The Contribution of Attachment to Burden in Adult Children of Institutionalized Parents With Dementia

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The increasing numbers of elderly persons in the population have resulted in greater prominence for the caregiving role in adult children. Caring for an elderly dependent parent is often difficult and stressful, especially when the parent has a progressive dementia such as Alzheimer's disease. The chronic stress of caring for a dementia victim has significant consequences for the caregiver's physical and mental health and is considered to be disruptive and damaging to family relationships and mental well-being (Brody, 1989). Caregivers commonly report elevated levels of anxiety, depression, hostility, worry, and marital stress (Anthony-Bergstone, Zarit, & Gatz, 1988). Dementia caregivers deal with sadness and a feeling of loss as well as fear for their own health and future (Ronch, 1989). Formal services do not alleviate the difficulties and symptoms even when respite care is provided (Lawton, Brody, & Saperstein, 1991).

The strains that caregivers experience have been collectively called caregiver burden and include two dimensions: (a) difficulty associated with specific caregiving responsibility and (b) psychological symptomatology (Anthony-Bergstone et al., 1988; Stephens, Kinney, & Ogrocki, 1991). There are numerous factors that may influence caregiver burden. Some studies have focused on caregiver demographics, including relation to the dementia patient and gender. These studies found that women appeared more likely than men to assume a caregiving role (Brody, Dempsey, & Pruchno, 1990) and to be caring for elders with greater cognitive and physical limitations (Miller, McFall, & Montgomery, 1991). Other studies have focused on dementia disease severity. One recent study found, for example, that patient illness characteristics accounted for 18% of the variance in caregiving difficulty and 7% of the variance in psychological symptoms (Hinrichsen & Niederehe, 1994). Still other studies have investigated perceptions of caregiving adequacy, level of caregiving behavior, and caregiving coping style as they impact caregiver burden. Rankin, Haut, and Keeferover (1992) found that caregivers who had higher levels of caregiving behavior and perceived that the patient's disease was severe had more caregiving difficulty than other caregivers. The authors also found that lack of coping skills was a significant predictor of psychological symptomatology.

Excessive caregiving difficulty and psychological symptomatology may lead to institutionalization of the ill parent (Stephens et al., 1991; Zarit & Whitlatch, 1992). A common misconception that placement produces permanent relief for families has been countered by research on burden of families of institutionalized demented elders (Crispi, Fisher, & Ronch, 1992; Stephens et al., 1991). Although there may be some relief for the caregivers when the elderly de-
mented relative is placed in an institutional setting (Zarit, Anthony, & Boutsalis, 1987), this relief seems to be mainly in terms of their social lives rather than in terms of mental or physical health (Stephens et al., 1991). Much of the research has shown that caregivers experience considerable stress, distress, and guilt after placement, even when compared with caregivers of dementia patients who reside at home (Kinney & Stephens, 1989). Feelings of guilt, sadness, and anxiety may be more severe if the caregiver has negative perceptions of how well the nursing home is caring for his or her parent (Brody et al., 1990).

Why then do families remain involved after placement, especially given that continued involvement is accompanied in many cases by considerable caregiving difficulty and a high level of psychological symptomatology? Gatz, Bengtson, and Blum (1990) found that close feelings for a parent were among the motives for care provision by adult children. Mullen (1992) also found that long-term caring for relatives with dementia involved adjustments in the attachment relationship, including opportunities both for emotional closeness and preparation for death of the patient with dementia. It is therefore valuable to investigate attachment bonds between children and elderly institutionalized parents to see the extent to which this affectional relationship contributes to or alleviates caregiver burden.

Attachment is an independent behavioral system based on the relationship between a mother and young child (or caregiver and child), according to Bowlby (1988). This relationship that the child slowly develops with the principal caregiver and one or two others is an increasingly complex reciprocal relationship that provides comfort and assistance in times of need, as well as grief and disruption if severed (Levitt, 1991). The system is activated when the child feels threatened and senses that the attachment figure is not readily available. Once the system is activated, the child behaves in specific ways, such as crying or clinging, that are designed to reestablish proximity to the attachment figure (Main & Weston, 1982).

