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Attributions of Responsibility Among Caregivers of the Frail Elderly: Predicting Formal Service Use

Richard Troyer

Western Kentucky University

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Attributions of Responsibility Among Caregivers of the Frail Elderly: Predicting Formal Service Use.

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Richard A. Troyer
May 1989
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ATTRIBUTIONS OF RESPONSIBILITY AMONG CAREGIVERS OF THE FRAIL ELDERLY: PREDICTING FORMAL SERVICE USE

Recommended April 10, 1989
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This project is dedicated to my brother Jerry. I hope we grow to a ripe old age together, and spend our waning days listening to old scratchy records and laughing about everything.
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ATRIBUTIONS OF RESPONSIBILITY AMONG CAREGIVERS OF THE FRAIL ELDERLY: PREDICTING FORMAL SERVICE USE

Richard A. Troyer       April 1989       60 pages
Directed by: Lois Layne, Karlene Ball, and Sally Kuhlenschmidt
Department of Psychology               Western Kentucky University

A review of the research on family caregivers of the frail elderly indicates that although caregivers often experience high levels of burden, they make only minimal use of available professional, or formal, services. A theoretical model of helping and coping proposed by Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982) suggests that attributions of responsibility for causing and for solving problems define four distinct attributional styles, each determining how people will respond to outside help. The current study of 40 family caregivers attempted to validate an attribution instrument based on the Brickman et al. (1982) model, and to determine whether scores from the instrument were predictive of formal service use. Four models were hypothesized to be identified through factor analysis, each coinciding with one of Brickman's attributional styles. It was also hypothesized that score totals for each of the attributional style models would be predictive of formal service use. Neither hypothesis was supported. However, evidence which did not reach statistical significance suggests the existence of the models in this group. Also, regression analysis found several demographic variables to be
predictive of formal service use. These include; care receiver age, caregiver education level, and whether or not the caregiver lives with the care-receiver. Caution must be taken in generalizing the findings from this study due to the questionable validity of the measurement instruments and to the small sample size. Suggested future research includes further validation work on the assessment instruments, and the recruitment of a larger sample group.
In recent years psychologists have become increasingly interested in the study of how people cope with aversive life events. According to Silver and Wortman (1981), "coping" refers to any and all responses made by an individual who encounters a potentially harmful outcome. Such responses would include overt behaviors, cognitions, emotional reactions, and physiological responses. The term "aversive life event" includes many situations, and reactions to such events have been studied in a variety of contexts, including natural disasters (Lifton and Olson, 1976), rape (Meyer and Taylor, 1986), severe accidents (Bulman and Wortman, 1977), and cancer (Taylor, Lichtman, and Wood, 1984).

One aversive life event that has been relatively ignored in previous coping research is that of caring for an impaired elderly person. Recent studies on the population of family members and friends who provide primary, unpaid assistance to dependent elderly persons have documented the importance of these family members and friends (commonly referred to as "informal caregivers") in providing the majority of the total care which dependent elderly persons receive (Doty, 1986; Shanas, 1979; Soldo, 1983).
However, also documented have been the high levels of stress produced by the task of caregiving.

Caregivers experience stress for many reasons, including family conflicts (Brubaker and Brubaker, 1981), lack of role definition (Getzel, 1981), financial difficulties (Silverstone and Hyman, 1982), and behavioral changes in the elderly care-receiver (Mace and Rabins, 1981). Often caregiver responses to these stressors are detrimental, both to their personal lives and to their ability to be competent caregivers. Caregiver stress can cause significant physical health problems (Crossman, London, and Barry, 1981; Fengler and Goodrich, 1979), result in psychological disorders such as depression (Coppel, Burton, Becker, and Fiore, 1985) and even lead to elder abuse and neglect (Hickey and Douglas, 1981; Steinmetz and Amsden, 1983). Clearly both caregivers and those persons for whom they care would benefit from more constructive coping responses.

Social Support

One positive way of coping with an aversive life event is to enlist the support of others. Most people develop a sense of well-being through supportive relationships with others, and are better able to respond to life stresses because of this support (Caplan, 1974). In one study of caregiver burden (Zarit, Reever and Bach-Peterson, 1980), it was found that caregivers with adequate physical and emotional support felt less burdened than those who received little or no support.
Informal and formal Help

Social support is available to caregivers from both "informal" networks which consist of family members and friends, and from "formal" or professional service networks. Research has documented the importance of both types of support in the caregiving process.

Informal help. According to Tobin and Kulys (1980), informal help is the most natural type of support to seek because it provides the older person and the caregiver with opportunities to continue relating to persons with whom they have related for most of their lives. This type of emotional attachment is not something easily duplicated by formal services. Research has shown that having sibling caregivers can create a sense of emotional security for elderly care-receivers (Cicirelli, 1977), and that friends and neighbors often play important roles as confidants to the elderly (Brown, 1980; Moriwaki, 1973).

Close relatives, such as spouses and adult children often provide more primary tasks, such as transportation, household chores, and assistance in writing and signing legal documents (Robinson and Thurnher, 1979). Also, several studies have noted that having a spousal caregiver can be effective in preventing or deterring nursing home placement (Brody, Poulshock, and Masciocchi, 1978; Palmore, 1976).

Formal help. Formal, or professional services have also been found to be important sources of support for caregivers. Mace and Rabins (1981) point out that sometimes family members are too close to a situation to make clear, objective decisions. In such a case it can be advantageous to rely on an expert third party to help make the right choices. In other cases caregiving involves specialized skills which
family members may not possess (Shanas and Sussman, 1977). For instance, only medical doctors can diagnose illnesses and prescribe medication.

Another important aspect of formal services is that they tend to be designed for specific tasks. For example, homemaker services are set up to assist with routine tasks such as house-cleaning and grocery shopping. This type of service can provide valuable supplemental aid to adult children who are caught between the responsibilities of their jobs, their elderly parents, and their own families (Brody, 1981; Miller, 1981).

The Formal/Informal Mismatch

Although both formal and informal supports have been shown to be important parts of the caregiving process, research suggests that formal services are relatively underutilized by informal caregivers. A study by Shanas (1979) of data from a 1975 national survey of the noninstitutionalized elderly indicated that immediate family members were the major source of support for the elderly in times of illness. A study of elderly persons in Cleveland, Ohio, by the United States General Accounting Office (1977) found that family and friends provided over 90% of personal care assistance, 80% of transportation needs, and 75% of homemaker assistance for older people needing those forms of help. More recently, Stone and Cafferata (1982) examined a nationally representative sample of informal caregivers and have found that less than 10% of those caregivers used formal services to assist in their caregiving task.
The findings from the three studies just mentioned imply that informal caregivers have been relying for some time on their own resources instead of those offered by professional services in caring for their elderly relatives and friends. As a result, formal or professional services have been underutilized by informal caregivers.

Variables affecting service use. Such underutilization of professional services by caregivers has usually been attributed to a perceived lack of availability of or access to services (Ory et al., 1985). However research has more recently indicated that even when services are made available, they are not always used. In a training manual for respite care workers, Middleton (1987) discusses her efforts to establish an Alzheimer's respite care training project. In an evaluation of the experience she states that "a persistent problem was the difficulty in getting families to request services or to actually use the services once they had been requested. It had been anticipated that as many as 100 to 125 families would benefit from the project. In reality, only 36 families utilized the specialized services." In addition, a recent study of community service utilization among caregivers of dementia patients by Caserta, Lund, Wright and Redburn (1987) found that 36% of the caregivers they sampled did not report a need for any community services.

At the present time, little is known about the variables influencing caregiver utilization patterns when services are made available. According to Ory et al. (1985), these variables need to be identified and examined. Several variables which have recently been suggested by researchers include informal information links (Litwak,
1985), caregiver resources such as income and informal support (Harel, 1985), and the inability of caregivers to identify their specific needs (Springer and Brubaker, 1984).

