Change in Depressive Symptoms Among Daughter Caregivers: An 18-Month Longitudinal Study

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This longitudinal study investigates, over an 18-month period, the caregiving experience of a probability sample of 115 daughters who provided care to an aging parent. The levels of depressive symptoms manifested by these daughters were relatively low, with only 23.5% scoring in the clinical range during the study. Nevertheless, there was substantive change in depressive symptoms among the daughters during the 18 months. Daughters with higher levels of mastery were more likely to use problem-focused coping strategies, which led to reductions in depression, whereas daughters with lower levels of mastery were more likely to use emotion-focused coping, which led to increased levels of depression. Mastery was higher when the caregiving role was shared with a sibling; it was lower if the daughter had other caregiving responsibilities and if the parent care recipient had elevated levels of behavior problems.

This longitudinal study investigates the caregiving experience of daughters who provide care to an aging parent, over an 18-month period. George (1990) and Miller (1997) have questioned whether there is a need for additional research on family caregiving, given the burgeoning literature of the 1980s and 1990s. This literature has shown that the family caregiving role is increasingly common as the length of life increases (Brody, 1985), that family members who provide care for elderly relatives have an elevated risk for experiencing psychological distress (Cantor, 1983; Dura, Stukenberg, & Kiecolt-Glaser, 1990; Hoyert & Seltzer, 1992; Zarit, Reever, & Bach-Peterson, 1980), and that the caregiving role falls disproportionately on women (Stone, Cafferata, & Sangl, 1987). However, significant gaps remain in our understanding of the effects of caregiving, based both on methodological and substantive limitations, which prompted this investigation.

One of the limitations of past research on caregiving is that most studies have relied on convenience samples, which may not have been representative of the population of family caregivers. A second limitation is that most past research has been cross-sectional, so there is limited understanding of the extent to which caregivers change in well-being over time. Third, few studies have aimed to investigate the mechanisms by which the caregiving role has an effect on the well-being of the caregiver. In response to these limitations, our study was designed to describe the nature of the caregiving context as experienced by a probability sample of daughter caregivers, to examine how their level of psychological well-being changes over an 18-month period, and to elucidate the mechanisms by which this change occurs.

Adult Daughters as Caregivers for Their Aging Parents

Past research has shown that the kinship relationship between caregiver and care recipient affects the experience of family caregiving (George & Gwyther, 1986; Li, Seltzer, & Greenberg, 1997; Quayhagen & Quayhagen, 1988; Seltzer & Li, 1996). For this reason, it is valuable to disaggregate different groups of family caregivers. We have focused this investigation on daughter caregivers for three reasons. First, adult children who provide care for an elderly parent are the largest single group of family caregivers, representing 37% of all informal caregivers for the frail elderly (Stone et al., 1987). Overall, daughters outnumber sons in the caregiving role by a ratio of 3 to 1 (Stone & Kemper, 1989). Second, with the well-documented increase in the life span of older people, the probability that either one or both parents will require the help of adult children is greater than in the past and results in a longer period of time when care is required (Brody, 1985). Third, daughters who provide care to an elderly parent tend to be in midlife, a stage of life replete with other roles that may compete with the caregiving responsibility (Pavalko & Artis, 1997). However, this stage of life is also characterized by the availability of personal and social resources, which may enhance daughters’ ability to provide care to aging parents (Li et al., 1997). Hence, there is a need to elucidate the unique impacts of caregiving on daughters in midlife.

The Context of Caregiving

The context in which the caregiving role is enacted is defined by the nature of the needs and demands of the family member who receives the care, by the other roles and responsibilities that compete for the caregiver’s time and energy, and by the availability of support to assist the caregiver in negotiating this role.
A large number of studies have examined the nature of the demands experienced by family caregivers, including the physical requirements of providing care and the daily management of a relative who has functional, behavioral, and cognitive impairments (Aneshensel, Pearlin, Mullen, Zarit, & Whitlatch, 1995; Giguere & Gottlieb, 1996; Kinney & Stephens, 1989; Pruchno & Resch, 1989a; Stoller & Pugliesi, 1989). These studies have shown that greater caregiving demands are associated with elevated caregiver burden (see George, 1990). However, most of these studies were based on nonprobability samples that were recruited through service agencies or support groups (Aneshensel et al., 1995; Haley, Levine, Brown, Berry, & Hughes, 1987; Pruchno & Potashnik, 1989; Schulz, Williamson, Morycz, & Biegel, 1992). Such recruitment strategies tend to yield samples that overrepresent those with more serious health problems and functional limitations, as such individuals are most likely to be service recipients. In this article, we report findings based on a probability sample of daughter caregivers to depict a more representative picture of the caregiving demands they face.

Another aspect of the context of caregiving concerns the other social roles that are occupied by the caregiver. Daughters who provide care to their aging parent may also be employed, have children living at home, provide care for other relatives and close friends, or provide a combination of these roles. These are the “women in the middle” whose plight has been described by Brody (1981). However, some recent research shows that being caught in the middle is not as common an experience as initially believed (Rosenthal, Martin-Matthews, & Matthews, 1996; Uhlenberg, 1993). There are mixed reports in the literature regarding the effects of multiple roles, with some studies suggesting that competing demands lead to greater caregiver stress (Stone et al., 1987; Umberson, 1989), and other research indicating that multiple roles may be beneficial or complementary to the caregiving role (Hong & Seltzer, 1995; Scharlach, 1994; Stull, Bowman, & Smerglia, 1994).

A third aspect of the caregiving context is the type of social support available to the caregiver (George & Gwyther, 1986). Thoits (1986) conceptualized social support broadly to include all of those activities performed by others that help an individual manage a stressful encounter. With regard to caregiving, social support may be either expressed in the form of the direct provision of tangible caregiving assistance or through the expression of concern and compassion for the caregiver. Although one family member typically assumes primary responsibility for providing care to an elderly parent, in many families caregiving is shared, with other family members taking on a secondary caregiving role by providing periodic assistance to the care recipient or caregiver (Stone et al., 1987). However, more important than hands-on assistance with caregiving may be the emotional support that family and friends provide. This support may be expressed in a number of different ways, such as through the provision of information and advice, the expression of concern, or showing appreciation to the caregiver for performing the role. In general, caregivers who report feeling emotionally supported by others report lower levels of depressive symptoms than those without such support (Haley, Levine, Brown, & Bartolucci, 1987; Wilson, Moore, Rubin, & Bartels, 1990).

To add to this literature on the social circumstances of daughter caregivers, we describe more completely the caregiving context of daughters who provide care to their elderly parent. We examine the context of caregiving with respect to (a) the parent’s functional limitations, memory limitations, and behavior problems; (b) the other roles held by the daughter caregiver, such as paid employment, caring for children living at home, and having other caregiving responsibilities, which may compete for her time and energy; and (c) the social supports available to the daughter, both in the caregiving role and more generally.