The attachment behavioral control system is regulated by inner working models, which are experience-based sets of expectations that the child develops concerning the individuals within the attachment relationship, namely the attachment figures, and the self (Bowlby, 1988). The working models contain both historical and current representations of the attachment relationship and the rules that govern the interactions, providing the individual with the ability to predict future interactions (Berman & Sperling, 1994).

Attachment in adulthood can be viewed as a continuation of the stable behavioral system established in childhood and developed through a lifetime of relationship experiences (Antonucci, 1993). Attachment behavior appears throughout the life cycle especially in times of emergency or when the individual is threatened in some way. These behaviors, designed to establish proximity, may appear in adulthood as letter writing, visiting, gift-giving, and calling the parent on the phone (Cicirelli, 1991), or as calling, crying, or thinking about the spouse (Berman, 1988).

Parents, spouses, and children remain attachment figures of primary importance throughout life, and provide safety and protection through difficult times. It is expected that adults will continue to turn to primary attachment figures, including parents, in times of worry, sickness, and need for reassurance (Antonucci, 1993).

Individual differences in attachment can be viewed with respect to differing attachment styles in adulthood (Shaver & Hazan, 1993). Just as in childhood, attachments in adulthood can be considered secure, anxious-ambivalent, or avoidant (Lewis & Feiring, 1991). Attachment style that is associated with healthy functioning in early life operates in a similar manner in adulthood (Hazan & Shaver, 1990). Main (1991) found that secure children and adults had easy access to prior attachment experiences whereas insecure individuals had difficulty remembering such experiences. Bretherton (1991) found that secure adults were able to communicate about attachment relationships with ease, that insecure-avoidant adults tended to be defensive with respect to attachment relations, and that ambivalent adults were preoccupied with conflicts related to attachment. Hazan and Shaver (1990) found that secure respondents exhibited confidence, valued relationships with others, had more self-mastery, and greater overall well-being than anxious-ambivalent or avoidant respondents.

Lifespan attachment may be viewed as a trait, an enduring style of interacting with others that is stable over time and influencing future relationships. From this viewpoint, a secure child will be competent at a later age due to the possession of the secure attachment trait, whereas an insecurely attached child will be incompetent due to a lack of that trait (Lewis & Feiring, 1991).

However, it has been suggested that the trait approach is not sufficient to explain an individual's social competence in later life. Therefore, an environmental approach has been proposed that is trait-based rather than trait-based, and holds that measures of secure attachment at different points in the lifespan should reflect environmental variables at those times (Lewis & Feiring, 1991).

Although sometimes considered separately, an individual's competence may be the result of both trait and environmental factors. Lewis and Feiring (1989) have shown in their studies with young children that neither the environmental nor the trait approach is a sufficient model to explain the outcome of a child's social competence, but that the trait and environmental factors mutually influence each other. Others agree that attachment is best conceptualized as the relationship between the working model of attachment (symbolic attachment) and the present environment (Berman & Sperling, 1994).

Berman and Sperling (1994) argued that caregiving is an integral part of the attachment system in adult attachment relations. They maintained that emotions that activate attachment behaviors, namely fear of danger and threats, also activate caregiving, that the
attachment system is reciprocal. When children are grown, the relationship remains reciprocal, with most parents both providing help to and receiving help from their children.

Cicirelli (1991) also proposed that there was a relationship between attachment and caregiving. He proposed that adult children usually maintain regular contact with aging parents and tend to feel affectional closeness toward them. He posited that once attachment has been established in childhood a system of protective behavior develops within the child's attachment system that is designed to protect the attachment figure, the aging parent, from harm. When the attachment figure is threatened by illness, the adult child will attempt to engage in caregiving behaviors to help protect the aging parent from harm and preserve the attachment bond.

