

Attributions and Depression in Alzheimer's Disease Caregivers

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The present study tests the hopelessness theory of depression in 93 family caregivers of probable Alzheimer's Disease (AD) victims. Attributions, both global and specific to caregiving, the occurrence of pleasant and unpleasant events, and their interactions were used to predict caregiver depressive symptomatology. Although attributions for general life events were not related to depression, attributions for specific AD problem behaviors were significant predictors. Higher levels of depression were related to having stable, global attributions for specific AD problem behaviors. Reports of unpleasant events, pleasant events and problem behaviors were also predictive of depression. However, there was no interaction of attribution style with events in predicting depression. Results of this study provide further elaboration of the cognitive factors that may contribute to depression in caregivers.

KEY WORDS: Alzheimer's Disease; caregivers; depression.

INTRODUCTION

Several studies have found high rates of significant depressive symptoms among caregivers of Alzheimer's Disease (AD) patients (Schulz, Visintainer, and Williamson, 1990). As a result, a number of studies have tried to examine what factors place some caregivers more or less at risk for depression. Among the variables examined are the cognitive and affective appraisals and reappraisals of the caregiving situation (Haley, Levine, Brown, and Bartolucci, 1987; Lawton, Kleban, Moss, Rovine, and Glicksman, 1989; Vitaliano, Russo, Young, Teri, and Maiuro, 1991), the efficacy of one's coping with providing care (Zeiss, Gallagher-Thompson, Lovett, and Rose, 1992), and the premorbid personality of the caregiver (Hooker, Monahan, Shifren, and Hutchinson, 1992). Haley *et al.* (1987) have suggested that there are important individual differences in the degree to which caregivers experience the stress of the caregiving relationship. This study explored whether these differ-

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ences may be attributional style (i.e., the explanations one makes for why an event occurred.) To that end, this paper will examine caregivers' reports of their attributions about life events, both generally and specific to caregiving, in relation to their reports of depression.

The hopelessness theory of depression (Abramson, Metalsky, and Alloy, 1989) builds on the logic of the learned helplessness (Seligman, 1975) and the reformulated learned helplessness theories of depression (Abramson, Seligman, and Teasdale, 1978). In this theory, onset and maintenance of depression are explained through a conjunction of negative life events (the stress) and an attributional style, which explains the cause of negative life events in stable and global terms (the diathesis). In the case of a caregiver of a demented patient, the hopelessness model predicts that caregivers who habitually attribute negative events to stable, global causes would be more vulnerable to depression than caregivers with the opposite style (i.e., unstable, specific attributions). For example, if a caregiver experienced false accusations from the care receiver and attributed them to the illness (a stable, global attribution) she would be more likely to become depressed than if she attributed them to a particularly active day, a cause that is not likely always to be present. While several studies in other populations have supported this prediction (e.g., Metalsky, Halberstadt, and Abramson, 1987; Dixon and Ahrens, 1992), there have also been studies that disconfirm this prediction (e.g., Hammen, Adrian, and Hiroto, 1989).

Needles and Abramson (1990) have formulated a potential pathway for recovery from depression based on the hopelessness theory of depression. This route involves an interaction between the occurrence of positive life events and the attributions made for these events during a depressive episode. In college students, depressives who experienced an increase in positive events and who characteristically made stable, global attributions for the causes of positive life events were more likely to become hopeful and thereby less depressed (Needles and Abramson, 1980). Moreover, subjects who experienced a decrease in negative events and who had an enhancing attributional style (the tendency to make stable, global attributions for positive events) also reported decreased levels of hopelessness. Change in hopelessness, in turn, was found to be the proximal cause of changes in depression score (see also Edelman, Ahrens, and Haaga, 1994).

As applied to the caregiving situation, the hopelessness theory predicts that: those individuals who have an attributional style of making stable, global attributions for negative events will be more likely to attribute their family member's AD related behaviors to a stable, global cause. Therefore, they would be more likely to view the future as bleak and experience more depressive symptoms than those who attribute their family member's AD related behaviors to unstable, specific causes.