Another variable that may influence service utilization but which has not received much attention by researchers is that of self perceptions. In the community service utilization study by Caserta et al. (1987), a content analysis of open ended responses revealed that the most prevalent reason given by caregivers for not using available services was a perceived lack of immediate need (43%). Other reasons given were that caregivers did not want to leave the patient with a stranger (16%), the patient was thought to present too many behavioral and emotional problems (7%), and that professional services were too expensive (5%). Although caregivers did not acknowledge directing these perceptions toward themselves, it is possible that their self-perceptions related to the problems of caregiving influenced the responses given in this study.

The influence of caregiver self perceptions on professional service use has not been fully examined at the present time. Attribution theory, which has been a major influence in other areas of coping research, may be one way of exploring this influence.

Attribution Theory

Attribution theory postulates that people make a causal search in order to understand the reasons for any change in, or threat to their environment (Heider, 1958; Kelley, 1967). In other words, when things happen to people (for instance receiving a promotion or experiencing the death of a loved one) they make an effort to understand the causes
of those events. In deciding who or what was the cause, they make attributions.

The cognitive process of making a causal search is similar to Lazarus and Folkman's theory of appraisal (1984). According to Lazarus and Folkman (1984), cognitive appraisal refers to "the cognitive processes that intervene between the encounter and the reaction." Through such cognitive appraisal, the person can evaluate, 1) whether or not the encounter was stressful, 2) what can be done to cope with the results of the encounter, and 3) any necessary reappraisal. Both cognitive appraisal and attributing causality work to assess the significance of what is happening in order to insure the person's well being. Attributing causality can take place on several dimensions. Two dimensions important to coping with negative life events will be reviewed next.

**Attributional Dimensions in Coping**

Two attributional dimensions important in the area of coping with negative events are responsibility and control. These dimensions are interrelated in terms of how they affect the attributions people make.

**Responsibility.** Responsibility is related to control and to the attribution process in that the more control we attribute to someone, the more responsible they become in our eyes. Thus, in the wake of a car crash, if the driver could have controlled the car (if the wheel had not locked) then we would be more likely to hold the driver responsible for the crash.

In the area of coping with negative events, past research has documented the importance of assigning responsibility in the form of
blame. In one study of severe accident victims, Bulman and Wortman (1977) found that victims who placed the blame for their accident on themselves (an internal attribution) coped better than those who blamed someone else (an external attribution). In another study, self-blame was found to have different effects on coping depending on whether the self-blame was behavioral (directed at what the person did) or characterological (directed at what the person is perceived to be) in nature (Janoff-Bulman, 1979). An example might be saying "I did a stupid thing", as opposed to "I am a stupid person."

Control. Control is related to the attribution process in that it is a precondition for the attribution being made (Heider, 1958; Kelley, 1967; Jones and Davis, 1965). In other words, we must assume that an individual had the ability to perform (i.e. was able to control) an action before we can attribute causality to that person. In the car crash example then, we would not attribute causality to the driver if we knew that the steering wheel had locked. The driver would no longer have been in control of the car.

Past research on control has shown that individuals who believe they have some control over what happens to them perform and cope with stress better than individuals who do not believe they have such control (Brickman, Linsenmeir and McCareins, 1979). In an applied setting, Rodin and Langer (1976), and Schultz (1976) were able to show that interventions which made nursing home residents feel as though their environments were more controllable and predictable resulted in higher levels of activity and a generally more favorable health status than was found in groups not receiving such interventions.
Distinguishing Between Problems and Solutions

According to Karuza, Zevon, Rabinowitz and Brickman (1982), a problem with much of the recent research on coping is that it has not drawn a distinction between attributions of responsibility for problems, and attributions of responsibility for solutions. In a theoretical analysis of coping, Brickman, Rabinowitz, Karuza, Coates, Cohn and Kidder (1982) have proposed that by distinguishing between attributions of responsibility for a problem (who is to blame for a past event), and attributions of responsibility for a solution (who is to control future events) we can more clearly understand how individuals perceive negative events, and in turn specify what forms their behavior will take as they attempt to cope with those events. In the case of this model, deciding who is to blame or who is to be in control refers to whether the person views him/herself as responsible (an internal attribution), or whether they view someone or something else as responsible (an external attribution).

Models of Coping

Within the theoretical framework of Brickman et al. (1982), whether or not people hold themselves responsible for causing their problems and whether or not they hold themselves responsible for solving those problems, determines four fundamentally different coping styles or models from which people can operate. These include the moral model (taking responsibility for both cause and solution), the medical model (taking responsibility for neither cause nor solution), the compensatory model (taking responsibility for solution but not
cause), and the enlightenment model (taking responsibility for cause but not solution). An illustration of the models appears in Table 1.

Table 1

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<th>Responsibility for the cause</th>
<th>Responsibility for the solution</th>
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<tr>
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<td>no</td>
</tr>
<tr>
<td>Moral</td>
<td>Enlightenment</td>
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Moral Model. Under the moral model, Brickman et al. (1982) suggest that people in need of help see themselves and are seen by others as lazy or as failing to make the effort needed to succeed. Solutions to problems come through hard work on the part of the person in need. In turn, those who provide aid within the moral model attempt to motivate people in need to work harder in order to help them solve their problems. Caregivers operating under the moral model of coping may view their situation as something created through a personal lack of effort. In turn, they may feel obligated to rely only on themselves to remedy their problems.

Medical Model. The medical model gets its name from the practice of modern medicine, the most familiar embodiment of the assumptions that people are not responsible for their problems or solutions. In terms of the Brickman Coping Model however, the medical model refers to
all cases in which people are considered at the mercy of forces beyond their control. Medical model persons see themselves, and are seen by others as ill or incapacitated. Solving problems involves turning to experts or authority figures. A caregiver example of the medical model of coping might be someone who feels they have suddenly been faced with an overwhelming task (i.e. she can't take care of herself and we are her only family), which must be solved by someone else (i.e. we'll have to get a nurse).

**Compensatory Model.** In the compensatory model, people in need of help view themselves as deprived individuals who were not given the opportunity to develop the necessary skills needed to deal with their environment. To solve their problems, they must put forth a special effort. While the cause of the problem is seen as beyond their control, receivers of aid view themselves as ultimately responsible for solving their problems. Examples of the compensatory model in caregiving may be those persons who recognize their limits (e.g. dad is beginning to act in ways I just don't understand), but who compensate by gathering information through books or professional advise.

**Enlightenment Model.** Under the enlightenment model those in need of help tend to see themselves, and are seen by others as responsible, by their past behavior, for a problem they must endure in the present. The enlightenment model is the basis of coping whenever people are unable to control what they experience as undesirable behavior on their part. Solutions to problems however, must be determined by someone else, usually an authority figure whom the victim must turn to. In this coping model, the solution can only be maintained as long as the
relationship with this external authority figure is maintained. A caregiver example of the enlightenment model might be someone who says "I've been so busy I let grandpa's condition deteriorate. Now there is no way for me to care for him adequately and I will have to call a professional service."

The Dilemma of Helping

A general hypothesis of the Brickman Coping Model theory is that each model or set of attributions will affect the competence, status, and well-being of both the persons who are in an aversive situation, and those persons who are attempting to help them. A problem referred to as the "dilemma of helping" occurs when those receiving help differ in their attributional coping models from those people providing help.