Changes in Depressive Symptoms in Daughter Caregivers

A second purpose of our study is to describe the extent to which daughter caregivers change in their level of depressive symptoms during an 18-month period of time when they were providing care to their elderly parent. Two competing conceptual models have been advanced to account for the effects of caregiving: the wear-and-tear model of caregiving and the adaptational model (Townsend, Noekler, Deimling, & Bass, 1989). According to the wear and tear model, caregivers experience increasing stress over time and as a result become depleted physically, socially, and psychologically. In contrast, the adaptational model suggests that caregivers learn to adapt and accommodate to the role and hence do not experience negative effects on their well-being.

Most cross-sectional studies have reached the conclusion that the stresses of caregiving predominate and that such stresses take a toll on the well-being of the caregiver (Brody, 1985; Dura et al., 1990; Pruchno, Peters, & Buram, 1995). The picture of caregiving that emerges from these studies is one of unrelenting stress that places persons who provide care at increased risk for experiencing distress. However, few of the studies reaching this conclusion have tracked the effects of caregiving prospectively, so they cannot reveal the magnitude or the direction of changes in the well-being of caregivers as this role persists.

A different perspective on the effects of caregiving emerges from the few longitudinal studies that describe changes in the well-being of caregivers (Aneshensel et al., 1995; Schulz & Williamson, 1991; Schulz et al., 1992; Townsend et al., 1989; Zarit & Whitlatch, 1992). These studies have shown that there is great heterogeneity with respect to the extent of changes in caregiver well-being over time. For example, Townsend et al. (1989) found that 58% of adult children caregivers reported a decrease of at least one point in depressive symptomatology over a 14-month period, whereas 34% showed an increase of at least one point, and 8% showed no change during this period of time. Schulz et al. (1992) reported that 15% of caregivers decreased in depression and 12% increased, whereas the majority (74%) had little change in depression over an 18-month period, with change defined as a difference of one standard deviation or more. These two studies use different measures of change (1 point vs. 1 standard deviation) and hence offer contrasting views about the extent of stability versus change in the mental health of caregivers. However, taken together, they suggest the need to identify under what circumstances caregiving has a wear-and-tear effect and when is there manifestation of an adaptational effect, rather than attempting to determine which of these patterns of change predominates. Therefore, a second purpose of our study is to contribute to this emerging body of longitudinal research on caregiver mental health by describing the extent of change in depressive symptoms over an 18-month period in daughters who provide care to an elderly parent.
The Role of Mastery and Coping in Predicting Depression

What accounts for the heterogeneity of change in caregiver well-being? Why do some individuals who provide care become overwhelmed by this role and experience increasing levels of depressive symptoms, whereas others are able to maintain or show gains in their level of psychological well-being while they are occupying the caregiving role? Such questions lead to an investigation of the mechanisms that account for individual differences in response to the challenges of caregiving. Past research has shown that psychological and social resources can mitigate the effects of caregiving stress (Aneshensel et al., 1995; Haley, Levine, Brown, & Bartolucci, 1987; Li et al., 1997; Pruchno & Resch, 1989b).

Our conceptual model is shown in Figure 1. Mastery, which occupies a central position in this model, refers to "the extent to which people see themselves as being in control of the forces that importantly affect their lives" (Pearlin, Lieberman, Menaghan, & Mullan, 1981, p. 340). We focus on mastery because the caregiving context often consists of situations that are unpredictable and over which the caregiver has little control. For example, some care recipients have behavior problems that appear without warning, and many manifest functional or cognitive limitations that confront caregivers with the inescapable evidence that they have only very limited control over the circumstances of their caregiving challenge (Goode, Haley, Roth, & Ford, 1998; Skaff, Pearlin, & Mullan, 1996). In addition to these demands of providing care, other roles may compete for the daughter's time and energy, such as paid employment, having children living at home, and having caregiving responsibilities for other relatives, which may contribute to her perception that she has little control over her life (Brody, 1981, 1990; Coverman, 1989; McLanahan & Adams, 1987, 1989; Umberson, 1989). Thus, we hypothesize that mastery will be lower in daughter caregivers who face more caregiving demands (i.e., when the parent has high levels of behavior problems and extensive limitations in functional and memory abilities). Furthermore, we hypothesize that daughters who hold competing roles such as employee, parenting children living at home, or having other family caregiving responsibilities will have lower levels of mastery.

Supportive relationships, however, help individuals to sustain feelings of mastery and self-worth even in the context of caregiving stress (Antonucci & Jackson, 1987; Krause, 1987, 1990). Thoits (1995) posited that social support helps the individual manage a stressful situation and hence maintain a sense of mastery. On the basis of these conceptualizations, we hypothesize that social support will increase a daughter caregiver's sense of mastery even if she experiences a challenging caregiving context.

Mastery also has been shown to be affected by sociodemographic factors. Mastery is higher in persons who are married (Kessler & Essex, 1982; Pearlin et al., 1981; Pearlin & Schoolder, 1978), have more years of education (Ross & Mirowsky, 1989; Wolinsky & Stump, 1996), and have better health (Moss, 1988). Regarding the effect of age on mastery, most studies have found that older persons have lower levels of mastery (Aldwin, 1991; Rodin, 1986; Ross & Mirowsky, 1989; Wolinsky & Stump, 1996), whereas others have shown no relationship between age and mastery (Brandstater & Rothermund, 1994; Lachman, 1986).

![Figure 1. Conceptual model of change in depressive symptoms among daughter caregivers.](image-url)
Mastery, in turn, is hypothesized to affect the coping strategies used to mitigate the effects of stress. Past theory and research have indicated that individuals who appraise potentially stressful life events as controllable (i.e., who have a high sense of mastery) are inclined to use problem-focused coping (Folkman, 1984; Menaghan, 1983; Pearlin et al., 1981; Pearlin & Schooler, 1978), which generally is associated with lower levels of depressive symptoms (Seltzer, Greenberg, & Krauss, 1995). Our hypothesis, therefore, is that individuals high in mastery will be likely to cope through problem-focused strategies, which will be related to a reduction in depressive symptoms.

In contrast, persons with low levels of mastery are likely to define the caregiving context as outside of their control and therefore tend to use emotion-focused coping strategies to alleviate feelings of stress (Folkman, 1984). Although theoretical formulations suggest that emotion-focused coping strategies are effective coping choices when the situation is not perceived to be amenable to change or control (Lazarus, 1993), the empirical evidence from the caregiving literature suggests otherwise. In studies of caregivers for older persons, emotion-focused coping strategies have been found to be associated with higher levels of depression and distress (Haley, Levine, Brown, Berry, & Hughes, 1987; Kramer, 1993; Seltzer et al., 1995; Williamson & Schulz, 1993), although these studies did not assess the appraisal of mastery or control. In our study, we bring mastery into the analysis and hypothesize that lower levels of mastery will lead to higher use of emotion-focused coping, which in turn will lead to increases in depressive symptoms over time.