Several studies have examined hypotheses related to the reformulated theory of learned helplessness in caregiving (Cohen and Eisdorfer, 1988; Coppel, Burton, Becker, and Fiore, 1985; Morris, Morris, and Britton, 1989; Pagel, Becker, and Coppel, 1985). For instance, Coppel *et al.* (1985) and Morris *et al.* (1989) found that caregivers at risk for distress were characterized by their attributional style. Globality and stability were related to level of strain/depression. However, contrary to

the reformulated hypothesis, Cohen *et al.* (1988) found no relation between caregivers' depressive symptomatology and their stable or global attributions.

There are several reasons why further exploration of attributions and depression in AD caregivers is necessary. Although Coppel *et al.* (1985) and Morris *et al.*'s (1989) findings are in broad agreement and did in part support the hopelessness theory, discrepancies between the two studies remain. After partialling out the behavioral problems of the dementia patient, Morris *et al.* (1989) found that attributions and depression were no longer significantly related. The reliability of the two attribution scales used in these studies is not known and may be low due to the small number of questions. In addition, these studies (Cohen *et al.*, 1988; Coppel *et al.*, 1985; Morris *et al.*, 1989) did not examine the role of positive events and attributions for such events as possible mechanisms for preventing or alleviating depressive symptoms. Finally, these studies did not measure occurrence of events, which is necessary in order to capture the stress component in the hopelessness theory.

By assessing attributional styles, occurrence of life events, and depressive symptoms among caregivers of AD family members, at least three hypotheses from the hopelessness theory of depression can be tested: (1) Caregivers of AD family members who have a stable, global attribution style for unpleasant events, and who experience negative events, are more likely to be depressed. (2) This effect will be mediated by caregivers' specific attributions for their family member's AD-related behaviors; that is, caregivers who have a stable, global attribution style for unpleasant events in general are more likely to have a stable, global attribution style for specific events around caregiving. (3) Caregivers of AD family members who have a stable, global attributional style for positive events, compared with those who display opposite attributional styles, and who experience positive events, are less likely to be depressed.

Although not specifically hypothesized to be related to the hopelessness theory of depression, caregivers' perceptions of the care recipients' functional impairment were assessed. Different phases of the dementing process may create different demands for care and may stimulate varying levels of depression in the caregiver (Haley and Pardo, 1989; Miller, McFall, and Montgomery, 1991; Poulshock and Deimling, 1984). Assessment of functional impairment allowed for assessment of severity of illness as a potential third variable of the depression process.

In designing this study, we had planned to look at change in caregiver depression over time. The time interval between initial testing session and second testing session was 1 month. This period was chosen because research on the physical and mental health impact of caregiving has shown that there are fluctuations in perceived stress in just a 1-week time period (Connell and Schulenberg, 1990). However, we found limited variation in reports of depression during this time period. Correlational analyses indicated very little variability over time in depression symptoms ($r = .833$). Therefore, the significant stability of self-reported depressive symptoms permitted only a cross-sectional test of the hopelessness theory of depression.

METHOD

Subjects

The sample is comprised of 93 caregivers (men = 30, women = 63) of AD patients. Subjects were initially sought through the Alzheimer's Disease and Related Disorders Association support groups in Washington, D.C., northern Virginia and suburban Maryland and through advertisements in local newspapers. Subjects were later also sought through a drug treatment study for AD patients and from a physician's office.

Subjects had to consider themselves to be the primary caregiver, age 50 or older, be living with their AD afflicted relative, and report that the care recipient must have had a diagnosis of probable AD for at least 1 month. Prior research has suggested that caregivers attending support groups may differ from those not attending, having higher socioeconomic status and greater levels of distress (Anthony-Bergstone, Gatz, and Zarit, 1988; Malonebeach and Zarit, 1991), thus caregiver characteristics and attributions were compared by site. The caregivers differed in education ($F(3,87) = 3.52, p < .02$), and income $F(3,81) = 8.59, p < .001$ according to recruitment site. The caregivers from the drug treatment site were less affluent than caregivers from the other three sites. The caregivers from the drug treatment site also reported less education than caregivers from the support group site. However, they did not differ in attribution styles, depression scores, nor occurrence of events. Therefore recruitment site was not considered in subsequent analyses.