Evidence found in several studies of social support indicate that helpers often make support attempts which are judged to be unhelpful by recipients (DiMatteo and Hays, 1981; House, 1981; Wortman, 1984). Such evidence would seem to indicate that a mis-match between receiver and provider models can undermine effective helping and coping. For example, a home health agency worker who assumes a medical model (presuming a recipient needs to be taken care of), may discover feelings of hostility and resentment among caregivers who assume a compensatory model. Those clients may feel as though the agency were trying to help them too much. In contrast, an early understanding of the recipient's model would enable providers to either adapt their own methods, or persuade receivers to adopt new models.
Conclusion

Research on caregivers of dependent elderly persons has shown that even when professional services are made available to them, caregivers don't always use those services. An untested variable which may be affecting this inconsistent use of formal services among caregivers is the way in which caregivers perceive themselves when they face problems. The theory proposed by Brickman et al. (1982) further suggests that caregiver self perceptions can be categorized as four differing attributional styles, each of which play a role in determining how caregivers will react to aid that is offered from professional services. If this suggestion were supported in a study of caregivers, such a finding would be beneficial to professional service providers who work with caregivers, by giving them information on how caregivers will react to aid. These service providers could then design their approach to best fit the attributional styles of each individual caregiver.
Hypotheses

The purpose of this study is to explore the influence of attributional style on the use of formal services among a group of informal caregivers of elderly persons. According to the theoretical framework of Brickman et al. (1982), the type of attribution one makes (either internal or external) on the dimensions of responsibility for a problem and responsibility for a solution results in four general models of coping that specify what form one's behavior will take when soliciting or receiving aid.

For the present study, two findings are hypothesized.

(1) For the attribution instrument it is hypothesized that four factors will emerge from a factor analysis study, each correlated with one of the four attribution models.

(2) For caregivers participating in this study, it is hypothesized that scores on the measure of attributions of responsibility for problems and solutions will be predictive of scores on a measure of formal service use. Specifically, it is hypothesized that high total scores on moral model questions will predict low scores on the formal service use measure and that high total scores on medical model questions will predict high scores on the formal service use measure. High total scores on compensatory and enlightenment model questions are hypothesized to predict medium-range scores on the formal service use measure, since both compensatory and enlightenment models are combinations of moral and medical models.
Method

Participants

Participants in the present study were 40 family caregivers living in the western Kentucky area. Of these participants the majority were white (85%) and female (90%); the group had an average age of 61 years. Slightly over half of the participants (52.5%) were adult children caring for a parent, while spouses (37.5%) and other relatives (10%) accounted for the rest of the group. Seventy-three percent of the participants lived with their care-receivers. The majority of care-receivers were white (95%) males (58%) between the ages of 65 and 80 (55%).

The average length of time devoted to caregiving in the present study was 4.6 years, and 68% of the participants were caring for someone with a physical illness. Both education and income levels were bi-modally distributed for this population. Thirty-three percent of the participants did not graduate from high school, while fifty-three percent had at least some college education. A large percentage reported an annual income of fifteen thousand or less (32.5%), while another thirty percent averaged twenty thousand dollars or more per year. The majority of caregivers in the present study also have health insurance (92.5%). Demographic data is summarized in Table 2.

Participants in the present study were recruited from several "target locations" in the western Kentucky area including; (1) home health agencies, (2) area churches, (3) mental health centers, (4)
hospitals, and (5) personal contacts. An initial attempt to recruit participants by advertising caregiver training sessions failed to attract a sufficient number of people. The author feels that a major reason for this lack of participation may be due to the fact that many caregivers are unable to spend much time away from their care-receiver. Demographic data from Stone et al.'s (1987) national profile of caregivers indicates that 80% of the overall caregiver population provide unpaid assistance seven days a week, and that on an average day caregivers spend approximately four extra hours providing care.

The organizations contacted in the present study to identify caregivers were used because it was felt that these organizations were likely to have contacts with large numbers of active caregivers. For purposes of this study the term "caregiver" referred to any person over the age of 18 who is currently providing unpaid, primary support for an impaired elderly relative or friend.

Only current caregivers were included in the present study in order to increase the accuracy of the responses. "Primary support" in the present study was defined by caregiver self report. Only caregivers who reported being their care-receiver's main source of help were used in the present study. Forty caregivers were recruited for the present study. This number was chosen because multiple regression was used. According to Pedhazur (1985), even numbered sample groups allow for greater accuracy in the interpretation of multiple regression statistics.
Instruments

Three measures were used in the present study.

Demographics. A one page demographic questionnaire was administered first (see Appendix A). This questionnaire was developed from a caregiver needs survey constructed by researchers from Western's Gerontology Program office (Layne et al., 1988). The questionnaire consists of fourteen demographic items, answered by placing a check mark or a written answer in the space provided after each question. Items measure caregiver age, sex, race, annual income, use of health insurance, education level and employment; who the caregiver lives with, their relationship to their care-receiver, care-receiver age, sex and race; type of illness the care-receiver has, and length of time the respondent has been a caregiver.

Attributions. Caregiver attributions of responsibility were measured using a modified version of an instrument developed directly from the theoretical model proposed by Brickman et al. (1982). The instrument consists of 20 statements reflecting five assumptions which underlie each of the four models. In other words, for each model (moral, medical, etc.,) there are five statements which reflect: 1) the respondent's view of what caused the problem, 2) the respondent's implicit view of human nature, 3) what the respondents feel they need to do to solve their problem, 4) what respondents feel others should do to solve the problem, and 5) the basic orientations which respondents adopt toward the help offered by others.

Acceptance of each assumption is measured by a 7-point scale. This Likert-type format allows responses to be summed, and a total
score ranging from 5 to 35 to be generated for each respondent on each of the four models described earlier (i.e. moral, medical, compensatory, and enlightenment). The attribution instrument is found in Appendix B.

At the present time, only one published validity study exists for this instrument. In her dissertation, Rabinowitz (1978) focused on distinct populations in an attempt to demonstrate the existence and consequences of each of the models. Four groups of subjects thought to represent each of the four hypothetical coping models were tested using the present attribution instrument. One-way analyses of variance indicated significant differences across groups in perceived responsibility for problems and solutions. However, no studies have been performed on a single group which has not been predetermined to endorse a particular model. The instrument at this point, is the only one based directly on the theory of responsibility attributions proposed by Brickman et al. (1982).

**Formal service utilization.** Use of formal or professional services was assessed using an instrument designed specifically for this study by the author (see Appendix C). The instrument measures the amount of caregiver service use among 15 common services provided either by hired help or by community agencies. Each service is listed and followed by questions which tap four areas: (1) perceived need of the service (i.e. "do you think you need to use"...), (2) actual use (i.e. "do you use"...), (3) frequency of use (i.e. "if so how often"), and (4) reasons for non-use (i.e. "if not, why").
For each participant, scores on the question of frequency of use for each service were added together, resulting in a total service use score. Frequency was scored with either a one (no use), a two (low use) or a three (high use). Many of the service use questions were left blank, resulting in a large amount of missing data. Because it is unlikely that all participants are using each of the fifteen services, an assumption was made to treat unanswered questions as "no use."

Low and high usage scores were determined by splitting the distributions in half. Scores below the mean for each service were categorized as low use scores, while scores above the mean were categorized as high use scores. The resulting summation gave each service a possible score range of 0-3, and the entire scale a range of 0-45. Scores on the questions of perceived need, actual use, and reasons for non-use were collected as supplementary data, to be used in the interpretation of the results. No psychometric data exists for this instrument at the present time.

Procedure

Participants in the present study were identified by contact persons at each target location. Contact persons were identified through both personal and professional resources. The researcher called each contact to introduce himself, explain his study, and ask for their help.

If the contact was willing to help, he/she was instructed to "identify any person over the age of 18 who is currently caring for an impaired friend or relative over the age of 65." Each contact person then generated a list of caregivers whom they thought might be willing
to take part in the study, and made an initial contact with each person on that list. This initial contact was either in the form of a letter, a phone call, or a home visit. The initial contact served to introduce and endorse the researcher, briefly describe the study, and ask for the caregivers assistance in carrying out the project.