At this point, almost no research has addressed the caregiving system per se and how it relates to adult relationships (Shaver & Hazan, 1993). The current study is a contribution to the investigation of predictors of caregiver burden in adult children attempting to deal with a parent with dementia after the parent has been institutionalized. Acknowledging first that demographic characteristics have been found to contribute to burden, the study went beyond those factors to investigate some aspects of the changing relationship between the child and the parent with dementia, specifically the attachment relationship. It was thought that disruption of the attachment relationship between the caregiving child and the parent with dementia might be a contributing factor to caregiver burden. The objectives of the current study were to examine the pattern of family caregiver burden in children of institutionalized parents with dementia and to examine the quality and type of attachment bonds between middle-aged children and their elderly parents with dementia in order to more fully understand the dimensions of parent-child attachment in this population and the relationship between attachment and caregiver burden.

Methods

Participants

Two hundred ninety-four questionnaires were initially mailed to potential participants (156 in nursing home 1, 45 in nursing home 2, and 93 in nursing home 3). One hundred four were returned. Of these, 85 were usable, 10 were refusals, 5 were ineligible (they were not an adult child of an AD parent or they were the second caregiver in the family to respond), and 4 patients had died. The usable return rate on the first mailing was 85 out of 294, or 29%. A follow-up postcard and second mailing of the same questionnaire yielded an additional 23 returns, all usable. This brought the total return to 108 out of 294, or 37%. This is slightly higher than what was expected according to Shaughnessy and Zechmeister (1990), who reported that mail surveys typically yield a return rate of approximately 30%.

The participants were adult caregiving children of dementia patients who resided in one of three nursing homes. Slightly more than half of the respondents were female (56%), which is lower than in similar studies (Brody, 1989; Stephens et al., 1991). The mean age was 56 years, and most were married (77%). The sample was predominantly Caucasian (94%) and well educated, with 68% having attended college. Most were employed full-time (54%) and had income levels in the $40,000 to 49,999 range. Fifty-three percent of the respondents were Jewish, reflecting the fact that one of the nursing homes had a predominantly Jewish population. The mean time a parent had been in nursing home care was 3.3 years. Table 1 presents the demographic information for this sample.

A power analysis was done to determine the sample size needed for this study. The current study had four major independent variables — caregiving behavior, attachment preoccupation, perceived disease severity, and attachment style — with one moderating variable, perceived caregiving adequacy, yielding four degrees of freedom. For a medium effect size and an alpha level of .05 in a multiple regression analysis with five independent variables and one moderator, a sample size of 97 was required to obtain a power of .80 (Cohen, 1988).

Table 1. Demographic Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
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<td></td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>56.5</td>
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<tr>
<td>Male</td>
<td>47</td>
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<tr>
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<tr>
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<tr>
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<tr>
<td>Widowed</td>
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<td>7.5</td>
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<tr>
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<tr>
<td>Black</td>
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<tr>
<td>Hispanic</td>
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<tr>
<td>Protestant</td>
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<td>18.9</td>
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<tr>
<td>Jewish</td>
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<td>52.8</td>
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<tr>
<td>Other</td>
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<td>5.7</td>
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<td>Retired</td>
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<tr>
<td>Full-time</td>
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<td>53.8</td>
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<tr>
<td>Unemployed</td>
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<td>College</td>
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<td>Grad school</td>
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<tr>
<td>Income</td>
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<td>&gt;$70,000</td>
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<tr>
<td>Age</td>
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</tr>
<tr>
<td>Years in nursing home</td>
<td>M = 3.3</td>
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</tbody>
</table>

Note: Frequencies vary due to missing data. Sample N = 108.
Instruments

Parental Preoccupation Scale. — This scale, which yielded the attachment preoccupation predictor variable, was an adaptation of the ex-spouse interview-based measure of adult attachment (Berman, 1988). It was based on responses to seven items in Likert-type format. Respondents circled a score of 1 (low) to 5 (high) for each item. The total score was obtained by adding the scores of the seven items, yielding one continuous variable with a possible range of 7 to 35.