Measures

The *Beck Depression Inventory* (BDI; Beck, Rush, Shaw, and Emery, 1979) is a 21-item self-report measure of cognitive, affective, and somatic symptoms of depression. Individuals are instructed to choose the statement that best describes the way that they have felt during the past week. Previous studies have indicated that the BDI is a valid (Gallagher, Breckenridge, Steinmetz, and Thompson, 1983) and reliable (Gallagher, Nies, and Thompson, 1982) measure for older populations.

The *Older Person's Pleasant Events Schedule* (OPPES; Gallagher and Thompson, 1981; Hedlund and Gilewski, 1980) is a 66-item scale designed to measure frequency of engagement in pleasant activities and perceived enjoyment of the activities regardless of whether or not they were undertaken in the past month. Preliminary psychometric work has estimated internal consistency to be $\alpha = .94$ for the frequency scales. Test-retest reliability is $r = .84$ on mean frequency scores over a 1-month interval (Hanser, Thompson, Blazer, Futterman, and Reynolds, 1991).

The *Older Person's Unpleasant Events Schedule* (OPUES; Gallagher and Thompson, 1981; Hedlund and Gilewski, 1980) is a 64-item scale designed to measure the frequency of engagement in unpleasant activities and the perceived unpleasantness of the event whether or not it was undertaken in the past month.

The *Older Person's Attributional Style Questionnaire* (OPASQ), based upon the Attributional Style Questionnaire (Peterson, Semmel, von Bayer, Abramson, Metalsky, and Seligman, 1982), was designed for the purpose of this study to measure general attributional style. The OPASQ consists of 12 situations, six positive and six negative, which were selected from the Geriatric Scale of Recent Life Events (Kiyack, Laing, and Kahana, 1976) to provide situations that would be relevant to an elderly population. The events do not pertain to the caregiving situation *per se*. Individuals are instructed to specify one major cause of each situation and then to rate this cause on the attributional dimensions of stability and globality. Global attributions for negative events showed moderate internal consistency ($\alpha = .65$). In addition, stable attributions for negative and positive events showed moderate internal consistency ($\alpha = .73$, and $\alpha = .56$, respectively). However, global attributions for positive events had weak internal consistency ($\alpha = .47$). The dimensions of stability and globality were not significantly correlated for negative events ($r = .18$), nor for positive events ($r = .19$).

The *Caregiver's Attribution Scale for Problem Behaviors* (CASPB) was also designed for this study to measure caregivers' attributions for their family member's AD related problem behaviors and to measure the frequency of these specific events unique to caregiving. This measure was closely modeled after the Caregiver Intentionality Attribution Scale (CIAS; Florsheim, Zeiss, Futterman, Schwartz, and Gallagher-Thompson, 1991). The CASPB consists of six problem behaviors of dementia patients. Three are based on the CIAS' disruptive behaviors, and three memory-related problems were added (Teri, Truax, Logsdon, Uomoto, Zarit, and Vitaliano, 1992) for this study. The CASPB is divided into two sections. In the attribution portion of the scale, individuals are instructed to specify one major cause for the behavior and then to rate the cause of this behavior on the dimensions of stability and globality. In the stress portion, individuals are instructed to indicate how frequently the behavior occurs and how much this behavior upsets or bothers them. The wording of the CIAS' stability and globality questions, which refers to the attributes of the particular family member's behavior itself, has been changed for this study to resemble more closely the Attribution Style Questionnaire (Peterson *et al.*, 1982). For instance, caregivers were asked to rate one major cause of a family member's forgetting of recent events on the attributional dimensions of stability and globality. In this study, global attributions for specific events showed good internal consistency ($\alpha = .82$); while stable attributions showed moderate consistency ($\alpha = .50$).

