Predicting Burden (Factor II) from Independent Variables

<table>
<thead>
<tr>
<th>Step</th>
<th>Multiple R</th>
<th>R Square</th>
<th>Simple R</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.095</td>
<td>.009</td>
<td>.095</td>
<td>1.095</td>
<td>.384</td>
</tr>
<tr>
<td>Sex</td>
<td>.107</td>
<td>.012</td>
<td>-.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr1</td>
<td>.111</td>
<td>.012</td>
<td>-.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsml</td>
<td>.352</td>
<td>.124</td>
<td>-.341</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed</td>
<td>.357</td>
<td>.127</td>
<td>.064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm5</td>
<td>.357</td>
<td>.127</td>
<td>-.022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr3</td>
<td>.367</td>
<td>.135</td>
<td>-.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm4</td>
<td>.367</td>
<td>.135</td>
<td>.136</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.401</td>
<td>.161</td>
<td>-.061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dsm3</td>
<td>.452</td>
<td>.204</td>
<td>-.247</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Res</td>
<td>.453</td>
<td>.205</td>
<td>-.041</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr4</td>
<td>.457</td>
<td>.209</td>
<td>-.067</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child</td>
<td>.464</td>
<td>.215</td>
<td>.088</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr2</td>
<td>.471</td>
<td>.222</td>
<td>-.241</td>
<td>1.039</td>
<td>.432</td>
</tr>
<tr>
<td>2 Ego Dev</td>
<td>.471</td>
<td>.222</td>
<td>-.241</td>
<td>1.039</td>
<td>.432</td>
</tr>
<tr>
<td>3 Eld Imp</td>
<td>.471</td>
<td>.222</td>
<td>-.165</td>
<td>.952</td>
<td>.517</td>
</tr>
<tr>
<td>4 SSU</td>
<td>.490</td>
<td>.240</td>
<td>.137</td>
<td>.970</td>
<td>.502</td>
</tr>
</tbody>
</table>

Note. The variables referred to above are: Religion/Protestant (Dr1), Marital Status/Single (Dsml), Education (Ed), Marital Status/Divorced (Dsm5), Religion/Jewish (Dr3), Marital Status/Separated (Dsm4), Marital Status/Widowed (Dsm3), Residence (Res), Religion/Other (Dr4), Caregiver's Children (Child), Religion/Roman Catholic (Dr2), Elder Impairment (Eld Imp), Social Service Utilization (SSU), and Ego Development (Ego Dev).
that it allows previous predictor variables to be held constant as each new predictor variable is added. Owing to the fact that the criterion measure is composed of two factors, the statistical analysis of the data was completed separately for each of these two factors.

The variables of ego development, elder impairment, and social service utilization, along with selected demographic factors, were used as predictor variables. These demographic variables were included due to the frequent though inconsistent effect they have had in previous studies. The variable of caregiver burden was used as the criterion variable.

The variables were ordered and entered in predetermined steps. The first step included seven demographic variables: gender, marital status (entered according the categories of single, married, widowed, and divorced), age, residence with elder, religious affiliation (entered according to the categories of Protestant, Roman Catholic, Jewish, or Other), educational level, and whether or not the caregiver had children of his or her own. Steps two, three, and four consisted of entering the following three predictor variables, respectively: level of ego development, degree of elder impairment, and amount of social service utilization. Tables 4 and 5 summarize the results of the step-wise multiple regression procedure conducted on each factor.

For Factor I, the seven demographic variables entered in Step 1 accounted for 11.7% of the variance in the regression equation. Of these seven demographic variables, it is notable that one variable
(Children) accounted for 3.0% of this variance. The relationship between these variables and burden is not significant. Steps 2, 3, and 4 did not account for a significant portion of the variance in the regression equation. Overall, the statistical analysis of the data proved to be nonsignificant.

For Factor II, the seven demographic variables entered in Step 1 accounted for 21.4% of the variance in the regression equation. Of these seven demographic variables, it is notable that one variable (Education) accounted for 11.2% of this variance. The relationship between these variables and burden is not significant. Steps 2, 3, and 4 did not account for a significant portion of the variance in the regression equation. Overall, the statistical analysis of the data proved to be nonsignificant.

The three experimental hypotheses asserted at the outset of this experiment were unsupported by the statistical analysis of the data. The variables which correspond to these three hypotheses, namely, level of ego development, degree of elder impairment, and amount of social service utilization, were shown to be nonsignificant predictors of caregiver burden.
The primary focus of this investigation involved the impact of a caregiver's level of ego development upon his or her experience of burden. This question of a possible relationship between ego development and stress was expressed in the primary experimental hypothesis which posited that ego development would be the strongest predictor variable when compared with the variables of elder impairment and social service utilization in the statistical analysis of the data. As reported in Chapter IV, the variable of ego development was not shown to be statistically significant as a predictor variable with respect to caregiver burden.