The seven questions on the scale were designed to measure salience of attachment thoughts during the prior two weeks, feelings about missing the parent, and thoughts about the relationship with the parent. Items in this original scale were submitted to a principle components factor analysis. The items (N = 60) produced a single-factor accounting for 55% of the variance. The internal consistency reliability coefficient for the scale was .84 (Berman, 1988).

The scale was later adapted to apply to attachment preoccupation between 129 children in transition to college and their parents (Berman & Sperling, 1991). The internal consistency reliability coefficient for items related to frequency of thoughts about the parent ranged from .80 to .82, with a test-retest stability of from .52 to .64. The internal consistency reliability coefficient for items related to thoughts of missing the parent ranged from .40 to .42 with a test-retest stability of .52 to .81 (Berman & Sperling, 1991). The original scale was altered for the current study so that references to spouse in the original scale were changed to references to parent. For the current study, the internal consistency reliability coefficient was .89.

Attachment Style Scale. — (adapted from Hazan & Shaver, 1990) This scale yielded the attachment style predictor variable. It provided three statements that described feelings of attachment. Respondents were asked to place a check mark next to the statement that best described their feelings. The first statement, characteristic of the avoidant type of insecure attachment, described feelings of being uncomfortable when others are close, difficulty trusting others or depending on others, and nervousness when others get too close. The second statement, characteristic of the anxious/ambivalent attachment type, described feelings of wanting to be closer to others than they would like, worries that others don’t love them, and feelings that others are scared away by those feelings. The third statement, characteristic of the secure attachment type, described feelings of being able to get close to and depend on others, and not worrying about abandonment or others getting too close.

A recent longitudinal study of 177 adults provided empirical evidence to support the temporal stability of the attachment style measure. Kirkpatrick and Hazan (1994) sent a follow-up survey to the adults who had responded to their newspaper survey on adult attachment four years earlier (Hazan & Shaver, 1990). They found that attachment style was stable over the time span between surveys. Overall, 70% reported the same attachment style on the two surveys, a significant finding based on the chi-square test of independence, $\chi^2 (4, N = 172) = 86.7, p < .001$. The authors felt that this stability rate was comparable to similar measures used with children and quite high in light of the fact that the scale is a single-item measure. They suggested, based on their findings, that attachment style choice reflects both the quality of current relationships and a trait-like stability.

The scale was altered for the current study so it referred to parent rather than love partner. In the current study, attachment style was reduced to a dichotomous variable, with 0 denoting insecure attachment style and 1 denoting secure attachment style. This was done because the numbers in the two insecure categories were small compared with the secure category. A total of 17 (16.3%) scored in the avoidant category, and 8 (7.7%) in the anxious/ambivalent category, yielding a total of 25 (24%) in the insecure category. Another 79 (76%) scored in the securely attached category. Four respondents chose not to answer the question.

Dementia Behavior Scale. — (adapted from Haycox, 1984) This scale, which yielded the perceived disease severity predictor variable, was a rating scale for assessing the level of behavior impairment of dementia patients. Categories included language conversation, social interaction, attention, spatial orientation, motor performance, bowel and bladder behavior, eating/nutrition, and dressing/grooming. Within each category were statements that could be used to characterize the individual’s current behavior. The statements within each category were presented in order from least impaired (0) to most impaired (6). The respondent was instructed to underline the statement or portion of the statement within each category that was characteristic of the parent with dementia. The scale score was obtained by adding the scores from each of the categories. Total scores could range from 0 to 48.

According to Haycox (1984), there was high interrater reliability (.90), high intra-rater reliability (.97), and high correlation with clinical judgment of dementia (average rank correlation = .66). The scale was adapted in the current study to allow nonprofessional caregivers to complete it. For the current study, the internal consistency reliability coefficient was .87.