In our model, caregiving demands, other competing roles, and social support are also hypothesized to have direct effects on changes in levels of depressive symptoms over time. The demands of caregiving, much like the strains arising from chronic unemployment or marital problems, may be conceptualized as chronic family role strains. In a similar manner, other competing roles that pull caregivers in different directions may create additional strains for caregivers. Enduring role strains have been shown to increase the risk of psychological distress (Krause, 1987; Pearlin et al., 1981). There is reason to believe, therefore, that caregiving demands and other competing roles will result in increased levels of depressive symptoms over time. However, social support is expected to have the opposite effect because it can provide respite from the demands of caregiving and validate the importance of the caregiver's contribution (Li et al., 1997; Russell & Cutrona, 1991).

Stress process research has revealed a substantial array of background factors that are associated with depressive symptoms. Unmarried people are generally more depressed than their married counterparts (Mirowsky & Ross, 1989). Age has been found to be positively related to depression (Kessler, Foster, Webster, & House, 1992; Mirowsky & Ross, 1989), although the evidence is inconclusive (Newmann, 1989). Fewer years of education and poor physical health are risk factors for depression (Berkman et al., 1986; Hayes & Ross, 1986; Mirowsky & Ross, 1989; Pearlin et al., 1981). The gender of the parent has been shown to affect the level of stress in the parent–child relationship, with more conflict in mother–daughter dyads than other parent–child combinations (Seltzer & Ryff, 1996). Thus, providing care for a mother (vs. a father) may take a greater toll on the well-being of the daughter caregiver. Caregivers who reside with the care recipient have higher levels of stress symptoms and poorer mental health than non-co-resident caregivers (George & Gwyther, 1986; Noelker, 1990; O'Connor, Pollitt, Roth, Brook, & Reiss, 1990; Young & Kahana, 1989). Thus, in examining how the caregiving context, mastery, and coping contribute to changes in the level of depression of daughter caregivers, we control for the influence of the daughter's marital status, age, education, and health, the care recipient's gender, and co-residence of the caregiver and care recipient.

Research Questions and Hypotheses

In this study, we address three research questions. First, we ask, What is the caregiving context of daughters who provide care to their elderly parent? We define the caregiving context as including caregiving demands, other potentially competing roles, and social supports. Second, we ask, To what extent do daughter caregivers manifest changes in depressive symptoms over an 18-month period of time? We ask this question to describe the magnitude of changes in well-being among those who occupy the caregiving role. Third, we ask whether changes in depressive symptoms can be explained by the theoretical model as portrayed in Figure 1. Specifically, for our third research question, we test the following hypothesized paths:

1. Mastery will be lower in daughter caregivers whose parents have higher levels of caregiving demands. Moreover, daughter caregivers who hold competing roles will have lower levels of mastery.
2. Social support will be positively related to mastery among daughter caregivers.
3. Mastery will be higher in persons who are married, younger, better educated, and in better health.
4. Higher levels of mastery will be related to the greater use of problem-focused coping and less reliance on emotion-focused coping.
5. The use of emotion-focused coping strategies will lead to increasing levels of depressive symptoms, whereas the use of problem-focused coping strategies will have the opposite effect.
6. Greater caregiving demands, more competing roles, and lower levels of social support will be associated with increases in depressive symptoms.

Method

Sample

The data for this analysis are taken from the first two waves of a three-wave longitudinal study of women caregivers in Wisconsin. The sample is a subset of a larger probability sample drawn by random digit dialing techniques for the State of Wisconsin Bureau on Aging in 1991. The larger sample consisted of 2,250 persons age 60 years or older. In addition, 500 persons younger than age 60 who provided out-of-home care to a relative age 60 or older were included in the sampling frame for this study. To ensure a sufficiently large pool of caregivers for our study, we supplemented this base with an additional 1,000 households, also contacted through random digit dialing procedures.

We telephoned all of these persons in 1993 and screened them to determine their current caregiving status. If a wife or a daughter provided assistance to a husband or a parent, age 60 years or older, due to his or her aging, illness, or disability, with at least one of the following tasks, she was included in our study: housework, preparing meals, finances, yard work, shopping, taking medications, getting around inside the house, eating.
dressing, bathing, using the toilet, getting in and out of bed, and remembering things. This is the definition used in the 1984 National Long-Term Care Survey and the Long-Term Care Supplement of the 1987 National Medical Expenditure Survey (namely, one activity of daily living [ADL] or instrumental ADL [IADL] limitation; Miller et al., 1996). This broad definition of caregiving was used to identify family members in the beginning of the caregiving role as well as those who were further along in this process. This approach generated a group of care recipients who were extremely heterogeneous in their reason for needing care, including dementia, heart disease, stroke, arthritis, diabetes, and many nonspecific sources of dependency. Of the daughters who met study criteria, 79.3% agreed to participate.

Only daughters who were providing care to their parent in the community at both Wave 1 (which spanned the period October 1993–July 1994) and Wave 2 (May–December 1995) were included in this analysis. At Wave 1, 168 daughter caregivers whose parents were living in the community were interviewed. By Wave 2, 34 of these daughters were no longer eligible because their parent had died (n = 23) or had been placed in a nursing home (n = 11). Of the remaining 134 eligible daughters, 6 declined to be interviewed at Wave 2 and 13 had missing data. The final sample for this analysis, therefore, consisted of 115 daughter caregivers whose parents were living in the community at Waves 1 and 2 and who had no missing data.

We conducted a series of comparisons between the final sample and the full sample of daughter caregivers at Wave 1. The participants and the 19 who did not participate because of missing data or refusal were similar except that a significantly higher percentage of participants had education beyond high school. We also compared the sample used in our analysis with those daughters whose parent was placed in a nursing home or died between Waves 1 and 2. Compared with the parent care recipients who were placed in a nursing home, those included in this analysis had significantly fewer functional impairments and less severe behavior problems. In comparison with those daughters whose parents died before Wave 2, those included in our analysis were significantly younger, more likely to have other caregiving responsibilities, and the parents had fewer functional impairments.