At the outset of this experiment it was assumed that caregivers would not widely differ from each other in terms of their considerable responsibilities and environmental strains. However, this experiment further assumed that whereas there would be little variability in objective strain, there would be much wider variability in the caregiver's internal cognitive and emotional resources available to cope with that strain. In this sense, it was thought that higher
levels of ego development might mitigate stress due to an increase in capacities and resources such as empathy, self-evaluated standards, free will, etc.

The chief finding of this experiment leads one to conclude that a person's level of ego development does not substantially mediate his or her level of stress. However, it is important to consider possible alternative explanations for the absence of any statistically significant relationship between ego development and caregiver burden. In considering alternative explanations, the possible limitations of the present experiment will be discussed.

Ego development theory does not assume that persons at higher levels are necessarily better adjusted individuals. To borrow Rogers' (1961) terminology, later levels of ego development do not imply more "fully functioning" human beings than those at earlier levels of development. In fact, Loevinger cautions against making the assumption that persons at higher levels of ego development are always better adjusted and more fully functioning (Loevinger & Wessler, 1970; McCrae & Costa, 1980).

It has been Loevinger's assertion that individuals at higher levels of ego development are coping with increasingly deeper and more complex problems. To assume that they are doing so in a consistently less stressful and efficient manner can be inferred from the theoretical and empirical literature, though this assumption has not
been adequately tested. Loevinger and Wessler (1970) caution: "Probably...one should see the sequence as one of coping with increasingly deeper problems rather than to see it as one of the successful negotiation of solutions" (p. 7).

Thus, greater adaptational effectiveness and attenuating stress cannot automatically be assumed with increased ego level. Individuals at later levels may not be inherently more "successful" in negotiating life's problems than those at earlier levels. Moreover, it may be true to say that those individuals at higher levels of development do not have fewer problems than their peers at earlier levels. A quantitative index of difficulties has not been found in the ego development literature. Although abilities and capacities such as cognitive complexity and a tolerance for ambiguity increase with ego level, so do the problems of meaning. Reading the protocols of persons at higher levels of ego development does not necessarily lead one to assume that they find themselves with less conflict.

In this context, then, future research could look to the selection of a criterion measure for caregiver burden which is more reflective of the qualitative changes one experiences at each successive level of ego development. In other words, since successive levels of ego development imply greater internal capacities and resources and not necessarily fewer or less pressing problems, a criterion measure of burden may be designed to assess the caregiver's specific problems in meaning. Thus, there may be several different
kinds of caregiver burden depending on where the individual is located in his or her development. For example, a person at the Conformist stage may suffer burden solely due to the limitations of his or her personal freedom. At higher levels, however, caregiver burden may result from the caregiver's strong identification and empathic connection with the elder, fears about his or her own aging, as well as an awareness of social concerns such as funding (e.g., social security) which may motivate the caregiver to be concerned for other elders in society. Thus, the very nature of the ego development construct may beg for collateral measures which are by their nature similar.

Another alternative interpretation related to the lack of statistically significant findings involves a possible unanticipated confounding of the burden measure by the ego development construct. Because the dependent measure used in this study was a self-report instrument which relies on the subjective reporting of information, it may be possible that the psychological pervasiveness of one's ego level may have informed or colored his or her response on the dependent measure.

To illustrate this phenomenon by use of an example which may be more familiar though stereotypic, one might imagine two people of different ethnic backgrounds. For the sake of illustration, one can imagine that a caregiver comes from a highly ethnic setting where the very definition of her role as a woman is to take care of others.
Compare her then to another woman, who is also an American citizen, yet whose ethnic background exerts significantly less psychological and familial pressure. This second woman has less to lose (and perhaps more to gain) by resisting or renouncing her socially dictated role as caregiver.

If both women were asked a question like, "Has caregiving affected your social life?", their answers would probably differ not only due to their individual responsibilities, but also due to their perceptions and expectations regarding what is connoted by the term "social life". The expectation for an uninterrupted and full social life may be very different for the first woman. For her, the family may be her social life. Caregiving, then, does not compromise her social life, and her response to the question would reflect this. The second woman, someone without this particular definition of a woman's role, may respond very differently to the question. Her response to the question posed above might be more in the direction of feelings of constraint and regret.

Another way of illustrating this phenomenon is to use the example of a psychiatric diagnosis. Speaking stereotypically, one might predict that a person who manifests a consistent and distinct personality disorder will view the world in a characteristic way. This viewpoint will color all of his or her responses, even the most factual ones.