Caregivers who indicated an interest in participating in the project had their names placed on a list which was given to the researcher, and were told that they would be contacted by the researcher. At this point the researcher called each caregiver to introduce himself, explain the project and the caregiver's role in greater detail, and confirm whether or not the caregiver was still willing to participate.

A total of 81 caregivers were initially contacted. Approximately one-half did not participate in the present study, either because they chose not to or because they did not meet the criterion. The return rate for the 40 caregivers who initially agreed to participate was 90%. Four caregivers chose not to take part in the study after they had received their questionnaire packets, and four more caregivers were contacted to replace them.

After confirming a caregiver as a participant in the present study, the researcher arranged a time for a home visit. During these visits the researcher gave each participant a survey packet containing an informed consent form (Appendix D) and the three survey instruments, with written instructions for each. In addition each participant received an envelope which had been stamped and addressed to the researcher. The researcher then read over the instructions with the
participant, answered any questions pertaining to the study and to the survey instruments, and instructed participants on how and when to return the finished questions.

Standardized instructions were used for each of the steps the participant went through in this study (see Appendix E). These steps included reading and signing the informed consent form, completing the three survey instruments, and returning the consent form and survey instruments to the researcher.

In the event that a home visit could not be made, the survey packet was mailed, and a follow-up phone call was placed several days later in order to give instructions and answer questions. The same procedures followed during a home visit were followed over the phone. Of the total group of 40 participants, 29 were visited at home and 11 received their questionnaires in the mail.
Results

Descriptive Data

Results indicate that participants in the present study made only minimal use of formal services as a part of caring for an elderly relative ($\bar{x}=6.3$, $SD=7.21$ from a possible 45). Services which received the most frequent use (both low and high) by the entire group are listed as follows; respite services (43%), medical services (43%), personal care services (30%), household chore services (28%), and day care services (20%).

Low and high service use levels were determined for each participant using a particular service by comparing their individual answer (either in days per month or days per year) to the mean for that service. Service use means and standard deviations are listed in Table 3.

Validity

Evidence for the construct validity of the attribution instrument was investigated using factor analysis. Factor analysis is a statistical technique used for grouping items that are related to each other (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975). This process makes it possible to identify underlying constructs not directly observable among the items themselves.

In the present study it was hypothesized that four factors would emerge from a factor analysis, each one related to one of the four attribution models (moral, medical, compensatory, enlightenment).
Hypothetically, each factor should be made up of a cluster of the five items related to one of the four attribution models. In the present study, this hypothesis was not supported.

Using varimax rotation with a mineigen value of 2, four factors did emerge (see Table 4). However items from the attribution instrument did not cluster according to the proposed models. Only one factor (factor 3) roughly matched a hypothetical model, containing three of the five items in the moral model. Table 5 illustrates the hypothetical and actual item clusters.

Although factor analysis did not support the existence of the four hypothetical models, frequency analysis of the item scores revealed a pattern of scoring among the entire group which was consistent with the attribution models. As shown in Tables 6 and 7, moral and compensatory model items had consistently strong agreement, while medical model items had consistently strong disagreement. Responses to enlightenment model items were mixed.

**Predictors of Formal Service Use**

The first hypothesis failed to support the existence of the four hypothetical models. Consequently the second hypothesis could not be tested. However, factor analysis did produce four common factors. To test these factors as possible predictors of service use, a multiple regression analysis was conducted. Multiple regression explains the variance of a criterion variable by estimating the contributions of several predictor variables (Kerlinger and Pedhazur, 1973).

Because there were a high number of variables used in the analysis of a relatively small sample group, and because there was a fairly
large amount of missing data, commonality analysis was conducted in the present study. Commonality analysis is a method of multiple regression analysis which partitions the variance of the criterion variable (Pedhazur, 1982). Commonality analysis identifies proportions of the variance which may be unique to each predictor variable, and proportions of the variance which are attributable to various combinations of predictor variables.

In the present study, commonality analysis revealed that the combined contribution of the four actual factors to the variance of the criterion variable was small ($C_{1234}^2=.2903$). Multiple regression analysis revealed that none of the attribution model factors, either in hypothetical or actual item clusters, were predictive of formal service use.

Analysis of demographic data identified three demographic variables as significant predictors of formal service use. The combination of care-receiver age, caregiver education level, and whether or not the caregiver lives with the care-receiver accounted for 36% of the total variance in the criterion variable ($F=6.56, p<.001$).

Commonality analysis showed the variable of care-receiver age to be the single best predictor of formal service use ($U[1]=.3305$). Care-receiver age predicted formal service use in a negative direction. Hence, caregivers of younger care-receivers used greater amounts of formal services than those caring for older care-receivers. In contrast, the variables of caregiver education level and whether or not caregivers live with their care-receivers were positively correlated with formal service use. Caregivers with higher education levels and
those living with their care-receivers were more likely to use formal services than those with less education who do not live with their care-receiver.

Further frequency analysis revealed that most caregivers of the young-old in the present study are spouses (64%), and that half of them are caring for a relative with Alzheimer's disease. In contrast, 77% of caregivers of the old-old are adult children but only 6% of them are caring for an Alzheimer's patient.
Table 2

Caregiver demographic data

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Race</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-35</td>
<td>Male 10%</td>
<td>White 85%</td>
<td>0-4,999 10.0%</td>
</tr>
<tr>
<td>36-40</td>
<td>Female 90%</td>
<td>Black 15%</td>
<td>5-9,999 12.5%</td>
</tr>
<tr>
<td>41-45</td>
<td>2.5%</td>
<td></td>
<td>10-14,999 10.0%</td>
</tr>
<tr>
<td>46-50</td>
<td>10.0%</td>
<td></td>
<td>15-19,999 7.5%</td>
</tr>
<tr>
<td>51-55</td>
<td>10.0%</td>
<td></td>
<td>20-24,999 12.5%</td>
</tr>
<tr>
<td>56-60</td>
<td>10.0%</td>
<td></td>
<td>25,000+ 17.5%</td>
</tr>
<tr>
<td>61-65</td>
<td>15.0%</td>
<td></td>
<td>Missing 30.0%</td>
</tr>
<tr>
<td>66-70</td>
<td>20.0%</td>
<td></td>
<td>( \bar{x} = 20,536 ), ( \text{SD} = 17,513 )</td>
</tr>
<tr>
<td>71-75</td>
<td>22.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76-80</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \bar{x} = 61.4 ), ( \text{SD} = 11.8 )</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Education</th>
<th>Employment</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 93%</td>
<td>0-8 yrs 22.5%</td>
<td>Yes 35%</td>
<td>Spouse 37.5%</td>
</tr>
<tr>
<td>No 7%</td>
<td>9-11 yrs 10.0%</td>
<td>No 65%</td>
<td>Child 52.5%</td>
</tr>
<tr>
<td></td>
<td>12 yrs 15.0%</td>
<td></td>
<td>Other 10.0%</td>
</tr>
<tr>
<td></td>
<td>13-15 yrs 30.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 yrs 5.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17+ yrs 17.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>( \bar{x} = 12.7 ), ( \text{SD} = 3.9 )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lives with Receiver</th>
<th>Receiver Illness</th>
<th>Length of Caretime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 72.5%</td>
<td>Physical 67.5%</td>
<td>0-1 yrs. 22.5%</td>
</tr>
<tr>
<td>No 25.0%</td>
<td>Alzheimers 30.0%</td>
<td>1-4 yrs. 30.0%</td>
</tr>
<tr>
<td>MISSING 2.5%</td>
<td>MISSING 2.5%</td>
<td>5-8 yrs. 27.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9-12 yrs. 12.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13-16 yrs. 7.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( \bar{x} = 4.6 ), ( \text{SD} = 4.5 )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-70</td>
<td>Male 40.0%</td>
<td>White 95.0%</td>
</tr>
<tr>
<td>71-75</td>
<td>Female 57.5%</td>
<td>Black 2.5%</td>
</tr>
<tr>
<td>76-80</td>
<td>MISSING 2.5%</td>
<td>MISSING 2.5%</td>
</tr>
<tr>
<td>81-85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>86-90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>91-95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>96+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MISSING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \bar{x} = 78.9 ), ( \text{SD} = 15.4 )</td>
<td></td>
<td></td>
</tr>
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</table>
Table 3