Background information. — Demographic information was obtained from responses on the questionnaire. The respondents were asked caregiver age, education level, gender, and marital status. They were also asked questions regarding the date when the parent with dementia was admitted to a nursing home, the frequency of various kinds of caregiving behavior (visiting, gift-giving, phoning, and writing), and their perceived caregiving adequacy, including the degree to which they felt that their caregiving behavior, help from others, and the
nursing home helped their relationship with their parent. The current study hypothesized that the impact of the adult child's caregiving behavior on subsequent caregiving difficulty and psychological symptoms would depend on the caregiver's perception of the adequacy of that behavior. The literature has shown that caregiving behavior sometimes contributes to and sometimes alleviates caregiving difficulty and psychological symptoms (e.g., Rankin et al., 1992). Therefore, the relationship between caregiving behavior and perceived caregiving adequacy might accurately be thought of as moderational, with different combinations of caregiving behavior and perceived caregiving adequacy producing different levels of impact on caregiving difficulty and psychological symptoms.

A moderational relationship exists if the moderator affects the coefficient of the predictor variable. For example, high levels of the predictor variable, caregiving behavior, might normally result in lower caregiving difficulty and psychological symptoms. However, the moderator might lessen the effect. Therefore, if a moderational relationship exists, the relationship will be reduced. This moderational pattern may better explain the conflicting findings reported in the literature concerning caregiving behavior and its impact on caregiving difficulty and psychological symptoms.

The moderational relationship between the predictor variable, caregiving behavior, and the moderator, perceived caregiving adequacy, was tested by creating an interaction variable that was the product of the two variables. This is a common way to study the joint influence of two variables on an outcome variable in multiple regression analyses. The two variables are simply multiplied together and entered as a single variable into the equation. If there is a statistically significant relationship between this product variable and the outcome variable, the test of significance in the regression will reveal it (Kerlinger & Pedhazur, 1973).

Caregiving Hassles Scale. — The Caregiving Hassles Scale (Kinney & Stephens, 1989), which yielded the caregiving difficulty outcome variable, provided a list of daily irritants and hassles that may affect caregivers of a dementia patient. The scale has been used with both community-based caregivers (Kinney & Stephens, 1989) and caregivers whose relative is institutionalized (Stephens et al., 1991). There were 39 caregiving events on this measure that were potentially bothersome or annoying to the caregiver, including, for example, handling the parent's finances, doing the parent's laundry, taking the parent to appointments, handling legal issues concerning the parent, parent criticizing or complaining, parent declining mentally, extra expenses due to caring for parent, and friends not understanding about parent. The respondent was able to check whether or not each of the events occurred within the last week and, if so, the degree of distress associated with it, from 1 (didn't bother them) to 4 (bothered them a great deal). Because the current study surveyed caregivers of institutionalized patients who might not visit weekly, the instructions were modified to refer to whether or not the event occurred the last time the caregiver visited the patient. A total score was obtained by adding the scores associated with all the events, yielding a single, continuous variable with a range of 0 to 156 (most severe). For the current study, the internal consistency reliability coefficient was .93.

The wording in the scale was altered to refer specifically to parents. Three items were removed from the original scale because they did not pertain to a nursing home resident (events related to getting temporary outside care for the patient).

Brief Symptom Inventory (BSI). — (Derogatis, 1993; Derogatis & Spencer, 1982) The BSI is a commonly used scale that measures psychiatric symptoms. In the current study, the BSI yielded the psychological symptomatology outcome variable. It was designed to reflect patterns of symptoms of both psychiatric and nonclinical populations (Derogatis, 1993).

Respondents were asked to check whether or not they had experienced each item within the last seven days. If they had not, they responded by circling the 0. If they had, they indicated the severity of the symptom by circling 1 (low) through 4 (high). The total severity score was calculated by adding together the scores for all nonzero items and dividing by the number of nonzero responses, yielding a symptom total.

Generally, internal consistency reliability coefficients for the dimensions of the BSI have ranged from a low of .71 on psychoticism to .85 on depression using alpha coefficients (Derogatis, 1993). For the current study, the internal consistency reliability coefficient was .97.