As shown in Table 1, most of the daughter caregivers were married (86.1%). They averaged 56 years of age at Wave 1 (age range = 35–73) and approximately one half (48.6%) had some college education, but only 24.3% had graduated from college. The majority of daughters were employed, 31.3% working full-time and 26.0% employed part-time. Most daughters rated themselves in good or excellent health (77.4%). These daughters were caring for an elderly mother (84.3%) or father (15.7%) who averaged 82 years of age (range = 63–99). If a daughter had caregiving responsibility for both a mother and a father, the mother was designated as the reference parent. Most of the parent care recipients were widowed (79.1%). Only 10.4% co-resided with their daughter caregiver and only 5.1% were persons of color.

At the time the study began, the parent had been receiving care for an average of 8.5 years, with a range between less than 1 and 36 years. On average, daughters provided their parent with assistance with 3.0 ADL or IADL tasks. About three fourths (71.3%) of the respondents considered themselves to be the primary caregiver for the parent or shared equally with another family member in the primary caregiving role, whereas the remaining daughters were secondary caregivers.

### Data Collection and Measures

We collected data by interviewing the daughter caregivers, primarily in their homes. Caregivers also completed a set of self-administered measures. Table 2 presents the means, standard deviations, and correlations of the variables used in this study.

The context of caregiving was assessed by measures of caregiving demands, the other potentially competing roles occupied by the daughter caregivers, and the availability of social support to the daughter caregiver. Caregiving demands included measures of the extent of behavior problems, memory limitations, and functional limitations of the parent. The extent of behavior problems was measured by Pearlin, Mulan, Semple, and Skaff's (1990) Problematic Behaviors Scale, which has been widely used in studies of caregiving. Respondents were asked to indicate how often the care recipient manifested each of 14 behavior problems, using a 3-point response scale ranging from 0 (never) to 2 (usually). Examples of items are “swearing or using foul language” and “repeating questions.” In our study, the alpha reliability of the scale was .79. The extent of memory limitations was measured by the Cognitive Status Scale (Pearlin et al., 1990). This is an 8-item scale asking caregivers to indicate how much difficulty (0 = not at all difficult, 1 = can’t do at all) the care recipient has with 8 different memory tasks. Sample items include “difficulty remembering recent events” and “difficulty remembering words.” In this study, the alpha reliability of the scale was .79. Level of functional limitations was assessed with respect to 14 personal and instrumental activities of daily living (e.g., walking, dressing, or preparing meals), based on a modified version of the OARS measures (Multidimensional Functional Assessment, Center for the Study of Aging and Human Development, 1978). Caregivers were asked to indicate how much assistance the care recipient required with each daily living task, using a 3-point scale (0 = independent, 1 = sometimes dependent, 2 = totally dependent on others). The alpha reliability of the level of functional limitations was .76.

Three other potentially competing roles of the daughter caregivers were included in this analysis: having caregiving responsibility for another relative or close friend, being employed in a paid job, and caring for children living at home. Having other caregiving responsibilities was assessed by using a single item in which the daughter indicated if she was providing care to anyone other than the parent care recipient because of that individual’s aging, illness, or disability. Note that other caregiving responsibilities did not include care for children unless they had a disability. If there was no other person to whom the daughter was providing care, the item was coded 0. If she was helping one other person in addition to her parent, other caregiving responsibilities was coded 1. If she named two or more persons to whom she was providing care, the response was coded 2. Employment status was coded as a dichotomous variable. Those who were employed full or part-time were coded 1, and those who were not currently employed were coded 0. Caring for children at home was measured by the number of children ages 18 or younger who co-resided with the daughter caregiver.

### Table 1

**Sample Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M or %</th>
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<tr>
<td><strong>Daughter caregivers</strong></td>
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<tr>
<td>Marital status (married)</td>
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<tr>
<td>Age (years)</td>
<td>56.0</td>
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<tr>
<td>Education</td>
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<td>College degree or more</td>
<td>24.3%</td>
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<tr>
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<tr>
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<td>Age (years)</td>
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<td>Marital status (widowed)</td>
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<td>Race (White)</td>
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<tr>
<td>Co-residence with daughter caregiver</td>
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</table>

*Note. N = 115.*
Table 2
Measures, Standard Deviations, and Pearson Product-Moment Correlations of Study Variables

| Variable                        | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | M (SD) |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1. Marital status               |     | .86 |    | .49 |    | 55.95 |    |    |    | .02 |    | .17 |    | .61 |    |    |    |    |    | .61 (.75) |
| 2. Education                   | -.31|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .49 (.50) |
| 3. Age                         | .17 |    | -.25|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .55 (9.51) |
| 4. Health status               | -.02| -.16| -.01|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | .30 (3.75) |
| 5. Gender                      | .17 |    | -.18| -.01| .11|    |    |    |    |    |    |    |    |    |    |    |    |    |    | .17 (.36) |
| 6. Co-residence                | .06 | -.05|    | .22| -.02| -.15|    |    |    |    |    |    |    |    |    |    |    |    |    | .10 (3.31) |
| 7. Behavior problems           | -.01| .06 | .01 | -.28| .12 | -.08|    |    |    |    |    |    |    |    |    |    |    |    |    | 6.32 (3.96) |
| 8. Functional limitations      | -.05| -.05| .25 | -.15| .11 | .38 | .22 |    |    |    |    |    |    |    |    |    |    |    |    | 5.28 (3.58) |
| 9. Memory limitations          | .14 | .04 | .09 | -.21| .09 | .09 | .60 | .30|    |    |    |    |    |    |    |    |    |    |    | 3.52 (3.95) |
| 10. Other caregiving           |     | -.04| -.03| -.21| -.07| -.10| -.01| .06| .10 | -.04|    |    |    |    |    |    |    |    |    | .61 (.75) |
| responsibilities               |     | .14 | .11 | -.53| .02 | -.14| .11 | -.10| .07 | .00 |    |    |    |    |    |    |    |    |    | .34 (.80) |
| 11. Children at home           |     | -.19| .24 | -.42| .16 | -.02| -.22| -.09| -.20| -.18| .02 | .17 |    |    |    |    |    |    |    | .57 (.50) |
| 12. Employment status          |     | -.14| .22 | -.00| .21 | -.06| -.12| .00 | -.06| -.10| .02 | -.03| .08 | .07 |    |    |    |    |    | 22.14 (9.18) |
| 13. Caregiving support         |     | -.04| .00 | .30 | .25 | -.06| -.01| .31 | -.09| -.17| -.20| -.17| .03 | .11 | .14 |    |    |    |    | 23.21 (4.31) |
| from siblings                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .68 (4.77) |
| 14. Emotional support          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    | 15.10 (9.18) |
| 15. Mastery                    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    | 22.22 (4.31) |
| 16. Emotion-focused            |     | -.02| -.20| .01 | -.14 | -.05| .03 | .29 | .07 | .08 | .14 | -.08| -.16| .06 | -.03| -.35|    |    |    | 29.64 (5.97) |
| coping                         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 17. Problem-focused            |     | -.07| .22 | .08 | .06 | .12 | .03 | -.01| -.02| -.09| -.08| -.08| .12 | .05 | .20 | .32 | .04 |    |    | 48.21 (7.67) |
| coping                         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 18. Wave 1 depression          |     | -.05| .05 | -.28| -.30| .13 | -.05| .46 | .04 | .16 | .14 | .08 | -.08| -.12| -.11| -.64| .41 | -.13|    | 9.30 (9.19) |
| (Wave 2 - Wave 1)              |     | -.13| -.05| .24 | .16 | -.18| -.02| -.37| -.05| -.17| -.15| -.08| -.01| -.15| .08 | .30 | -.12| -.07| -.60|    | .98 (8.02) |