These examples illustrate analogously the way in which a person's level of ego development may affect his or her response on
the burden measure used in this investigation. For example, one's level of ego development may influence the response to a question such as, "Do you feel that you have enough free time for yourself?" Free time, as a concept, might have a different meaning and hold a different kind of relevance for a person at the Conformist level of development as compared to a person at the Integrated level. The Conformist's behavior is heavily influenced by external standards, and one's views reflect a strict adherence to these standards and rules. Free time may not be an important or legitimate desire at this level. To the person at the Integrated level of development, however, the concept of free time may be especially relevant and essential, and would produce a different interpretation and response.

Possible confounding effects are not limited to ego development and burden. It may be possible, for example, that individuals who help their elders avail themselves of social services are located more at one end of the ego development sequence than another. One possible direction future studies might take to counter this effect is to collect large numbers of subjects who can be grouped and studied according to their level of ego development. In other words, the design of this experiment could be carried out on a large group of subjects who were all at the Conformist stage, or the Autonomous stage. In this way, we can come to better understand the qualitative distinctiveness of each level of development.

Selecting and studying particular stages first on conceptual grounds might also yield greater insight into the aforementioned
notion of "types" of caregiver burden. In-depth study of even two stages of ego development, with tailored criterion measures, might reveal distinctly different sources and kinds of stress. Since Loevinger's model promotes a "milestone sequence" (Hauser, 1976) of ego development, considering the specific cognitive as well as behavioral characteristics of each stage is logical and appropriate in the study of caregiver burden.

Another point which needs to be mentioned in light of the experimental results is that of the statistical method used in the analysis of the data. As the experiment was being designed, certain assumptions had to be made and limitations imposed simply due to the reality that one investigation, particularly an exploratory one such as this, could not be comprehensive. The step-wise multiple regression technique was selected as the statistical method of analysis. The step-wise multiple regression analysis assumes that there is a linear relationship between the predictor and criterion variables. This is an acknowledged assumption, and it may be that future investigations consider the possibility that there may be a nonlinear relationship between the variables in this experiment.

In conclusion, the primary experimental hypothesis was unsupported by the results. This finding may be a potentially important one for future investigations. The attainment of higher levels of ego functioning may not imply less stress or better life
adjustment in human beings. It does, however, propose a need to cope with increasingly deeper problems.

The dependent measure used to assess burden may have needed to be more specific to the concerns of individual stages. One solution offered was to study individual stages in-depth to better understand the potentially different characteristic stresses at each stage.

The notion that ego development is a pervasive construct which stands with intellectual, physical, and psychosexual development (Hauser, 1976) needs to be soberly considered. Accepting this premise requires one to realize that measures meant to assess other variables, e.g., burden, need to be designed to control for the effects of different levels of ego development.

The second experimental hypothesis predicted a significant relationship between the degree of elder impairment and level of burden. Intuitive as well as empirical criteria lead to the selection of this factor as an important predictor variable. The belief that greater impairment would be related to an increase in caregiver burden was given empirical support in investigations such as the one by Poulshock and Deimling (1984). However, the variable of elder impairment has been shown to be inconsistently supported in other caregiver research.

Zarit et al. (1980) may have been the first to publish research indicating the counterintuitive notion that elder impairment is essentially unrelated to the severity of caregiver burden. They
The surprising aspect of this study is that extent of burden reported by primary caregivers of persons with senile dementia was not related to the behavior problems caused by the illness, but was associated with the social supports available, specifically the number of visitors to the household (1980; p. 653).

The finding in the present investigation that degree of elder impairment is statistically nonsignificant in predicting caregiver burden may be due to several factors. For example, there may be a difference between types of assessment measures which may be relevant to this finding. For a caregiver with numerous responsibilities, his or her self-report on a quantitative assessment measure of the elder's impairment may not be sensitive to the flavor of his or her individual burden. Since it is known that meeting the elderly's affective and emotional needs may be more demanding than meeting their physical needs, the affective ministration of a caregiver may be missed by an assessment measure which asks solely for physical capabilities such as mobility, grooming, orientation, etc.

An alternative explanation concerning the statistically nonsignificant results of the present study involves the caregiving context as a distinct entity; one which is separate from the degree of impairment in the elder. In their investigation, George and Gwyther (1986) discovered that there was a minimal relationship between caregiver well-being and degree of elder impairment. Instead of using impairment as the operative variable, they found that the caregiving context (i.e., caregiver supports and resources) is a much better predictor of burden. They write:
In contrast to measures of the caregiving context, patient illness characteristics were minimally related to caregiver well-being. In spite of the common assumption that prolonged caregiving exerts a pattern of "wear and tear" on the caregiver that results in accelerating deterioration, illness duration was unrelated to the well-being indicators. Although these findings were unexpected, they parallel those reported by Zarit et al. (1980). Our findings thus suggest that it is the characteristics of the caregiving situation and the resources available to the caregiver, rather than the condition of the patient, that most directly affect caregiver well-being (p. 259).