Service Use Means and Standard Deviations

<table>
<thead>
<tr>
<th>Services</th>
<th>X</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>12.2</td>
<td>9.3</td>
<td>(N=9)</td>
</tr>
<tr>
<td>Respite</td>
<td>10.7</td>
<td>9.0</td>
<td>(N=17)</td>
</tr>
<tr>
<td>Daycare</td>
<td>16.0</td>
<td>9.7</td>
<td>(N=8)</td>
</tr>
<tr>
<td>Counseling</td>
<td>3.0</td>
<td>0.0</td>
<td>(N=1)</td>
</tr>
<tr>
<td>Medical</td>
<td>11.8</td>
<td>10.2</td>
<td>(N=17)</td>
</tr>
<tr>
<td>Personal Care</td>
<td>14.3</td>
<td>9.1</td>
<td>(N=12)</td>
</tr>
<tr>
<td>Nursing Care</td>
<td>13.0</td>
<td>12.3</td>
<td>(N=5)</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>12.8</td>
<td>5.9</td>
<td>(N=4)</td>
</tr>
<tr>
<td>Regular Check</td>
<td>15.5</td>
<td>12.2</td>
<td>(N=4)</td>
</tr>
<tr>
<td>Housing</td>
<td>4.5</td>
<td>4.9</td>
<td>(N=2)</td>
</tr>
<tr>
<td>Household Chores</td>
<td>8.6</td>
<td>8.7</td>
<td>(N=11)</td>
</tr>
<tr>
<td>Meal Preparation</td>
<td>26.7</td>
<td>5.8</td>
<td>(N=3)</td>
</tr>
<tr>
<td>Legal/Financial Matters</td>
<td>20.0</td>
<td>0.0</td>
<td>(N=1)</td>
</tr>
<tr>
<td>Support Group</td>
<td>2.2</td>
<td>1.6</td>
<td>(N=5)</td>
</tr>
<tr>
<td>Referral</td>
<td>1.3</td>
<td>0.6</td>
<td>(N=3)</td>
</tr>
</tbody>
</table>

All means and standard deviations expressed in days per month, except for medical service means and standard deviations, which are expressed in days per year.
Table 4

Rotated Factor Matrix of Attribution Instrument Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ1</td>
<td>-.01470</td>
<td>.11179</td>
<td>.70731</td>
<td>-.22815</td>
</tr>
<tr>
<td>AQ2</td>
<td>.60856</td>
<td>.16756</td>
<td>-.15967</td>
<td>.10475</td>
</tr>
<tr>
<td>AQ3</td>
<td>-.53422</td>
<td>.42806</td>
<td>-.17459</td>
<td>.05319</td>
</tr>
<tr>
<td>AQ4</td>
<td>.29695</td>
<td>.05704</td>
<td>.27866</td>
<td>-.25839</td>
</tr>
<tr>
<td>AQ5</td>
<td>-.15066</td>
<td>-.09580</td>
<td>.77472</td>
<td>.03255</td>
</tr>
<tr>
<td>AQ6</td>
<td>.77806</td>
<td>.16881</td>
<td>-.02262</td>
<td>.00885</td>
</tr>
<tr>
<td>AQ7</td>
<td>.01013</td>
<td>.77151</td>
<td>.23372</td>
<td>.16355</td>
</tr>
<tr>
<td>AQ8</td>
<td>.79384</td>
<td>.14001</td>
<td>.86090</td>
<td>.19798</td>
</tr>
<tr>
<td>AQ9</td>
<td>-.12199</td>
<td>.02726</td>
<td>-.08804</td>
<td>.07971</td>
</tr>
<tr>
<td>AQ10</td>
<td>.28204</td>
<td>.52225</td>
<td>.11665</td>
<td>-.16495</td>
</tr>
<tr>
<td>AQ11</td>
<td>-.66375</td>
<td>.38979</td>
<td>.14435</td>
<td>.14953</td>
</tr>
<tr>
<td>AQ12</td>
<td>-.11283</td>
<td>.69748</td>
<td>-.02377</td>
<td>.08496</td>
</tr>
<tr>
<td>AQ13</td>
<td>-.46472</td>
<td>.65188</td>
<td>-.14381</td>
<td>-.22943</td>
</tr>
<tr>
<td>AQ14</td>
<td>.20894</td>
<td>.78589</td>
<td>.02740</td>
<td>.08731</td>
</tr>
<tr>
<td>AQ15</td>
<td>-.29110</td>
<td>.16094</td>
<td>.45725</td>
<td>.39776</td>
</tr>
<tr>
<td>AQ16</td>
<td>.11077</td>
<td>.27071</td>
<td>-.02304</td>
<td>.72780</td>
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<tr>
<td>AQ17</td>
<td>-.49773</td>
<td>.11753</td>
<td>.28995</td>
<td>-.02329</td>
</tr>
<tr>
<td>AQ18</td>
<td>.48841</td>
<td>.49084</td>
<td>-.18500</td>
<td>.40566</td>
</tr>
<tr>
<td>AQ19</td>
<td>-.37407</td>
<td>-.36207</td>
<td>.04532</td>
<td>.64387</td>
</tr>
<tr>
<td>AQ20</td>
<td>.20884</td>
<td>.02110</td>
<td>.03843</td>
<td>.83052</td>
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</tbody>
</table>
### Hypothetical and Actual Attribution

#### Model Item Clusters

<table>
<thead>
<tr>
<th>Hypothetical</th>
<th>Medical Model</th>
<th>Moral Model</th>
<th>Enlightenment Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compensatory Model</strong></td>
<td><strong>AQ2</strong></td>
<td><strong>AQ1</strong></td>
<td><strong>AQ4</strong></td>
</tr>
<tr>
<td><strong>AQ3</strong></td>
<td><strong>AQ6</strong></td>
<td><strong>AQ5</strong></td>
<td><strong>AQ8</strong></td>
</tr>
<tr>
<td><strong>AQ7</strong></td>
<td><strong>AQ10</strong></td>
<td><strong>AQ9</strong></td>
<td><strong>AQ12</strong></td>
</tr>
<tr>
<td><strong>AQ11</strong></td>
<td><strong>AQ14</strong></td>
<td><strong>AQ13</strong></td>
<td><strong>AQ16</strong></td>
</tr>
<tr>
<td><strong>AQ15</strong></td>
<td><strong>AQ18</strong></td>
<td><strong>AQ17</strong></td>
<td><strong>AQ20</strong></td>
</tr>
<tr>
<td><strong>AQ19</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual</th>
<th>Factor 2</th>
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<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1</strong></td>
<td><strong>AQ7</strong></td>
<td><strong>AQ1</strong></td>
<td><strong>AQ16</strong></td>
</tr>
<tr>
<td><strong>AQ2</strong></td>
<td><strong>AQ10</strong></td>
<td><strong>AQ5</strong></td>
<td><strong>AQ19</strong></td>
</tr>
<tr>
<td><strong>AQ3</strong></td>
<td><strong>AQ12</strong></td>
<td><strong>AQ9</strong></td>
<td><strong>AQ20</strong></td>
</tr>
<tr>
<td><strong>AQ4</strong></td>
<td><strong>AQ13</strong></td>
<td><strong>AQ15</strong></td>
<td></td>
</tr>
<tr>
<td><strong>AQ6</strong></td>
<td><strong>AQ14</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AQ8</strong></td>
<td><strong>AQ18</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AQ11</strong></td>
<td><strong>AQ17</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AQ17</strong></td>
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</tbody>
</table>