Note. Coefficients equal to or larger than ± .18 are significant at the .05 level.
Two dimensions of social support were examined. First, caregiving support from siblings was defined as assistance given to the parent care recipient with at least one personal or instrumental ADL by the siblings of the daughter caregiver or by the spouses of the siblings. If such support was provided, the variable was coded 1, and otherwise 0. The second dimension of social support was emotional support. Using Antonucci and Akiyama’s (1987) measure of social networks, respondents indicated for each of 10 network members whether the following types of emotional support were received: someone to confide in, someone to provide reassurance, someone to talk to when upset or depressed, and someone who shows respect. Each type of support provided by each network member was coded 1. The sum across network members of all four types of support (possible range = 0–40) was used as our measure of emotional support.

Ryff’s (1989) Environmental Mastery Scale was used to measure the daughter caregiver’s experience of global feelings of mastery. The scale consists of five items, each of which is rated along a 6-point scale (1 = strongly disagree, 6 = strongly agree). Sample items include the following: “In general, I feel I am in charge of the situation in which I live,” and “I am quite good at managing the many responsibilities of my daily life.” The alpha reliability of the mastery scale was 0.67.

Coping was measured by Carver, Scheier, and Weintraub’s (1989) multidimensional coping inventory. The measure consists of 13 subscales, of which 8 were used for our analysis, 4 summed to measure problem-focused coping (active coping, planning, positive reinterpretation, and suppression of competing activities) and 4 summed to measure emotion-focused coping (denial, mental disengagement, behavioral disengagement, and focusing on and venting of emotions). The alpha reliabilities of the problem-focused coping scale and the emotion-focused coping scale were 0.88 and 0.78, respectively.

Six background characteristics of the daughter caregivers were used as control variables: marital status (1 = married, 0 = unmarried), education (1 = some college or more, 0 = high school graduate or below), age (in years), self-rated health (1 = poor, 4 = excellent), gender of the care recipient (1 = male, 0 = female), and co-residence between the caregiving daughter and the parent care recipient (1 = co-residence, 0 = otherwise). Income was not included as a background variable in the model because of missing data. Rather, level of education was our measure of socioeconomic status.

Depressive symptomatology was measured by the Center for Epidemiology Scale for Depression (CES-D; Radloff, 1977). The scale assesses how often in the previous week the respondent had experienced 20 symptoms of depression. The alpha reliability of the CES-D was 0.90 at Wave 1 and 0.88 at Wave 2. A score of 16 or greater is ordinarily interpreted as indicative of clinical depression (Radloff, 1977).

**Data Analysis**

To investigate the first research question, which addressed the context of caregiving as experienced by the daughter caregivers, we computed descriptive statistics regarding the demands of caregiving (i.e., the parent’s level of behavior problems, memory limitations, and functional limitations), the other competing roles held by the daughters (i.e., other caregiving responsibilities, employment, and caring for children at home), and the availability of social support (i.e., caregiving support from siblings and emotional support).

The second research question concerned the pattern of change from Wave 1 to Wave 2 in depressive symptoms among the daughter caregivers. Three different approaches were used to assess the extent of change. The first approach, which tracked group-level change, involved computing the mean level change from Wave 1 to Wave 2 through a paired t test. In the second approach, change was defined as more than half of a standard deviation increase or decrease in a daughter caregiver’s CES-D score from Wave 1 to Wave 2, which was a modification of the strategy used by Schulz et al. (1992) for assessing change in caregiver well-being. For our sample, the standard deviation of the Wave 1 to Wave 2 score in depressive symptoms was 8.02, so half of a standard deviation was defined as 4 points. We defined a meaningful change as more than half of a standard deviation because it corresponds to Cohen’s (1988) definition of a “medium effect.”

Third, we classified a daughter caregiver as having changed in depressive symptoms if she was depressed at Wave 1 (using a CES-D score of 16 or more as the cut-off for depression) but was not depressed at Wave 2 (CES-D score of 15 or less) or the reverse.

To address our third research question, which sought to elucidate the factors that contribute to change in the level of depressive symptoms from Wave 1 to Wave 2, we tested the model in Figure 1 by using LISREL 8 (Joreskog & Sorbom, 1993a). We modeled our analysis after the strategy used by Albert et al. (1995), who used Time 1 to Time 2 change as the dependent variable and included the Time 1 level of this variable in the model. In our analysis, there were five endogenous variables: change in depressive symptoms from Wave 1 to Wave 2 (the dependent variable), and Wave 1 measures of mastery, emotion-focused coping, problem-focused coping, and initial levels of depressive symptoms.

There were four domains of exogenous variables, all measured at Wave 1. The first domain, background characteristics, was measured by the daughter’s marital status, education, age, and health status, the parent’s gender, and whether the daughter caregiver and parent care recipient co-resided. Three domains defined the caregiving context: caregiving demands, other competing roles held by the daughter caregiver, and social support. Caregiving demands included the behavior problems, functional limitations, and memory limitations of the parent care recipient. Competing roles held by the daughter caregiver included other caregiving responsibilities, employment, and co-residence with children. The domain of social support was measured by caregiving support from siblings and emotional support from family and friends.

We note that all of the independent variables were measured at Wave 1 even though we had access to both Wave 1 and Wave 2 measures of these variables. Our model focuses on how Wave 1 independent variables predict Wave 1 to Wave 2 change in depressive symptoms. We decided not to focus on change in the independent variables for two reasons. First, sample size limitations imposed restrictions on the number of independent variables that could be included in the model. Including change variables would have substantially increased the number of independent variables in the model. Second, and more important, by including only the Wave 1 measure of the independent variables, we were in a better position to sort out the direction of effects between the independent variables and the dependent variable (change in depressive symptoms).

Several of the variables in the model (education, health status, other caregiving responsibilities, and caregiving support from siblings) were measured as ordinal variables but conceptualized as representing underlying continuous variables. For these variables, therefore, we used PRELIS 2.1 (Joreskog & Sorbom, 1993b) to compute polychoric and polynomial correlations, which allowed us to treat these variables as representing underlying continuous variables. Pearson correlations were computed among pairs of variables that we had measured as continuous variables. The resultant correlation matrix (available from the authors) was then used to test the model.