Caregiver Ratings of Patient Status

The *Index of Independence in Activities of Daily Living* (Index of ADL; Katz, Ford, Moskowitz, Jackson, and Jaffe, 1963) is a measure of overall performance in six self-maintenance functions: bathing, dressing, toileting, transferring, continence, and feeding. The Index of ADL includes three descriptions of each function that reflect the abilities of the AD patient. Scores range from 0-12, with higher scores indicating a greater number of impediments.

The *Instrumental Activities of Daily Living* (IADL; Lawton and Brody, 1969) is a measure of the functional limitations in a person's capacity to perform higher self-care behaviors, such as telephoning, shopping, cooking, housekeeping, laundry, transportation use, and financial management. Scores range from 0-23, with higher scores indicating a greater impediment.

Procedure

Subjects were mailed the BDI, ADL, and IADL indices. The attribution measures for general and specific events were administered by telephone interview. One

Table I. Demographic Variables for Caregivers

Variable	n	(%)
Sex		
Women	63	68
Men	30	32
Relation to care recipient		
Wife	48	52
Husband	28	30
Child or child-in-law	16	17
Friend	1	1
Age		
50-59	13	14
60-69	44	47
70-79	32	35
80-85	4	4
Education		
Less than high school	10	11
High school	24	26
Some college	24	26
College	10	11
Post-college	23	26
Income		
Less than \$10,000	3	3
\$10,000-\$20,000	17	20
\$20,001-\$30,000	14	16
\$30,001-\$40,000	11	13
\$40,001-\$50,000	11	13
\$50,001-\$60,000	10	12
\$60,001-\$70,000	6	7
\$70,001-\$80,000	1	1
\$80,001-\$90,000	4	5
\$90,001-\$100,000	3	4
\$100,000-\$150,000	3	4
Over \$150,000	2	2
Employment		
Full-time	14	15
Part-time	8	9
Not employed	71	76

Table II. Means and Standard Deviations of Variables^a

Variable	Mean	SD
Care recipient age	74.7	8.9
Care recipient education	13.1	3.2
ADL	8.6	3.3
IADL	5.6	4.5
Beck Depression Inventory	8.7	6.3
Stable Attributions for Positive Events	35.4	4.7
Global Attributions for Positive Events	31.9	5.8
Stable Attributions for Negative Events	33.6	5.8
Global Attributions for Negative Events	26.4	8.2
Stable Attributions for Caregiving Events	38.7	4.0
Global Attributions for Caregiving Events	32.2	8.1
Older Person's Pleasant Events Schedule	70.8	17.3
Older Person's Unpleasant Events Schedule	32.1	18.2
Specific Caregiving Events	2.9	.5

^aADL = Activities of Daily Living; IADL = Instrumental Activities of Daily Living.

month later, subjects were asked to complete the OPPEs, OPUES, the stress portion of the CASPB and a second assessment of the BDI. For the cross-sectional analyses presented here, we do not use the BDI from the initial mailing as it was comparable to the second assessment ($t < -1.3, p < .2$).

Hopelessness theory predicts that attributional generality (a combination of stability and globality) will interact with stress to predict depression. However, whether the combination is the interactive or the additive composites of stability and globality is controversial (Carver, 1989; Carver and Scheier, 1991; Peterson, 1991). Interactive composites suggest that attributions that are both stable and global are particularly potent. Therefore, this study focuses on the interactive composites of the attribution dimensions.⁴

RESULTS

Sample Characteristics

Tables I and II include descriptive information about the sample. Most of the caregivers were spouses (82%), followed by daughters (12%). The mean age for caregivers was 67 years (SD = 7.2) with a range from 50 through 85. The majority of the caregivers were not currently employed outside the home. The median income was within the range of \$30,001-\$40,000. A wide range of duration of caregiving (5-180 months) and duration since care recipient's diagnosis (1-120 months), was found. Duration of caregiving was not related either to general attributions nor to depression (all r 's < .13). However, duration of caregiving was related to specific attributions ($r = .25$). Caregivers who have been providing care to a family

⁴The additive generality scale compound of the sum of the stability and globality dimensions was tested and the results did not change.

member for a longer period of time made more stable, global attributions for specific caregiving events. The average BDI for caregivers was 8.7 (SD = 6.3), which shows that this sample of caregivers was generally not depressed. The average number of pleasant events was 70.85 (SD = 17.3), while the average number of unpleasant events was 32.17 (SD = 18.27). This suggests that caregivers were experiencing more pleasant than unpleasant events. Consistent with Teri *et al.* (1992), memory problems in the AD family member were most frequent, but caregivers were more bothered by disruptive behaviors.