Table 5
Table 6

<table>
<thead>
<tr>
<th>Attribution Item</th>
<th>Response Percentages by Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td><strong>Moral</strong></td>
<td></td>
</tr>
<tr>
<td>AQ1</td>
<td>12.5</td>
</tr>
<tr>
<td>AQ5</td>
<td>7.5</td>
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<td>AQ9</td>
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<td>2.5</td>
</tr>
<tr>
<td>AQ17</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Medical</strong></td>
<td></td>
</tr>
<tr>
<td>AQ2</td>
<td>40.0</td>
</tr>
<tr>
<td>AQ6</td>
<td>65.0</td>
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<tr>
<td>AQ10</td>
<td>22.5</td>
</tr>
<tr>
<td>AQ14</td>
<td>30.0</td>
</tr>
<tr>
<td>AQ18</td>
<td>30.0</td>
</tr>
<tr>
<td><strong>Compensatory</strong></td>
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</tr>
<tr>
<td>AQ3</td>
<td>2.5</td>
</tr>
<tr>
<td>AQ7</td>
<td>7.5</td>
</tr>
<tr>
<td>AQ11</td>
<td>0.0</td>
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<tr>
<td>AQ15</td>
<td>2.5</td>
</tr>
<tr>
<td>AQ19</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Enlightenment</strong></td>
<td></td>
</tr>
<tr>
<td>AQ4</td>
<td>27.5</td>
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<td>AQ8</td>
<td>7.5</td>
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<td>AQ16</td>
<td>7.5</td>
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<tr>
<td>AQ20</td>
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Table 7

<table>
<thead>
<tr>
<th>Attribution</th>
<th>Item Response Means and Standard Deviations by Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral</td>
<td>Medical</td>
</tr>
<tr>
<td></td>
<td>$\bar{x}$</td>
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<tr>
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<td>4.1</td>
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<tr>
<td>AQ5</td>
<td>5.1</td>
</tr>
<tr>
<td>AQ9</td>
<td>5.4</td>
</tr>
<tr>
<td>AQ13</td>
<td>5.3</td>
</tr>
<tr>
<td>AQ17</td>
<td>5.9</td>
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</table>

<table>
<thead>
<tr>
<th>Compensatory</th>
<th>Enlightenment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\bar{x}$</td>
<td>SD</td>
</tr>
<tr>
<td>AQ3</td>
<td>5.4</td>
</tr>
<tr>
<td>AQ7</td>
<td>4.2</td>
</tr>
<tr>
<td>AQ11</td>
<td>5.8</td>
</tr>
<tr>
<td>AQ15</td>
<td>5.6</td>
</tr>
<tr>
<td>AQ19</td>
<td>5.5</td>
</tr>
</tbody>
</table>

(1=not at all agree, 7=very much agree)
Discussion

Caregiver literature suggests that caregivers of the frail elderly do not always use available professional services. Attribution literature suggests that beliefs about responsibility for causing and solving problems affect the way people react to outside help. In the present study, an attempt was made to validate a measure of attributions of responsibility for causing and solving problems among a group of caregivers. In addition, attribution and demographic variables were analyzed as possible predictors of formal service use.

Findings

The first hypothesis, that four factors related to each of the four hypothetical coping models would emerge from a factor analysis study was not statistically supported. There are several possible explanations for this finding. The first is that the hypothetical models do not exist in the real world and that attributions for causes and solutions to problems do not interact in the manner suggested by the Brickman model.

A second explanation is that the models do exist, but that the attribution instrument in its present form does not accurately measure what it purports to. At the present time no published study has validated the instrument on a group which had not been predetermined to endorse a particular attribution model. The present study failed to validate the instrument on an undetermined group.
The structure and content of the instrument items themselves also suggest inaccurate measurement. Many items are currently written in such a way as to have more than one possible meaning (see Appendix B), and several study participants reported having trouble answering the items because they "agreed with one part of the statement, but disagreed with the other part." Many items also contain phrases such as "stubborn and lazy", "a bad person", "a weak person", and "submit to the discipline of others" which are too negative to discriminate properly.

There is also an inconsistency in the instrument in that four sets of statements focus on the respondent's view of her/himself, while one set of statements focuses on the respondent's view of other people. This change in perspective may have tapped different attributions than was intended.

The second hypothesis, that scores on a measure of attributions of responsibility would predict varying levels of formal service use could not be tested in the present study because factor analysis failed to support the existence of the hypothetical attribution models. Four factors did emerge from factor analysis however. These factors were entered in a multiple regression analysis to test their predictive power on formal service use. Responses to instrument items had no predictive effect on formal service use.

This finding might also be explained by concluding that attributions of responsibility to problems and solutions do not interact as suggested. However evidence which did not reach
statistical significance suggests that the hypothetical models may exist in the real world.

Among the present group of caregivers, the existence and influence of the attribution models is suggested by several pieces of data. One is the consistent endorsement of the moral and compensatory models by the group as a whole. Totaling hypothetical model scores for each participant showed that 17 participants endorsed the compensatory model, 16 endorsed the moral model, and 3 equally endorsed the moral and compensatory models. In addition to this finding, the service use mean for the entire group was very small. The combination of a low service use mean and a strong endorsement of moral and compensatory models (which share an attribution of responsibility toward the self for the solution to a problem) is consistent with the second hypothesis, which stated that moral model participants would use lesser amounts of services than medical model participants.

A second piece of data, from the factor analysis study, is the partial match between factor 3 and moral model item clusters. This indicates that the attribution instrument items may be related in the way suggested by the theory proposed by Brickman et al. (1982), but that the present instrument cannot accurately portray this relationship.

The non-significant data presented here suggests that caregivers in the present study may be a homogeneous group of moral and compensatory model problem solvers who do in fact feel that they need to take care of their own problems, and not rely on outside help. At the present time however, these findings can only be regarded as speculation.
Another explanation for the lack of prediction among attribution models may be that for this particular group of caregivers, there were other variables more influential in help seeking behavior than attributions. In the present study, the variables having the most influence on the use of formal services were the age of the care-receiver, the caregiver's level of education, and whether or not the caregiver lives with the receiver.

Upon further analysis of the single most predictive variable, care-receiver age, it was found that participants who used the greatest amount of formal services were spouses whose care-receivers were suffering from Alzheimer's disease. This finding suggests that being an older caregiver who cares for someone with a poorly understood illness which manifests itself through behaviors such as memory loss, wandering and sudden mood changes increases the likelihood of formal service use, regardless of the existence of attributions of responsibility for causing and solving problems.

Limitations

There are several limitations to the present study which need to be considered. These limitations emphasize the need for caution when interpreting the results. The questionable validity of the attribution instrument has already been noted. At this point, no conclusions should be drawn in regards to caregiver attributions other than to say that they cannot be assessed accurately with the present instrument.

A second study limitation was the small sample size (N=40) and homogeneity of the participant group. Surveying a group this small restricted the variability of the responses and may not have provided
an accurate portrayal of caregivers in general.

A third limitation was the amount of missing data, which also restricted the interpretation and generalization of the data. Many participants chose not to include information about their income, and did not answer the questions pertaining to formal service use. It is left open to interpretation whether caregivers left these questions blank to signify non-use, or whether they chose not to answer them for some other reason.