Procedures

The directors of social services at the nursing homes provided lists of the caregivers who met study criteria. A letter of introduction was sent by mail from the social services director to eligible caregivers, followed two weeks later by the questionnaire packet, the informed consent, and a self-addressed stamped return envelope. If no response was received within two weeks, a follow-up postcard was first sent as a reminder, then followed by a second questionnaire. The procedure was altered slightly for one of the nursing homes, which chose not to provide a list of potential participants. For this facility, two complete sets of questionnaires were mailed out by the facility, two weeks apart.

Results

A correlation matrix displays intercorrelations among the predictor variables and the dependent variables. In addition, the intercorrelations between the other predictors and an interaction term are presented. Descriptive statistics and reliabilities are also included. Table 2 presents the correlation matrix.
Table 2. Zero-Order Intercorrelation Matrix of Study Variables

<table>
<thead>
<tr>
<th>Scale</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attachment style</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attachment preoccupation</td>
<td>23.20</td>
<td>6.69</td>
<td>-0.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived disease severity</td>
<td>27.91</td>
<td>12.45</td>
<td>-0.08</td>
<td>0.23*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interaction variable</td>
<td></td>
<td></td>
<td>-0.07</td>
<td></td>
<td>0.16</td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>5. Caregiving difficulty</td>
<td>29.35*</td>
<td>22.24</td>
<td>-0.26**</td>
<td>0.16</td>
<td></td>
<td>0.00</td>
<td>0.15</td>
<td>0.93</td>
</tr>
<tr>
<td>6. Psychological symptomatology</td>
<td>1.21</td>
<td>0.64</td>
<td>-0.38**</td>
<td>0.31**</td>
<td>0.19*</td>
<td>0.12</td>
<td>0.34**</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Note: Internal consistency reliability coefficients presented on diagonal in bold lettering. Sample N = 108.

*Square root value.

*p < .05; **p < .01.

The interaction variable was created by multiplying the caregiving behavior variable by perceived caregiving adequacy. This interaction term was created because it was thought that the effect of caregiving behavior would be moderated by the caregiver's perceived adequacy with respect to caregiving effectiveness.

Two hierarchical multiple regressions were performed, one for each dependent variable (caregiving difficulty and psychological symptomatology). In each regression analysis, the demographics were covaried by entering them on the first step, thereby partialling out their effect. The predictors were then entered as a set in the second step of each analysis.

In the regression analysis for caregiving difficulty, the $F$ statistic associated with the change in $R^2$ in Step 1 (demographics) was not significant. On the second step, however, the overall $F$ was significant at the .05 level, with the predictors explaining 12% of the variance. On closer examination, it was seen that the key value associated with the beta for attachment style ($\beta = -0.31$), was significant at the .01 level. Table 3 presents these results.

In the analysis for psychological symptomatology, the $F$ statistic associated with the change in $R^2$ in Step 1 (demographics) was not significant. However, the overall $F$ on the second step was significant at the .01 level, with the predictors accounting for 22% of the variance. The key value associated with the beta for attachment style ($\beta = -0.36$) was significant at the .01 level, and for attachment preoccupation ($\beta = 0.24$) was significant at the .05 level. Table 4 presents these results.

Generally, the results of these analyses indicated that attachment style was the best predictor in all cases. Additionally, attachment preoccupation was a predictor for psychological symptomatology but not for caregiving difficulty. Perceived disease severity was not a significant predictor for any outcome variable. Also, there was no moderational relationship caregiving behavior and perceived caregiving adequacy for any outcome variable.