It would appear that the results of this investigation do not support these previously mentioned studies by George and Gwyther (1976) and Zarit et al. (1980). These investigations do acknowledge, however, the finding that a minimal relationship (if any) may exist between the degree of impairment in the elder and the level of caregiver burden.

The last experimental hypothesis of this study predicted a significant relationship between amount of social service use and reported stress in the caregiver. Social services were defined as formal services provided by a professional designed to relieve and/or to assist the caregiver for a specified amount of time in his or her responsibilities to the elder. The finding that there is not a statistically significant relationship between social service utilization and perceived stress contradicts an intuitive as well as empirically-supported view that social services can be helpful in alleviating caregiver burden.

It needs to be noted, however, that there is some discrepancy in the literature with respect to the usefulness of social services. As
discussed in Chapter II, researchers are far from settled on the issue of whether social support mediates the amount of stress a caregiver experiences. Social scientists such as Zarit et al. (1980) report that formal supports (e.g., visiting nurses, home health aides, etc.) can reduce overall feelings of burden in caregivers to chronically ill adults. Caserta et al. (1987) and George and Gwyther (1986) have provided similar results utilizing respite-care services. It has also been demonstrated (Horowitz & Dobroff, 1982a; Schmidt & Keyes, 1985; Zarit et al., 1980) that support groups in which the caregivers participate can also lessen the degree of burden experienced as a result of the oftentimes overwhelming array of responsibilities.

Alternatively, there have been studies, albeit fewer in number, which report little difference in level of caregiver burden when related to outside service utilization. An example of this is a study by Hooyman et al. (1985). These authors studied 2,000 caregivers receiving chore services in Washington state. Chore services refer to in-home assistance such as meal preparation, laundry, house cleaning, and transportation. The purpose of these services are to relieve caregiver burden, minimize the elderly's daily needs for care, and, in the long run, prevent institutionalization (Hooyman et al., 1985, p. 141). These caregivers were selected for study because they were abruptly cut off from receiving chore services as a result of legislative action.

These caregivers were asked to report the extent to which their caregiving behaviors had changed in fourteen areas of their lives, such as privacy, personal freedom, and relationships with family and friends.
The major finding of the study was that the presence or absence of chore services did not significantly influence the extent of family caregiving involvement (p. 144).

One way of understanding this discrepancy in the research literature is to look again at the specific measures used in this investigation. For example, Horowitz and Dobroff (1982a) use both quantitative as well as qualitative measures to assess the consequences to the caregiver of receiving social support. By quantitative, the authors refer to measures which assess the presence or absence of services such as Home Health Aides, Meals-On-Wheels, Visiting Nurses, etc. By qualitative measures, the authors refer to open-ended questions which are analyzed thematically, e.g., "How have things been different for you and your elder since you have been receiving services?" (1982a; p. 331).

The data suggests that when caregivers receive formal support in the caring for an elder, they most often shift the nature of their activities towards meeting the emotional needs of the elder, as contrasted with caring for the physical needs of the elder. This crucial shift to the more affective and emotional domain of caregiving has also been documented in research done by Lewis, Bienstock, Cantor, and Schneewind (1980) and Frankfather, Smith, and Caro (1981). This is an important observation and one which contradicts what might be referred to as the "substitution" view in the area of caregiving research. In the case of the substitution view, it is believed that when social supports to caregivers are made available, caregivers, in
turn, would devote less time to elder-oriented tasks. In fact, this view is unsupported, and it now understood that caregivers shift to the emotional needs of their elders when they are released from the responsibility of meeting their elders' physical needs (Horowitz & Dobroff, 1982a).

This shift from meeting the physical needs to meeting the emotional needs of the elder as external supports become available is a very important finding. It is known that the hardest and most demanding aspects of caregiving involve attending to the emotional and affective needs of the elder, rather than to their physical needs (Cantor 1983; Jarrett 1985; Stone et al. 1987). Many caregivers realize that their elders are depressed, anxious, or lonely yet they are unable to fulfill both the roles of counselor and responsible family member (Horowitz & Dobroff 1982a). The importance of this finding, then, is relevant to how one assesses caregiver burden, since increased social service utilization does not imply that the caregiver is suddenly free from responsibilities and, hence, free from burden. The burden level may remain substantial, though the actual responsibilities of the caregiver may shift.

This observation is demonstrated by Horowitz and Dobroff (1982a), who found that quantitative measures did not support the hypothesis that social service utilization positively affected caregiver well-being. The qualitative measures, on the other hand, strongly supported the hypothesis that caregiver burden was reduced by the presence of outside services. Spontaneous remarks made by caregivers
during the Horowitz and Dobroff study further indicated the beneficial contributions of formal service supports. Over 80% of respondents reported a substantial positive difference in themselves or in their elder as a result of the outside service. This observation was also made in the present investigation. Throughout the data collection phase of this experiment, informal inquiries by this investigator into the usefulness of services such as the Aging Center programs and Visiting Nurses frequently brought responses from caregivers which indicated the importance of these services to their overall well-being.