**Results**

**The Context of Caregiving**

Our first research question was “What is the context of caregiving for daughter caregivers?” The context of caregiving was conceptualized as including the limitations of the care recipient, the other potentially competing roles held by the daughter caregiver, and the social supports available to the caregiver.

First, in our investigation of the limitations of the care recipient, we report data from the Aneshensel et al. (1995) study to provide a standard against which to compare our sample. This comparison
is possible because both studies used the same measures of the limitations of the care recipient. In our sample, all but two of the parents (98.3%) had at least one functional limitation. In the Aneshensel et al. (1995) sample, a similar percentage (93.7%) had at least one functional limitation. In our sample, the most frequent functional limitations were the following: difficulty getting to places in the community (reported to be difficult or not possible for 80.0% of the parent care recipients), managing finances (difficult or not possible for 66.0% of the parents), doing housework (difficult or not possible for 64.3%), and doing grocery shopping (difficult or not possible for 58.3%). The parent care recipients were much more independent in personal care skills, including eating (100% independent), dressing and undressing (92.2% independent), grooming (88.7% independent), using the bathroom (88.7% independent), and bathing or showering (73.0% independent).

About three fourths of the parents in our sample of care recipients (71.3%) had at least one memory limitation. As expected, this is a lower percentage than in Aneshensel et al. (1995) sample, in which all care recipients had Alzheimer’s disease and, by definition, had memory limitations. The average number of memory limitations in our sample was 2.02 as compared with 5.81 in the Aneshensel et al. (1995) sample on the same measure. In our sample, the most frequent memory limitations were difficulty remembering recent events (with some difficulty experienced by 60.9% of the parent care recipients) and difficulty understanding simple instructions (with some difficulty experienced by 43.5%).

Virtually the entire sample in our study (98.3%) manifested some degree of behavior problems. The average number of behavior problems in this sample was 5.2 (out of 14) as compared with 6.1 in the Aneshensel et al. (1995) sample on the same measure. In our sample, the most frequent behavior problems were repeating questions (reported for 88.6% of the parents), depression (69.6%), irritability or anger (63.5%), and restlessness or agitation (57.4%).

Thus, our sample was similar in impairment to the Aneshensel et al. (1995) sample in functional limitations and behavior problems but considerably less impaired in memory. This difference is consistent with the smaller percentage (18.3%) of our sample who had dementia or other cognitive impairments, in comparison to all of the Aneshensel et al. sample. This sample of elderly care recipients also exhibited a similar pattern as the Aneshensel et al. sample of declining cognitive functioning as well as increasing levels of behavior problems and functional impairments over the 18-month study period.

The second aspect of the caregiving context in our conceptualization concerns the other roles held by the daughters. About four fifths (78.3%) of the daughters held at least one other role. About half (57.4%) were employed outside of the home. Only one fifth (19.2%) had children living at home. Nearly half (45.2%) were providing care to another family member or close friend in addition to caring for the parent. Of those providing help, 48.1% were caring for another parent or parent-in-law, 32.7% were caring for a husband or another relative, and 19.2% were providing care to a friend.

Fully 40% of the daughters had just one of the additional roles (16.5% only had other caregiving responsibilities, 1.8% only had children living at home, and 21.7% only were employed in a paid position). Another third (33.1%) of the daughters had two additional roles (2.6% had other caregiving responsibilities and children living at home, 20.9% had other caregiving responsibilities and paid employment, and 9.6% had a child living at home and paid employment). Just 5.2% of the daughters had all three roles in addition to caring for their aging parent.

The third component of the caregiving context is the extent of social support received by the daughter caregiver. All daughter caregivers in our sample received some level of emotional support from their personal network. Daughters could receive up to four types of emotional support from each network member: someone in whom the daughter can confide, a source of reassurance to the daughter, a source of respect to the daughter, and someone for the daughter to talk with when upset. The average network member provided 2.6 of these 4 types of emotional support to the daughter caregiver. Nearly two thirds (64.6%) of the network members were seen by the daughter caregiver as people in whom she could confide. About the same percentage (62.3%) were seen as a source of reassurance. Fully 82.8% of network members were seen as a source of respect, but only about half (50.5%) were people the daughter caregiver felt she could talk to when upset.

A different type of social support was whether siblings of the daughter caregivers (or the spouses of siblings) also provided care to the parent care recipient. About two thirds (67.8%) of the daughters received this type of support, with siblings providing assistance to the parent care recipient with an average of 1.3 caregiving tasks. Because the daughter caregivers provided assistance with three tasks, the siblings were generally the secondary caregivers for their parents.

To summarize, there was great variability in the extent to which the parent care recipients manifested limitations, although most had functional, memory, and behavioral limitations. In addition, the majority of the daughters had other role responsibilities competing for their time in addition to caring for the elderly parent, primarily paid employment and other caregiving responsibilities. All daughters received some degree of emotional support, and most had caregiving support from siblings.

Pattern of Change in Depressive Symptoms

Our second research question was “What is the pattern of change in depressive symptoms among daughter caregivers during the 18 months between Wave 1 and Wave 2?” We used three approaches to describe the extent of change, based on the methods used in past research.

First we examined the mean level of change. Comparison of the means at Wave 1 and Wave 2 showed a 1-point decrease in depressive symptoms over the 18-month period (from 9.30 to 8.32), not a significant difference. However, this mean-level stability masks a great deal of individual-level change.

To expose individual-level change, we used a modification of the approach taken in the Schulz et al. (1992) longitudinal study. Table 3 shows the magnitude of the change in depressive symptoms experienced by the sample members, in intervals defined by half standard deviation units (approximately 4 points). Whereas 65.2% remained stable in their scores during the study period (i.e., their Wave 2 score was within half a standard deviation above or below their Wave 1 score), the remaining 34.8% increased or decreased by more than one half a standard deviation.
Table 3
Changes in Depressive Symptoms Among Daughter Caregivers

<table>
<thead>
<tr>
<th>CES-D difference (Wave 2 - Wave 1)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>−9 or more</td>
<td>12</td>
<td>10.5</td>
</tr>
<tr>
<td>−5 to −8</td>
<td>12</td>
<td>10.5</td>
</tr>
<tr>
<td>−1 to −4</td>
<td>30</td>
<td>26.1</td>
</tr>
<tr>
<td>0</td>
<td>15</td>
<td>13.0</td>
</tr>
<tr>
<td>+1 to +4</td>
<td>30</td>
<td>26.1</td>
</tr>
<tr>
<td>+5 to +8</td>
<td>10</td>
<td>8.7</td>
</tr>
<tr>
<td>+9 or more</td>
<td>6</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Note. Changes measured in intervals defined by ½ SD.