Discussion

Developmental researchers acknowledge that the individual is a "highly complex system in which biological, cognitive, emotional, and social elements are powerfully intertwined" (Bronfenbrenner, Kessel, Kessen, & White, 1986, p. 1223). Therefore, many interrelated factors are likely to contribute to caregiver burden in this population. The current literature has shown that demographics, personality characteristics, and caregiving context all affect burden. Furthermore, the individual is seen as one part of a complex system of reciprocal interactions in which behavior is a result of many variables. Therefore, it is also important to consider that not only do these factors affect burden, but burden is also likely to affect those factors in a reciprocal manner.
Each factor that contributes to burden is worthwhile investigating within this interplay system. Due to the admitted complexity of the system, individual factors may account for a modest, though significant, portion of the variance. The current study demonstrated that factors beyond sample demographics contribute to a significant degree to caregiver burden in the families of patients with progressive dementia such as Alzheimer's disease. A small but significant portion of the variance in this study was accounted for by attachment style and attachment preoccupation. For comparability to previous studies, it was necessary to examine demographics such as marital status, gender, education, and years the parent had been in nursing home care as they potentially related to outcome. After taking these variables into account, it was possible to proceed to an investigation of the outcome variables of interest: attachment style, attachment preoccupation, perceived disease severity, and caregiving behaviors as modified by perceived caregiving adequacy.

Attachment style, which refers to the trait aspect of attachment, was found to predict both dimensions of caregiver burden. It predicted caregiving difficulty, in that those who were classified as securely attached had lower levels of caregiving difficulty than those who were classified as insecurely attached. This is consistent with Hazan and Shaver's (1990) findings in younger adults and extends it to an older caregiving population. Hazan and Shaver found that those classified as securely attached had more confidence, valued relationships with others more, and feared failure less than those who were not. Extended to the current findings, this means that securely attached caregivers may better handle the behaviors of parents with dementia and may have a reserve that also protects them from other aspects of caregiving difficulty. Furthermore, they may have more secure attachments in other aspects of their life, such as to spouses and children, for example, that provide outside support.

Attachment style also predicted psychological symptomatology. Those classified as securely attached reported lower levels of psychological symptomatology than those classified as insecurely attached. This is consistent with Hazan and Shaver's (1990) findings that secure individuals had a brighter outlook and overall better mental well-being, and extends it to apply to a population of middle-aged adult child caregivers of institutionalized parents with dementia.

Attachment preoccupation predicted psychological symptomatology, with higher levels of attachment preoccupation being associated with higher levels of psychological symptomatology. This finding means that preoccupation with attachment issues reflects more global symptomatology, rather than a specific mood state that would be related to specific caregiving responsibilities.

It was interesting that attachment preoccupation did not predict caregiving difficulty. This may be evidence that thinking about the parent and worrying about what is happening to the parent is not related to the difficulties and irritations that may occur in day-to-day caregiving responsibilities.

Findings in the current study support the idea that a secure attachment style protects the individual from some of life's most difficult moments. Having to care for a parent with a fatal illness whose mental and eventually physical capacities inevitably deteriorate can be quite burdensome to the adult children. It is a valuable finding that those with secure attachment styles handle these difficulties with significantly lower levels of both specific mood states related to difficulty in caregiving and to global psychological symptoms. Secure attachment style therefore appears to protect the caregiver from some of the strains of caregiving. This gives further evidence to Hazan and Shaver's (1990) idea that attachment style is associated with positive well-being and better adjustment to facing life's difficulties. This is especially intriguing in that it may even help the caregiver to face the difficulty of losing the parent who is the primary attachment figure in the caregiver's life, and who was the original attachment figure in the child's infancy.

The current study also looked at attachment from the perspective of the impact of current environmental conditions. It was felt that an individual's preoccupation with missing a parent, thinking about a parent, and wondering what was happening to the parent would reflect the present-day aspect of attachment as a state variable rather than a trait variable. It was expected that adult children who were preoccupied with this aspect of the relationship, basically missing the parent, worrying about the relationship, having thoughts of the parent pop into their heads and so on, would be more likely to be experiencing stress related to the relationship. If an adult child spends a lot of time mulling over the relationship, it may be that the adult child has not resolved feelings related to the parent's disease. Clinicians sometimes view the distancing from a parent with dementia as being less stressful for the adult child in the face of inevitable deterioration and death (Ronch, 1989). High levels of preoccupation with the parent, conversely, would seem to indicate that distancing has not taken place and that the adult child may be under stress. The current study found this prediction to be true. Adult children who spent more time preoccupied with thoughts about their parents were more likely to be experiencing psychological symptoms than adult children who had a lower level of preoccupation with thoughts of the parent. However, the preoccupation with these thoughts appears to be independent of the more specific caregiving difficulty. This may be because caregiving difficulty refers to the more specific aspects of caregiving such as becoming upset at the parent's forgetfulness or inability to recognize a face. Preoccupation with attachment appears to operate at a more global level rather than any specific behavior emitted by the parent.