If the shift from physical to emotional caregiving is as prevalent as one might assume, then the typical caregiver would be less likely to report a difference in his or her overall level of burden, since he or she is still saddled with responsibilities related to the emotional support and nurturance required by the elder. Many elders require a "confidant" or counselor, along with the heightened needs for affection and love, to offset their feelings of helplessness and despair. The responsibility for providing for these emotional needs frequently falls to the caregiver. It would not be entirely accurate to say that little or no change in stress level has occurred. In fact, it was only in the qualitative measures (open-ended interviews) administered by Horowitz and Dobroff that the caregivers described that the nature of their caregiving had shifted and that they felt very positively about receiving the outside support.

Thus, the lack of statistically significant results with respect to social service use and burden in this investigation may be due to the
limited sensitivity of the quantitative manner in which social service utilization was assessed. If social service use were assessed more qualitatively, i.e., in terms of what it means to the caregiver, perhaps the extent of its importance in mitigating burden would have become more apparent. Based upon the data collected in this study, the question of benefit to the caregiver related to the utilization of outside supports remains unanswered.

Additionally, Pagel, Erdly, and Becker (1987) demonstrated that social support networks contain both helpful as well as upsetting elements. Pagel et al.'s work is useful in demonstrating that social support networks are not always supportive, and may, at times, be seen as responsible for a person's suffering, or even as a vital failing at a critical time of need. For example, the irregular delivery of meals, medicines, or cleaning services can be experienced by the caregiver as "more trouble then they [the services] are worth" (p. 794). These services are rarely provided for without a fee, and their consistency is relied upon by the caregiver (dependence which is not always met).

The measure of social service utilization used in the present study attempted to narrow this notion of social support from the broad term of "network" (used by Pagel et al., and including informal as well as formal supports to the caregiver) to one consisting of only professional or community services. The present investigation assumed that formal supports would almost always be considered beneficial. The research of Pagel et al., however, reminds investigators in this area of the complex network of meanings and variables which make up the caregiving context.
Demographic Variables

Previous research in the area of caregivers to the elderly has demonstrated the critical importance of demographic variables in predicting the experience of burden (e.g., Bengtson & DeTerre, 1980; Brody, 1981; Fitting et al., 1986; Gwyther & George, 1986; Horowitz, 1985; Horowitz & Dobroff, 1982a; Zarit et al., 1980; Stone et al., 1987). Specifically, factors such as age, gender, and marital status have been consistently shown to affect a variety of outcome measures. Individual investigations have been designed solely around these variables (cf. Fitting et al., 1986; Horowitz, 1985; Zarit et al., 1986).

The sampling of caregivers in this study was accomplished by self-referral as well as recruitment through aging centers and home health services. The overwhelming proportion of caregivers were women, a fact that is consistent with the established observation that women are far more likely to fill the caregiver role. This holds true regardless of their other familial obligations (Horowitz, 1985).

This study was distinct from previous ones in that it looked at whether the caregiver and the elder resided in the same or separate dwellings. There have been few studies which have looked at this variable in detail. George and Gwyther (1986) report that although residence had no effect on the dimensions of physical health (a finding that contradicts previous research, cf. Poulshock & Silverstone, 1982), all the indicators to assess mental health functioning were affected by residence. These investigators report that caregivers who live with
their elder (household-sharing) report (a) a significantly higher use of psychotropic medication than non-resident caregivers, (b) more stress symptoms than non-resident caregivers, and (c) the lowest levels of emotional and life satisfaction. Additionally, George and Gwyther determined that living arrangements also affected the level of social activity of the caregiver. Household-sharing caregivers consistently show significantly less overall life and social satisfaction than their non-co-resident counterparts. This finding was not supported by the data in the present experiment.

The lack of significance of demographic factors as predictors of burden may be due to several reasons. For example, previous investigations (cf. George & Gwyther, 1986; Horowitz & Dobroff, 1982a) utilized far more caregivers in their studies than were available for this investigation. Soliciting caregivers has been a frequently-noted problem among researchers. Gwyther and George (1986) remark, "The practical difficulties in identifying large numbers of family caregivers are very real..." (pg. 247).

The present investigation relied heavily on caregivers who were identified by the staffs of aging centers. Consequently, these subjects may have been nonrepresentative of the caregiver population since they are actively seeking assistance for their situation. Help-seeking is not a random behavior and may have affected the composition of the sample.

The sample appeared to the investigator to be more representative of the middle socioeconomic class, as contrasted with a sample which
might provide a range of socioeconomic classes. This might have also affected the lack of significant results.