In order to determine average attributions made, the mean was compared to the midpoint on stability and globality for positive, negative, and specific events. In general, caregivers made more stable, global attributions. For instance, the stability average for positive, negative and specific event subscales were all above 5.5. The globality average for positive, negative, and specific event subscales were all above 4.4. Due to the non-normal distribution of the attributions, we used a \log^{10} transformation.

No significant differences on income, education, BDI, OPASQ, CASPB, and OPUES were found between caregiving men and women. Statistically significant differences were found on the OPPES $t(90) = 2.04$, ($p < .05$), with women reporting a greater occurrence of positive events than men. There were no statistically significant differences between caregiving spouses and caregiving children on income, education, BDI, OPASQ, CASPB, OPUES, or OPPES.

There has been a debate in the literature as to the significance of the care recipient's level of impairment on the caregiver's depression and burden scores. This study found that neither IADLs nor ADLs were related to depression (both $r_s < .20$, ns). Therefore, ADL and IADL ratings were not considered in subsequent analyses.

Attribution Style and General Negative Events Predicting Depression

Hierarchical multiple regression procedures, with analysis of partial variance (APV) as described by Cohen and Cohen (1983), were used to test the hypotheses. To test the first hypothesis that caregivers who have a stable, global attributional style for unpleasant events and who experience negative events are more likely to be depressed, variables were entered into the regression equation in the following order, predicting BDI depression: (1) OPASQ composite score on global, stable dimensions for negative events, (2) overall number of unpleasant events, and (3) the interaction of overall number of unpleasant events with negative attributional style. Results of this regression are reported in Table III.

When attributions for negative events were entered into the equation, they failed to predict depression ($F(1, 90) = 1.67$, $p > .2$). However, experience of more unpleasant events was related to greater depression ($F(1, 89) = 20.22$, $p < .001$, $\beta = .43$), accounting for a significant amount of the variance (18%). Contrary to our hypothesis, the interaction of the attributions for negative events and the experience of negative events did not significantly add to the prediction ($F(1, 88) = 1.57$, $p > .2$).

Table III. Attributions and Events Predicting Caregiver Depression

	Change in R square	F	p
General style			
1. Stability and globality for negative events	.018	1.67	.20
2. Negative events	.180	20.22	.00
3. Stability and globality for negative events × negative events	.014	1.57	.21
1. Stability and globality for positive events	.001	.11	.74
2. Positive events	.159	16.83	.00
3. Stability and globality for positive events × positive events	.000	.00	.97
Specific Style			
1. Stability and globality for specific events	.050	4.76	.04
2. Specific events	.062	6.26	.01
3. Stability and globality for specific events × specific events	.007	.71	.40
1. Specific events	.104	10.52	.00
2. Stability and globality for specific events	.008	.81	.37
3. Stability and globality for specific events × specific events	.007	.71	.40

Attribution Style and Positive Events Predicting Depression

An analogous regression was performed to test the effects of positive events on depression. When attributions for positive events were entered into the regression model, they did not predict depression ($F(1, 89) = 0.11$, $p > .7$). However, occurrence of pleasant events did predict depression ($F(1, 88) = 16.83$, $p < .001$, $\beta = -.40$), accounting for a significant amount of the variance (16%). The interaction between the attributions made for positive events and occurrence of positive events, however, failed to predict depression ($F(1, 87) = .002$, $p > .9$).

Attribution Style and Specific Events Predicting Depression

Hopelessness theory predicts that general attributional style should influence depression by affecting the specific attributions individuals make. In this study, since general attributions for negative events did not predict depression, they were not used again in the regression model. However, to test if specific attributions for negative events, as defined by care receiver's AD behaviors, were related to depression, the following regression model was used: (1) the CASPB composite score on the global, stable dimensions for specific events was entered first, (2) followed by the overall occurrence of specific events, and then (3) the interaction of overall number of specific events × specific attributional style for these events.