The problem of interpreting missing data leads to another limitation, that of the use of self report data. In the present study, the information was provided by participants and could only be assumed to be accurate. Data of this kind is naturally more suspect, since it cannot be cross-checked.

A final study limitation was the lack of variation in the length of care-time among participants. In the present study, over half of the participants had been caregivers for four years or less and formal service use was minimal. However, it may be that caregiver needs and attitudes change over time and that formal service use increases as care-time increases.

**Future Research**

The results of this study suggest several steps which should be taken in continuing research on caregiver attributions and formal service use. The first step should be the validation of the attribution instrument used in this study. Items on the existing instrument need to be rewritten. One possibility is to write the items in two separate sets, one with items aimed at attributions of
responsibility for a problem and another with items aimed at attributions of responsibility for a solution. This would improve item clarity and increase the ability of the items to discriminate between differing attributional styles. The instrument should then be administered to a much larger subject pool, and the data analysed again for validity and reliability.

The validity of the present formal service use instrument also needs to be evaluated. Items on this instrument differ inherently in what constitutes low and high amounts of use. For example, high use of medical services may mean seeing a doctor once every week, while high use of legal and financial services may mean visiting a lawyer every other month. A second step for future research would be to develop or find a more accurate measure of service use.

A third step for future research should be to test a larger sample group of caregivers in order to increase the probability of gaining more accurate data. An effort should be made to include a wider spectrum of the caregiver population, in order to study possible differences due to variance in factors such as length of care-time, and also to see whether caregivers are actually homogeneous in their endorsement of attribution models.

Another consideration for future research in this area is the possibility of measuring attitudes against attitudes, instead of attitudes against self-reported behavior as was the case in the present study. Investigating the relationship between perceptions of service use need and responsibility attributions may be more appropriate than measuring actual service use.
Finally, research should focus on more closely on demographic variables such as care-receiver age, caregiver education level, caregiver/receiver living arrangements, and care-receiver illness to explore their influence on formal service use. Further study of the demographic variables which influence service use will help service providers develop more effective ways to offer services to caregivers, and may shed further light on the possible influence of attributions of responsibility in the lives of caregivers of the elderly.
References


Appendix A

Demographic Questionnaire

Please answer the following questions, either by writing your answer in the blank space or by putting a checkmark (✓) beside your answer.

1. How old are you? ______
2. What is your sex? ___ Male ___ Female
3. What is your race? ___ White ___ Black ___ Other
4. What was your average household income for the past year? ______
5. Do you have health insurance? (i.e. Medicare, Medicaid, Private) ___ Yes ___ No
6. How many years of school have you had? ______
7. Are you employed outside the home? ___ Yes ___ No
8. Who lives in your house? (check all that apply) ___ No one ___ Spouse ___ Care-receiver ___ Children ___ Other
9. What is the care-receiver's relationship to you? ___ Spouse ___ Parent ___ Other: ______
10. What is your care-receiver's age? ______
11. What is your care-receiver's sex? ___ Male ___ Female
12. What is your care-receiver's race? ___ White ___ Black ___ Other
13. What is your care-receiver's illness? (list major illness first if there is more than one)

14. How long have you been a caregiver? ______
Appendix B

Attribution Instrument

On the following pages you will see 20 statements that describe different ways in which we see ourselves and our problems. For each statement please indicate how well it describes the way you generally feel when you face problems in your life. Please answer according to how you feel about the ENTIRE statement, not just part of the statement. There are no right or wrong answers. Each person deals with problems in different ways.

Starting with statement 1, please place an X through the letter that best fits your thoughts and feelings. For example, take statement 1. If you feel that you agree with this statement (that in general you do bring problems on yourself and that you alone are responsible for solving them), then you would place an X through a letter toward the right side of the scale. If you feel that you disagree with this statement, then you would place an X through a letter toward the left side of the scale. If you feel less strongly about your agreement or disagreement with this statement, then you would place an X through a letter toward the middle of the scale. The stronger your feelings of agreement or disagreement are, the farther right or left your X should be on the scale. Please answer all questions, 1-20, in the same way.
- IN GENERAL, HOW WELL DOES EACH OF THE FOLLOWING FOUR STATEMENTS DESCRIBE HOW YOU SEE THE SITUATION YOU ARE IN WHEN YOU ARE CONFRONTED WITH A PROBLEM?

1) I bring the problems upon myself and I alone am responsible for finding a solution to my problems by facing them head on.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH

2) My problems are not my fault and I am dependent on others to solve them for me.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH

3) My problems are not my fault but I can solve the problems for myself if other people work with me and give me a chance.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH

4) My problems are my own fault but I cannot solve them by myself. I need to devote myself to some higher goal or authority to find a solution and get the support I need.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH
5) Someone who is sometimes lazy and stubborn, but basically a strong person who can face problems head on by myself.

   A B C D E F G
   NOT AT MODERATELY VERY
   ALL             MUCH

6) A weak person. One who is not to be blamed for my problems and someone who is often dependent on others for many things.

   A B C D E F G
   NOT AT MODERATELY VERY
   ALL             MUCH

7) Someone who is basically good but has not been given the opportunity to develop my strengths. Someone who can learn and grow if others give me a chance and work with me.

   A B C D E F G
   NOT AT MODERATELY VERY
   ALL             MUCH

8) Someone who feels out of control. A bad person who needs to submit to the authority, discipline, and support of others.

   A B C D E F G
   NOT AT MODERATELY VERY
   ALL             MUCH
- IN GENERAL, HOW WELL DOES EACH OF THE FOLLOWING FOUR STATEMENTS DESCRIBE WHAT YOU SHOULD TYPICALLY DO TO COPE WITH YOUR PROBLEMS?

9) Work harder to solve them. Pick myself up, admit I'm wrong, and get myself motivated to face the problems head on. Help myself and not rely on others.

   A  B  C  D  E  F  G
  NOT AT   MODERATELY   VERY
   ALL                 MUCH

10) Depend on others who know what they're doing. Don't take any chances on my own. Let other people who know what they are doing take control.

   A  B  C  D  E  F  G
  NOT AT   MODERATELY   VERY
   ALL                 MUCH

11) Work with others to find a solution. Use the chances others give me to the fullest. Develop my own competence and potentials.

   A  B  C  D  E  F  G
  NOT AT   MODERATELY   VERY
   ALL                 MUCH

12) Submit to the support and discipline of others. Develop a sense of belonging with others in the same boat as me.

   A  B  C  D  E  F  G
  NOT AT   MODERATELY   VERY
   ALL                 MUCH
-IN GENERAL, HOW WELL DOES EACH OF THE FOLLOWING FOUR STATEMENTS DESCRIBE WHAT OTHER PEOPLE SHOULD DO TO HELP YOU COPE WITH YOUR PROBLEMS?

13) Encourage and motivate me towards finding a solution for myself. Give me a pat on the shoulder for a "job well done".

A  B  C  D  E  F  G
NOT AT  MODERATELY  VERY

14) Actively solve the problem for me and make me feel more comfortable. Not blame me for my limitations or expect me to do what I can't do.

A  B  C  D  E  F  G
NOT AT  MODERATELY  VERY
ALL  MUCH

15) Understand where I'm coming from and be aware of the abilities I have. Teach me new skills that I can use in finding a solution myself.

A  B  C  D  E  F  G
NOT AT  MODERATELY  VERY
ALL  MUCH

16) Be there to make me feel that I'm not alone, but help me to see that my submission and obedience to higher ideals is necessary to control the problems I am guilty of.

A  B  C  D  E  F  G
NOT AT  MODERATELY  VERY
ALL  MUCH
- IN GENERAL, HOW WELL DOES EACH OF THE FOLLOWING FOUR STATEMENTS DESCRIBE THE BASIC STRENGTHS YOU MUST HAVE TO COPE WITH YOUR PROBLEMS.