By and large, the elders which were cared for by this sample of subjects were less severely impaired than what might be encountered in other settings. For the most part, the elders associated with this sample could maintain more or less independently the major aspects of their life, e.g., read, relate with others, care for themselves. There was a lack of representation of elders who were severely impaired and, consequently, of those subjects who were caregivers for them.

Finally, the results indicate that the average level of burden reported by the subjects was moderately high. Moreover, there is a significantly high degree of variance among the scores on the burden measures. Future attempts which would diversify the subjects (in terms of burden level) and increase the sample size, as well as examining alternative burden measures, may provide a greater potential for yielding significant results.

The median age of our population continues to rise, and the importance of caring for aging elders is an issue well-represented in both the scientific and the popular literature (cf., Hertz, 1988). Caring for the "young old" is a significant social issue of considerable, and growing, proportions. It is of interest to social policy makers, psychologists, sociologists, and medical professionals. Moreover, work in this area is also relevant to the women's movement and to the literature regarding women's roles in the work force due to the
fact that the overwhelming majority of caregivers are women.

In conclusion, many compelling and complex demands rest on the caregiver; demands such as the elder's emotional needs, the responsibilities of the caregiver's family, and the caregiver's own professional responsibilities. The quality of life of the elder is inextricably woven with the psychological functioning of the caregiver. Unfortunately, this investigation was not able to contribute directly to a furtherance of knowledge regarding the psychological dimensions of the caregiver's role. Hopefully, conceptual and methodological issues encountered and raised in the present investigation will be of use to those who continue to study the psychological life of the caregiver, as well as to those who seek to better understand ego development and experience of burden.
REFERENCES


Lewis, M., Bienstock, R., Cantor, M., & Schneewind, E. (1980). The extent to which informal and formal supports interact to maintain the older person in the community. Paper presented at the 33rd Annual Scientific Meeting of the Gerontological Society of America, San Diego, CA.


Axis II: Personality disorders. *Journal of Clinical
Psychology, 40*, 400-402.

Vincent, L., & Vincent, K. (1979). Ego development and
psychopathology. *Psychological Reports, 44*, 408-410.

Walker, A., & Thompson, L. (1983). Intimacy and inter-
generational aid and contact among mothers and daughters.

development to type and severity of psychopathology.

The relationship of caregiver burden and morale to
Alzheimer's disease in a therapeutic setting.

Zarit, J. (1982). Predictors of burden and distress for
caregivers of senile dementia patients (Doctoral dissertation,
University of Southern California, 1982). *Dissertation
Abstracts International, 43*, 892B.

Zarit, S., Reever, K., & Bach-Peterson, J. (1980). Relatives
of the impaired elderly: Correlates of feelings of burden.

Zarit, S., Todd, P., & Zarit, J. (1986). Subjective burden of
husbands and wives as caregivers: A longitudinal study.
*The Gerontologist, 26*, 260-266.
APPENDIX A
APPENDIX A

Please indicate with a slash (/) how much taking care of the elder has affected your life. You can put the slash anywhere on each scale. Please answer each question in terms of how your caregiving responsibilities have affected your life.

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel angry toward elder.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>2. My relationship with elder makes me depressed.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>3. My relationship with elder is strained.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>4. I feel resentful toward elder.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>5. Elder has negatively affected relationship among family members.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>6. I feel that elder tries to manipulate me.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>7. I wish elder and myself had a better relationship.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>8. I feel elder makes more requests than necessary.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>9. I feel pressured between giving to elder and others in the family.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>10. I feel that elder can depend on me.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>11. I feel my social life has suffered because of elder.</td>
<td>1.....</td>
<td>2.......</td>
<td>3..........</td>
<td>4.....</td>
<td>5.......</td>
</tr>
<tr>
<td>12. My relationship with elder gives me pleasure.</td>
<td>5.....</td>
<td>4.......</td>
<td>3..........</td>
<td>2.....</td>
<td>1.......</td>
</tr>
<tr>
<td>13. I take part in group or organized activities.</td>
<td>5.....</td>
<td>4.......</td>
<td>3..........</td>
<td>2.....</td>
<td>1.......</td>
</tr>
</tbody>
</table>
15. I visit family/friends.  
16. I take part in volunteer activities.  
17. I have enough time for myself.  
18. I take part in church related activities.  
19. I take part in other social activities.

Note. Factor I items include numbers 1 through 10, and number 12. Factor II items include number 11 and numbers 13 through 19.
APPENDIX B
APPENDIX B
Activities of Daily Living

"I'd like to ask you about some of the activities of daily living of your elder, you know, things that we all need to do as a part of our daily lives. I would like to know if your elder can do these activities without any help at all, or if they need some help to do them, or if they can't do them at all.