Just over one tenth (10.5%) decreased in their CES-D score by between half and one standard deviation, and 8.7% increased their score by this amount between Wave 1 and Wave 2. Another 10.5% decreased by more than a standard deviation, whereas 5.2% increased by this amount during the 18-month study period.

Finally, we used a clinical approach to examine change in depressive symptoms and defined change as being depressed at Wave 1 (a CES-D score of 16 or more) and nondepressed at Wave 2, or the reverse. We found that only 11 (9.6%) daughter caregivers who were depressed at Wave 1 were nondepressed by Wave 2, and 6 (5.2%) daughter caregivers who were not depressed at Wave 1 became depressed by Wave 2. Fully 88 (76.5%) remained nondepressed, and only 10 (8.7%) remained depressed at both Waves 1 and 2.

To summarize, the level of depressive symptoms in daughter caregivers can be characterized as relatively low, in that over three fourths of these individuals scored below the clinical cut-off of 16 on the CES-D throughout the study. Although low in level, there was evidence of change in depressive symptoms (i.e., an increase or decrease of more than half a standard deviation) manifested by about one third of these individuals during the 18-month interval between Waves 1 and 2. Our third research question was posed to investigate the factors that accounted for this change.

Path Analysis of Daughter Caregivers’ Well-Being

To address our third research question, we used LISREL 8 to estimate the hypothesized path model in Figure 1. Our first step was to conduct preliminary analyses to reduce the number of variables in the model, which was necessary because of the sample size. In these preliminary analyses, seven of the exogenous variables (i.e., gender of the parent care recipient, co-residence, memory limitations, functional limitations, employment, caring for children at home, and emotional support) were found to have no significant effect on any of the endogenous variables. To develop a more parsimonious model, we dropped these exogenous variables and re-estimated the reduced model. In the reduced model, the domain of caregiving demands was operationalized by behavior problems, the domain of competing roles of the caregiver was indicated by other caregiving responsibilities, and the domain of social support was represented by caregiving support from siblings.

The reduced model yielded a modest fit to the data: χ²(15, N = 115) = 40.67, p < .001; goodness-of-fit index (GFI) = .95; normed fit index (NFI) = .89; standardized root mean square residual (SRMR) = .06. An examination of modification indices indicated that the addition of two theoretically reasonable paths (i.e., the path from education to emotion-focused coping and the path from education to problem-focused coping) would significantly improve the fit of the model. These paths, therefore, were freed and the model was re-estimated, χ²(13, N = 115) = 17.40, p = .18; GFI = .98; NFI = .95; SRMR = .04. The addition of these two paths significantly improved the fit of the model, change

Table 4
Maximum-Likelihood Estimates for the Final Model of Change in Depression Among Daughter Caregivers

<table>
<thead>
<tr>
<th>Direct effects on:</th>
<th>Mastery</th>
<th>Emotion-focused coping</th>
<th>Problem-focused coping</th>
<th>Wave 1 depression</th>
<th>Change in depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>−.05 (.09)</td>
<td>—</td>
<td>—</td>
<td>−.04 (.07)</td>
<td>−.17** (.07)</td>
</tr>
<tr>
<td>Education</td>
<td>.20* (.10)</td>
<td>−.25** (.09)</td>
<td>.28** (.09)</td>
<td>−.04 (.09)</td>
<td>−.05 (.09)</td>
</tr>
<tr>
<td>Age</td>
<td>.28** (.09)</td>
<td>—</td>
<td>—</td>
<td>−.10 (.08)</td>
<td>.12 (.08)</td>
</tr>
<tr>
<td>Health status</td>
<td>.20* (.09)</td>
<td>—</td>
<td>—</td>
<td>−.10 (.07)</td>
<td>−.06 (.07)</td>
</tr>
<tr>
<td>Behavior problems</td>
<td>−.31*** (.09)</td>
<td>—</td>
<td>—</td>
<td>.27*** (.07)</td>
<td>−.10 (.08)</td>
</tr>
<tr>
<td>Other caregiving responsibilities</td>
<td>−.21* (.09)</td>
<td>—</td>
<td>—</td>
<td>.05 (.07)</td>
<td>.00 (.07)</td>
</tr>
<tr>
<td>Caregiving support from siblings</td>
<td>.24** (.09)</td>
<td>—</td>
<td>—</td>
<td>−.12 (.07)</td>
<td>−.29*** (.08)</td>
</tr>
<tr>
<td>Mastery</td>
<td>—</td>
<td>−.34*** (.09)</td>
<td>.32*** (.09)</td>
<td>−.42*** (.09)</td>
<td>−.20* (.07)</td>
</tr>
<tr>
<td>Emotion-focused coping</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.17* (.07)</td>
<td>.20* (.07)</td>
</tr>
<tr>
<td>Problem-focused coping</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>.02 (.07)</td>
<td>−.16* (.07)</td>
</tr>
<tr>
<td>Wave 1 depression</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>−.70*** (.09)</td>
</tr>
<tr>
<td>R square</td>
<td>.32</td>
<td>.18</td>
<td>.18</td>
<td>.54</td>
<td>.54</td>
</tr>
</tbody>
</table>

Note. Values are standardized coefficients, with standard errors in parentheses. Dashes indicate no hypothesized relationship. χ²(13, N = 115) = 17.40, p = .18; goodness-of-fit index = .98; normed fit index = .95; standardized root mean square residual = .04. *p < .05. **p < .01. ***p < .001.
in $\chi^2(2, N = 15) = 23.27, p < .001$. Table 4 reports the maximum-likelihood estimates for the hypothesized relationships among the exogenous and endogenous variables in the final model.

Our first three hypotheses examined the extent to which caregiving demands, competing role responsibilities, social support, and background characteristics influence a caregiver's sense of mastery. We hypothesized that higher levels of caregiving demands and competing role responsibilities would lead to a lower level of mastery in the daughter caregivers but that social support would have a countervailing effect. We also hypothesized that those who were married, in better health, younger, and with more education would experience higher levels of mastery.

Figure 2 portrays the final model. In support of our hypotheses, we found that daughter caregivers had lower levels of mastery when they had additional caregiving responsibilities and when the parent to whom they provided care had higher levels of behavior problems. Caregiving support from siblings had a positive effect on mastery. When the caregiving role was shared with a sibling, daughter caregivers reported higher levels of mastery than those without such support. We also found that mastery was higher among those daughter caregivers who were better educated and in better health. Contrary to our expectations, marital status was unrelated and age was positively related to mastery.