When entered into the regression equation, attributions for specific events did predict depression ($F(1, 90) = 4.76$, $p < .04$), and accounted for 5% of the vari-

ance. Those who made more stable and global attributions for AD related specific events were more depressed. The occurrence of specific events also predicted depression ($F(1, 89) = 6.26, p < .02, \eta^2 = .26$), and accounted for an additional 6.2% of the variance. However the interaction between the occurrence of specific events and the attributions made for these events did not predict depression ($F(1, 88) = .714, p > .4$).

Because duration of caregiving was related to specific attributions, its effect was tested in a regression analysis. Controlling for duration of caregiving by entering it first in the equation did not affect the variance accounted for by attributions for specific events or occurrence of specific caregiving events.

Other research has found that the effects of attributions on depression were no longer significant once occurrence of behavior problems was partialled out (Morris *et al.*, 1989). Similarly, in this study attributions no longer predicted depression after controlling for occurrence of problem behaviors ($F(1, 89) = .81, p > .3$); (see Table III).

DISCUSSION

A number of theoretical formulations of the caregiving process suggest that there are individual differences in the extent to which people experience the caregiving role (Haley *et al.*, 1987). In this study, we investigated the utility of the hopelessness theory of depression and its recovery model in predicting depression of AD caregivers. The model posits that depression is a function of attributional style and the occurrence of events. In multiple regression analyses of depression cross-sectionally, support was not found for the hopelessness theory of depression with respect to attributional style for general events. There was no consistent relationship between attributions made for general events and depression scores. Rather, unpleasant events alone accounted for 18% of the variance in depression scores. This is consistent with previous studies where associations between depressive symptoms and life events and chronic stresses have been found among older adults (e.g., Holahan, Holahan, and Belk, 1984; Norris and Murrell, 1984). Also, pleasant events alone accounted for 16% of the variance in depression scores.

Attributions for specific problem behaviors, however, were related to caregiver depression. Caregivers who viewed problems and events associated with the care recipient's disease as ongoing and pervading (stable, global) had higher depression scores than caregivers who viewed the disease as a time-limited stress and not pervasive in their or their family member's lives. These findings add to previous work indicating an association between AD problem behaviors and caregiver depression (Barnes, Raskind, Scott, and Murphy, 1981; Deimling and Bass, 1986; Pruchno and Resch, 1989a), especially when examining reactions to behavior, and not just reported frequencies (Pearson, Teri, Wagner, Truax, and Logsdon, 1993).

The relationship between caregiver reports of depression and specific attribution style for AD problem behaviors suggests several possible explanatory models. One is that caregivers who deal with the most troublesome behaviors are most likely to attribute causes of these behaviors to be unending and pervasive, and thus are

most at risk for depression. A second alternative is that caregivers who experience high levels of depression are more sensitive to behavior problems and are more likely to view these experiences as unending.

One question that needs further exploration is, why do attributions for AD problem behaviors predict depression while those for general events do not? In gerontological research, there are two broad approaches to the measurement of well-being: the bottom-up and the top-down theories (Krause, 1991). The bottom-up perspective states that judgments about specific areas of life are formed by the experiences encountered in those domains. The top-down perspective states that individuals form assessments that follow their ongoing evaluations of life, which in turn shape their perceptions of most events.

These approaches can be used to interpret the results for the two measurements of attribution style. First, attributions that assess explanations for events in general may be an example of the top-down perspective; we did not find support for general attributions explaining depressive symptoms. Attributions that gauge explanations for a particular area of life, in this case a family member's AD-related problem behaviors may be bottom-up judgments. Taken as a whole, our findings appear to support the bottom-up or specific perspective: Caregivers tend to make judgments about specific areas in their life and then subsequently synthesize these specific attributions to form an overall or global assessment of their well-being.