1. Can your elder use a telephone...

   2 without help, including looking up numbers and dialing?
   1 with some help (can answer phone or dial operator in an emergency, but needs a special phone or help in getting the number or dialing)?
   0 or are they completely unable to use the telephone?
   -- unanswered.

2. Can your elder get to places out of walking distance...

   2 without help (can travel alone on buses, taxis, or drive own car)?
   1 with some help (need someone to help or go with them when traveling)?
   0 unable to travel unless emergency and specialized vehicle secured?
   -- unanswered

3. Can your elder go shopping for groceries or clothes (assuming elder has transportation)?

   2 without help (assumes all transportation needs)
   1 with some help (someone goes along)
   0 unable to do shopping
   -- unanswered
4. Can your elder prepare his/her own meals...
   2 without help (plan and cook independently)
   1 with some help (can prepare some things but unable to cook full meals by themselves)
   0 unable to prepare any meals
   -- unanswered

5. Can your elder do housework...
   2 without help (scrub floors, etc.)
   1 with some help (needs help with heavy work)
   0 completely unable to do housework
   -- unanswered

6. Can your elder take his/her own medicine...
   2 without help (right doses at the right time)
   1 with some help (prepare, remind)
   0 completely unable
   -- unanswered

7. Can your elder handle his/her own money...
   2 without help (write checks, pay bills)
   1 with some help (day-to-day OK, but needs help managing checkbook)
   0 completely unable to handle money
   -- unanswered
8. Can your elder eat...

2  without help
1  with some help (needs help with cutting)
0  completely unable to feed self
--  unanswered

9. Can your elder dress and undress themselves...

2  without help
1  with some help
0  completely unable to dress and undress self
--  unanswered

10. Can your elder take care of their own appearance, for example, combing their hair, shaving (for a man), etc.?

2  without help
1  with some help
0  completely unable to maintain appearance
--  unanswered

11. Can your elder walk...

2  without help (except for a cane)
1  with some help from a person or with the use of a walker, or crutches, etc.
0  completely unable to walk
--  unanswered

12. Can your elder get in and out of bed...

2  without any help or aids
1. with some help
0. totally dependent on someone else to lift him/her
-- unanswered

13. Can your elder take a bath or shower...
  2. without help
  1. with some help
  0. completely unable
  -- unanswered

14. Does your elder ever have trouble getting to the bathroom on time?
  2. No
  0. Yes
  1. Has a catheter or colostomy
  -- not answered
15. Is your elder healthy enough to walk up and down stairs without help?

1 Yes 0 No

16. Does your elder use a walker some of the time to get around?

0 Yes 1 No

17. Does your elder use a wheelchair at least some of the time to get around?

0 Yes 1 No
APPENDIX C
APPENDIX C
Sentence Completion Items for Women

1. Raising a family

2. Most men think that women

3. When they avoided me

4. If my mother

5. Being with other people

6. The thing I like about myself is

7. My mother and I

8. What gets me into trouble is

9. Education

10. When people are helpless

11. Women are lucky because

12. My father

13. A pregnant woman

14. When my mother spanked me, I
15. A wife should

16. I feel sorry

17. When I am nervous, I

18. A woman's body

19. When a child won't join in group activities

20. Men are lucky because

21. When they talked about sex, I

22. At times she worried about

23. I am

24. A woman feels good when

25. My main problem is

26. Whenever she was with her mother, she

27. The worst thing about being a woman

28. A good mother

29. Sometimes she wished that

30. When I am with a man
31. When she thought of her mother, she

32. If I can't get what I want

33. Usually she felt that sex

34. For a woman a career is

35. My conscience bothers me if

36. A woman should always
APPENDIX D
"Now I'd like to talk about the services that your elder may need or is now receiving from agencies and organizations. In this section, I'm only going to be asking you about services from organizations and professional helpers, not about help from family or friends."

1. Does your elder have a homemaker or housekeeper who helps with shopping, cleaning, laundry, etc? (If co-resident, do either have homemaker?)
   1 Yes 0 No

2. Does your elder have a home health aid come to the home to help with personal care (bathing, feeding) and health care tasks?
   1 Yes 0 No

3. Does your elder have a visiting nurse come to the home?
   1 Yes 0 No

4. Does your elder see a counselor for help with personal or family problems?
   1 Yes 0 No

5. Does your elder see a physical therapist?
   1 Yes 0 No

6. Does your elder see a speech therapist or receive training for the blind, deaf, or disabled?
   1 Yes 0 No

7. Does your elder have someone (other than you) who provides transportation to places outside the home (i.e., to doctors, clinics)?
1. Yes 0 No

8. Does your elder have cooked meals delivered to his/her home?
   1. Yes 0 No

9. Does your elder have a Friendly Visitor, or someone who calls regularly (Telephone Reassurance Service)?
   1. Yes 0 No