Caregiving responsibilities of this sample of middle-aged adults should be considered within the context of their own development, including typical
mid-life pursuits such as maintaining an infinite relationship, sexuality and adjustment to physical changes, parenting, career goals, leisure time pursuits, and aging parents (Crispi & Fisher, 1994). Most of the respondents are married, still working, and their children may still be living at home. It appears that many are professionals or dual-wage earners, as evidenced by the high education level reported. Developmental issues are especially important because caregiving tends to interrupt the normal flow of the lives of adult children because emotional and physical energy is expended on caregiving rather than on family (Miller et al., 1991). On a positive note, Fisher and Lerner (1994) have emphasized that there is room for plasticity in development, even in the face of serious interruption to the normative developmental path.

The respondents appear to be typical of the wider population from which they were drawn with respect to the fact that they generally visited their parent on a regular basis, consistent with findings in other studies (e.g., Shanas, 1979). They also appeared to have positive relationships with their parents, as evidenced by the fact that the vast majority of the respondents were classified as securely attached.

The investigations of various dimensions of attachment hold promise in the further understanding of caregiver burden in this population. Because individuals classified as securely attached tend to have more satisfactory, stable adult relationships (Shaver & Hazan, 1993), it is likely that they were less vulnerable to caregiving burden by virtue of other positive relationships within their lives. For them, the loss of the relationship with the parent may be offset by positive relationships with spouse and children, for example. It may also be that secure caregivers also receive more positive, effective support from their other relationships for the direct care of the parent.

The findings are of value especially because it is a new area of investigation. There are numerous studies of caregiver burden, including those investigating caregivers to parents with dementia in nursing homes. However, the investigation of attachment within this population is unique. It is a natural next step in investigating burden for this population, now that attachment in adulthood has been acknowledged and explored (Antonucci, 1993; Berman & Sperling, 1994), and associations have been made between attachment and caregiving in adulthood (Berman & Sperling, 1994; Cicirelli, 1991).

One of the things that may have contributed to the significant attachment-related findings of the current study was the attempt to reach not only caregivers who frequently visited the nursing homes, but others who visited much more infrequently. To assume that a nonvisiting adult child is not actually a caregiver and is emotionally or psychologically distant from the parent would have been an erroneous assumption. Numerous caregivers indicated on their questionnaires that they found it especially difficult to see the parent with dementia in a nursing home and would prefer to try to remember the parent as he or she had been in earlier years.

Caution should be taken in generalizing the findings due to the sample characteristics. The sample was predominantly Caucasian, Jewish, healthy, married, well-educated, and financially middle income or more affluent. It is possible that their burden was less than that which would be found in other areas with fewer support facilities for families, or where the caregivers had fewer family members, less education, and lower income levels.

Future research in the area of the contribution of attachment to caregiver burden might include the study of aging couples, one of whom has dementia. Using longitudinal research, the relationship between attachment and burden can be traced throughout the course of the disease. It would also be beneficial to survey all adult children within the caregiving family, in order to view the dementia caregiver within the dynamics of the family system. Finally, it would be valuable to investigate the relationship of attachment to specific psychological symptoms such as depression, anxiety, and hostility in this caregiving population. Overall, this study represents a first step toward understanding the relationship of attachment to caregiving in this population. Further research in this area, based on the results of this study, can assist professionals to more fully understand the dynamics of the interpersonal relationships between adult children and their elderly parents, especially in caregiving situations such as those that occur with dementia.

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