A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH

18) Being cautious and not taking any risks on my own. Accepting the way things are now and the way they will be. Letting others do what has to be done.

A B C D E F G
NOT AT MODERATELY VERY

19) Effectively using the chances other people give me. Learning and using what they have to offer so I can develop myself and work out a solution to my problems.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH

20) Being able to accept support and discipline from others. Accepting my guilty nature and not being afraid to dedicate myself to something larger than me.

A B C D E F G
NOT AT MODERATELY VERY
ALL MUCH
Appendix C

Formal Service Use Instrument

On the following pages you will see listed 15 different services which caregivers sometimes use to help with their caregiving task. These are services provided by community organizations. Under each service there are some questions about your use of these services IN THE PAST YEAR in caring for your elderly loved one. Please answer each question for all the services listed, either by placing a check or by writing in your answer on the spaces provided.
1. TRANSPORTATION

Do you think you need assistance in providing transportation for your care-receiver?
Yes ___ No ___

Do you use hired help, or help from a community agency to provide transportation for your care-receiver?
Yes ___ No ___

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?

2. RESpite (relief provided by a sitter who comes into your home)

Do you think you need respite services to assist you with caregiving?
Yes ___ No ___

Do you use hired help, or help from a community agency to provide respite services?
Yes ___ No ___

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?

3. DAYcare (relief provided by sitters outside the home)

Do you think that you need daycare services to assist you in caregiving?
Yes ___ No ___

Do you use hired help, or help from a community agency provide daycare services?
Yes ___ No ___

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?
4. COUNSELING

Do you think that you or your care-receiver need counseling, either for personal or family problems or for nervous or emotional problems?

____ Yes  ____ No

Do you use hired help, or help from a community agency to provide counseling services?

____ Yes  ____ No

If you use hired or agency help, how often? (on the average)

________________________________________________________________________

If you don’t use hired or agency help, why not?

________________________________________________________________________

5. MEDICAL (check ups, surgery, prescriptions, etc..)

Do you think you need medical services to assist you with caregiving?

____ Yes  ____ No

Do you use medical services to assist you with caregiving?

____ Yes  ____ No

If you do use medical services, how often? (on the average)

________________________________________________________________________

If you do not use medical services, why not?

________________________________________________________________________

6. PERSONAL CARE

Do you think you need help providing personal care services to your care-receiver? (such as bathing, clothing, feeding).

____ Yes  ____ No

Do you use hired help, or help from a community agency to assist you in providing personal care services?

____ Yes  ____ No

If you use hired or agency help, how often? (on the average)

________________________________________________________________________

If you don’t use hired or agency help, why not?

________________________________________________________________________
7. NURSING CARE

Do you think you need help administering treatments or medication to your care-receiver?
___ Yes   ___ No

Do you use hired help, or help from a community agency to assist you in administering treatments or medication?
___ Yes   ___ No

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?

8. PHYSICAL THERAPY

Do you think you need help in administering physical therapy to your care-receiver?
___ Yes   ___ No

Do you use hired help, or help from a community agency to assist you in administering physical therapy?
___ Yes   ___ No

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?

9. REGULAR CHECK

Do you think you need help providing regular checking for your care-receiver? (that is, checking in with them at least five times a week to make sure they are alright).
___ Yes   ___ No

Do you use hired help, or help from a community agency to assist you in providing regular checking?
___ Yes   ___ No

If you use hired or agency help, how often? (on the average)

If you don't use hired or agency help, why not?
10. **HOUSING**

Do you think you need help finding a new place for your care-receiver to live, or with making arrangements to move in?

___ Yes    ___ No

Do you use hired help, or help from a community agency to assist you with housing arrangements?

___ Yes    ___ No

If you use hired or agency help, how often? (on the average)

______________________________________________________________________________

If you don't use hired or agency help, why not?

______________________________________________________________________________

11. **HOUSEHOLD CHORES**

Do you think you need help providing routine household chores for your care-receiver? (such as cleaning, washing clothes, etc.).

___ Yes    ___ No

Do you use hired help, or help from a community agency to help provide household chores?

___ Yes    ___ No

If you use hired or agency help, how often? (on the average)

______________________________________________________________________________

If you don't use hired or agency help, why not?

______________________________________________________________________________

12. **MEAL PREPARATION**

Do you think you need help preparing meals for your care-receiver?

___ Yes    ___ No

Do you use hired help, or help from a community agency to help you prepare meals?

___ Yes    ___ No

If you use hired or agency help, how often? (on the average)

______________________________________________________________________________

If you don't use hired or agency help, why not?

______________________________________________________________________________
13. **LEGAL AND FINANCIAL MATTERS**

Do you think you need help taking care of your care-receiver's legal matters, or with managing their personal affairs and money? (for instance paying their bills).

___ Yes ___ No

Do you use hired help, or help from a community agency to assist you?

___ Yes ___ No

If you use hired or agency help, how often? (on the average)

________________________________________________________________________

If you don't use hired or agency help, why not?

________________________________________________________________________

14. **SUPPORT GROUP**

Do you think that attending a support group would be helpful to you as a caregiver?

___ Yes ___ No

Do you attend a support group organized by a community agency?

___ Yes ___ No

If you attend an agency organized group, how often? (on the average)

________________________________________________________________________

If you don't attend an agency organized group, why not?

________________________________________________________________________

15. **REFERRAL**

Do you think you need help finding information about the kinds of services available to you, or with getting in touch with any of those services?

___ Yes ___ No

Do you use hired help, or help from a community agency to assist you in finding this information?

___ Yes ___ No

If you use hired or agency help, how often? (on the average)

________________________________________________________________________

If you don't use hired or agency help, why not?

________________________________________________________________________
Appendix D
Informed Consent Form

CAREGIVER SURVEY
Information and Informed Consent

Caring for an elderly family member or friend can be a difficult and stressful task. It is important to understand how caregivers feel about themselves when they face problems. It is also important to know about the kinds of community services they use when providing help for their elderly loved one. The purpose of this survey is to learn more about how caregivers feel about themselves, and about the kinds of services they use when caring for an elderly person.

You can help me by filling out the three attached questionnaires. Your name and answers will be kept confidential, and will be connected to each other only by the code number at the top of this page. If there are questions you do not wish to answer, you are free to omit them. Results of this survey will be made available upon request.

Sincerely,

Rik Troyer
Gerontology Program Assistant

As indicated by my signature below, I voluntarily consent to provide information for your study as explained above.

Print Name _______________________________ Age __________

Signature _______________________________ Date __________
Appendix E

Oral Instructions

This study is being done in order to finish my degree at school. I am looking at two parts of caregiving in my study. One part is the kinds of services that caregivers may use to help care for their care-receiver. The other part is the way caregivers feel about themselves when they face problems in their lives. The three questionnaires in this package should take you about thirty minutes to complete, but you can work on them on your own time.

Informed Consent

By signing this form you are giving me permission to use the information you provide in my study. Your information will remain confidential because this form will be separated from the rest of the packet, and no one except for myself will know whose name belongs with which set of information.

Demographic Questionnaire

These questions are asked in order to find out what kinds of people are caring for elderly relatives and friends. Please answer each one according to your present caregiving situation.

Attribution Instrument

These questions are asked in order to find out how you feel about yourself when you face problems. If you find that a statement is difficult to answer because you agree with part of it but disagree with another part of it, don't worry. Mark your answer according to your
overall feeling toward the entire statement.

**Service Use Questionnaire**

These question are asked in order to find out what kinds of help, outside of your family and friends, you might be using to care for your care receiver." They will also be instructed to "answer each question according to your present situation.

**Completing Study**

When you have finished answering the questions, place the instruments and the signed consent form in the envelope I have provided, and mail it. In a few days I will call you back to make sure the envelope was mailed."