10. Does your elder see someone for information about services or who helps him/her get services?
    1. Yes 0 No

11. Does your elder go to an agency or Senior Center for low-cost meals?
    1. Yes 0 No

12. Does your elder attend a Senior Center or Day Center for the Elderly?
    1. Yes 0 No

13. Does your elder receive help with financial management or legal affairs (e.g., handling money, paying bills)?
    1. Yes 0 No

14. Does your elder receive any other service or help from an agency or organization (specify).
    1. Yes 0 No

15. Have you ever participated in a group program for people who are caring for older relatives (that is, a program where people could share their experiences and help each other with common problems or concerns)?
    1. Yes 0 No

   [This score is not included in the calculation of the overall score.]
Loewinger has articulated nine discrete stages of ego development which reflect the phasic or categorical nature of the concept as it has evolved historically. It will be helpful to provide a brief description of the nine stages. (The descriptions which follow are adapted from Loewinger, 1976.)

I-2 [Impulsive]: The person is demanding and dependent. Punishment is perceived as retaliatory or as immanent in things. One's orientation is present- rather than past- or future-focused. Others are judged to be either good or bad, which corresponds to "good-to-me" or "bad-to-me".

Delta [Self-Protective]: The person moves toward self-control by learning to delay gratification for short-term rewards. There are rules which can be manipulated. The person is opportunistic, externalizes blame, and tries "not to get caught". Self-criticism is not a characteristic of this level. Life is more or less 'opportunistic hedonism'.

Delta/3: The person reflects, in addition to the above, a concrete orientation to stereotyped sex roles, as well as a concern with appearance and with cleanliness.

I-3 [Conformist]: The person identifies with group (family) standards and reflects a strict adherence to rules. The person is conventional in their attitudes and values. Disapproval is a potent sanction. Right or wrong has more to do with rules rather than with consequences. Prone to a stereotypic definition of sex roles, the Conformist values niceness, helpfulness, and cooperation with others, as compared to the more competitive orientation of the Self-Protective person. Behavior is seen in terms of externals rather than in terms of feelings. Inner life is banal. Values reflect appearance, social acceptance and reputation. Belonging makes the Conformist feel secure.

I-3/4 [Self-Aware]: The person is characterized by an increase in self-awareness and the appreciation of multiple possibilities in situations. Awareness of oneself as not always living up to the idealized portrait set by social norms. Consciousness of self begins to emerge. There begins a heightened awareness of feelings.
I-4 [Conscientious]: The person reflects the major elements of an adult conscience, including long-term, self-evaluated goals and ideals, differentiated self-criticism, and a sense of responsibility. The person has the capacity to reflect upon his own motivations and can appreciate psychological causation. He is responsible for others. Rules are no longer absolutes; exceptions can and, sometimes, must occur. He aspires to achievement and does not view work as intrinsically onerous (a characteristic of the lower stages). The Conscientious person has, inherently, greater conceptual and cognitive complexity. A rich and differentiated inner life characterizes the Conscientious person. Empathy emerges as a real ability at this stage.

I-4/5 [Individualistic]: The Individualistic person not only tolerates and accepts individual differences (Conscientious stage) but cherishes them. There is a deepening appreciation of irony and paradox, and psychological causation and development are natural modes of thought for the Individualistic person.

I-5 [Autonomous]: The most salient characteristic of the person at the Autonomous stage is a marked capacity to acknowledge and to cope with inner conflict (i.e., needs v. duties). Although there is not more conflict for the person at this stage, there is more inherent strength to acknowledge it and deal with it rather than ignoring it or projecting it onto others. Cognitive and conceptual complexity reach their height at the Autonomous and Integrated stages, and there is a high tolerance for ambiguity. This person cherishes autonomy and respects it in others, but also recognizes that emotional interdependence is a necessity. Self-fulfillment becomes a frequent goal, partly supplanting achievement. The Autonomous person takes a broad view of his life as a whole. He aspires to be realistic and objective about himself and others. He holds to broad, abstract social ideals, such as justice.

I-6 [Integrated]: The incidence of persons at the Integrated stage of ego development is rare in our society. There are several problematic issues related to its description, not least of which is the level of ego development of the investigator. Still, the Integrated stage must subsume the qualities of the Autonomous stage and add to it a consolidated sense of identity and wholeness. The Integrated person transcends conflicts and reconciles polarities. As Loevinger notes, "...there is no highest stage but only an opening to new possibilities (p. 26)."
APPROVAL SHEET

The dissertation submitted by Theodore Constantine Bililies has been read and approved by the following committee:

Dr. Daniel F. Barnes, Director
Professor, Psychology, Loyola

Dr. James Johnson
Professor, Psychology, Loyola

Dr. Joseph Durlak
Professor, Psychology, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

[Signature]

Date

273