In addition to growing evidence for the specificity of attributions about caregiving, there is growing support for a connection between individual differences in personality aspects and perceptions and caregiver distress. Hooker *et al.* (1992) reported that persons who were high in the personality trait of neuroticism or low in dispositional optimism were less able to cope with the caregiving role and had poorer mental health outcomes. In addition, Anthony-Bergstone *et al.* (1988) suggest that personality characteristics may actually determine who takes on the caregiver role in the first place. Vitaliano *et al.* (1991) conclude that caregiver vulnerability (including personality and anger) is related to distress. Caregivers with high vulnerability and low resources (social support) have the highest burden scores. Thus, in agreement with other research, our study also finds that stressors alone do not explain depression, and that attributions about specific caregiving behaviors can affect mood and possibly coping and adaptation.

A clear limitation of the present study in testing the hopelessness theory of depression is our cross-sectional design. Use of a longitudinal design with longer time between depression measures would provide for the opportunity to better determine the possible causal relationship. Since this study utilizes concurrent reports, it is possible that depressive symptomatology in itself might cause one to make certain attributions or report more unpleasant events, rather than the reverse.

The relatively low degrees of depressive symptoms reported by these caregivers may serve to limit the generalizability of the findings. Compared to other caregiver studies focusing on help-seeking samples, the average BDI score of 8.7 is somewhat lower than means reported by Coppel *et al.* (1985) of 10.25, and Gallagher, Rose, Rivera, Lovett, and Thompson (1989) of up to 10.9, but somewhat higher than non-help-seeking caregivers (average score below 8, Gallagher *et al.*, 1989). Such lack of perceived strain may indicate that some caregivers denied that their family

member was a source of stress, and/or possibly reflect perceptions that caregiving is a positive experience (Kinney and Stephens, 1989; Lawton *et al.*, 1989).

In summary, the findings that caregivers' attributions for specific AD related problem behaviors varied according to depression levels further highlights the need for continued research on individual differences in the way in which people interpret these events. One of the most important goals of caregiver research is to determine the factors involved in depression and burden, so that effective interventions with AD caregivers can be developed. The finding that caregivers attribute behavioral problems to stable and global causes suggests that specific practical problems of management could be effective in clinical intervention strategies. These findings also begin to explain why cognitive-behavioral therapy has been effective in alleviating caregiver depressive symptomatology and strain (Borden and Berlin, 1990; Hinrichsen and Niederehe, 1994; Lovett and Gallagher, 1988; Pruchno and Resch, 1989b).

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Family Structure and Filial Responsibility Expectations Among Older Parents

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Previous research on the filial responsibility expectations of older persons has failed to examine variation in these expectations by family structure. This study employs three indicators of family structure as predictors of older people's norms of filial responsibility: the marital status of the elder, the gender composition of the offspring network, and the proximity of children. Hypotheses based on dissonance theory and two models of family caregiving are formulated and tested. Data were obtained from a sample of 257 mothers and 141 fathers aged 65 and older via a telephone survey. No differences in filial responsibility expectations were found for either fathers or mothers according to the gender composition of the offspring network or the geographic proximity of children. Formerly married fathers have higher expectations for filial responsibility than currently married fathers, but there is no comparable difference among mothers. Conclusions suggest that elderly men, at least, may adjust their expectations for assistance from children to their own needs, but that older parents in general hold norms for filial responsibility that do not take into account the capacities of their children to provide such assistance.

KEY WORDS: filial responsibility; parental expectations; family structure.

INTRODUCTION

The literature on family caregiving for the frail elderly has clearly established that the family is the primary source of care, and that family members make considerable sacrifices to assist aging parents (Dwyer and Coward, 1992; Hamon and Blieszner, 1990; Mancini and Blieszner, 1989). The extent to which elderly parents want or expect their offspring to make such sacrifices has received somewhat less frequent attention, although the concept of filial responsibility expectations has appeared in the literature at least occasionally over the past 50 years (e.g., Dinkel, 1944).

Filial responsibility expectations refer to the extent to which adult children are believed to be obligated to provide support and assistance to their aging parents

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