Our fourth hypothesis addressed the relationship between mastery and coping. In support of our hypothesis, daughter caregivers who had higher levels of mastery were more likely to use problem-focused coping strategies, whereas those feeling little mastery over their environment were more likely to use emotion-focused coping strategies. Lower levels of mastery also were related to higher levels of depressive symptoms at Wave 1.

Our fifth hypothesis specified the relationship between previous levels of coping strategies and change in depression, net of initial levels of depressive symptoms. Greater use of emotion-focused coping strategies at Wave 1 was expected to lead to increasing levels of depression over time, whereas greater use of problem-focused coping strategies at Wave 1 was expected to have the opposite effect. We found that daughter caregivers who had higher scores on emotion-focused coping at Wave 1 reported higher levels of initial depression and increasing levels of depressive symptoms between Wave 1 and Wave 2. Conversely, daughter caregivers who used more problem-focused coping at Wave 1 had decreasing levels of depressive symptoms during the study period.

Our final hypothesis examined the direct effects of previous levels of caregiving demands, competing roles, and social support on change in depression over time. We hypothesized that increases in depression would be predicted by greater caregiving demands and having other competing roles, and by lower levels of social support. Although we found that daughter caregivers were more depressed at Wave 1 if the care recipient had more behavior problems, behavior problems did not have a direct effect on change in depression between Wave 1 and Wave 2. In contrast, having other caregiving responsibilities was not found to be related to either initial levels of depression or change in depressive symptoms. Finally, caregiving support from siblings was related to change in depression but not to initial levels of depression. Those daughter caregivers who had caregiving support from siblings at Wave 1 reported decreasing depression at Wave 2.

In regard to control variables, only marital status was related to change in depression over time. Daughter caregivers who were married experienced decreasing levels of depressive symptoms.

**Figure 2.** Final model of change in depressive symptoms among daughter caregivers. The values on the paths are standardized path coefficients. Only paths that have t-values ≥ 2 are shown.
during the study period, compared with those who were not married. The daughter’s education, age, and health status had not direct effect on Wave 1 level of depression or change in depression over time. Moreover, as expected, initial level of depression had a strong effect in predicting change in depressive symptoms.

Discussion

Previous conceptualizations of the impacts of caregiving have focused on the wear-and-tear effects of this role. The evidence from the present study and data from other longitudinal investigations (Townsend et al., 1989) confirm that wear-and-tear effects are not the inevitable result of providing care to an elderly parent. However, it is also not the case that all who occupy this role adapt effectively. Rather, our data reveal a great deal of heterogeneity in the well-being of daughter caregivers as well as the extent to which their well-being changes during the time they are in this role. Most daughter caregivers maintain their psychological well-being even though they are faced with the challenge of providing care to a parent with functional, behavioral, and memory limitations. Nevertheless, nearly one quarter of our sample of daughter caregivers were in the clinical range of depression (a score of 16 or greater) at some point during the study period.

Whereas most studies of the impact of caregiving have used volunteer samples recruited through support groups, respite care programs, hospitals, and clinics, the sample in this study was a probability sample of daughter caregivers. The level of depressive symptoms of the daughter caregivers in our sample (mean = 9.30 at Time 1) was considerably lower than reported in studies using specially selected samples of caregivers, which tend to average between 14 and 18 on the CES-D (Goode et al., 1998; Haley et al., 1995; Luftky & Knight, 1994; Pruchno & Resch, 1989b; Schulz, Tompkins, & Rau, 1988; Schulz & Williamson, 1991). It is possible that the lower level of depression in our sample was the result of the small percentage (18.3%) who provided care to a parent with dementia, which has been shown to be a risk factor for depression in previous studies of caregivers (Aneshensel et al., 1995). Indeed, the well-being of the adult daughter caregivers in this study more closely resembles community samples of noncaregiving women. For example, in a population screening of 1,005 community-residing adults ages 50–96 years (Lewinsohn, Seeley, Roberts, & Allen, 1997), the mean CES-D score for women was 8.67. Comparison of the women in our study with these other samples of caregivers and noncaregivers suggests that when the population of caregivers is conceptualized broadly rather than in a disease-specific context, caregiving may be associated with substantially less depression than past research has indicated. Thus, our study may more accurately portray the risk of depression in daughters who are caring for a parent living in the community, although caution should be exercised in generalizing our findings to disease-specific caregiving contexts.

Turning to the longitudinal analysis, our findings showed that daughter caregivers’ success in adapting to the caregiving challenge is conditioned by their social circumstances and psychological resources. Advantageous social circumstances include being married and sharing caregiving responsibility with a sibling. Advantageous psychological resources include having higher levels of mastery, using problem-focused coping strategies, and refraining from using emotion-focused coping. Under such conditions, daughters who provide care to their elderly parents show reductions in their levels of depressive symptoms over time, even though their caregiving challenge continues.

However, there were two aspects of the caregiving context that were particularly problematic for daughters in this role: a greater number of behavior problems manifested by the parent to whom care was provided, and having the responsibility of caring for another family member or friend in addition to providing care to the parent. Both of these aspects of the caregiving context were associated with a lower level of mastery in the daughter caregiver. Although virtually all parents manifested some behaviors that the daughter perceived to be problematic, the daughter had a lower sense of mastery when the parent had a greater number of such behavior problems. Having other caregiving responsibilities was a surprisingly common phenomenon in this sample, with nearly half of the daughters caring for another family member or friend. This pile-up of caregiving responsibilities also was associated with a lower level of mastery, which was associated with a greater use of emotion-focused coping by the daughter caregiver and a higher level of depression.

In contrast, our findings suggest that daughter caregivers have a stronger sense of mastery if they share the caregiving role with a sibling or the spouse of a sibling. Although past research has suggested that one adult child per family often emerges as the primary caregiver for an aging parent (Horowitz, 1985; Snyder & Keefe, 1985), our data show that it is common for care to be shared, even if the division of labor is not equal. Fully 67.8% of the daughters reported that a sibling or the spouse of a sibling provided at least some assistance to the parent. This pattern is consistent with the findings of research conducted by Stone et al. (1987), who found that 67% of the daughter caregivers in their national probability sample shared the caregiving role, and also similar to the findings of Matthews and Rosner (1988), who found that shared sibling responsibility for parent care was the norm. When caregiving is shared, the daughter’s sense of mastery is higher and the stressful aspects of the caregiving context do not take a toll on her psychological well-being. These findings can be interpreted in the context of normative expectations of equity in the sibling relationship (Avioli, 1989). Daughter caregivers whose siblings do not contribute even a small amount to the caregiving effort may feel exploited or resentful of the lack of involvement of those who should share in the responsibility for the care of the aging parent. More generally, Cicirelli (1989) found that a close sibling bond was predictive of less depression in older persons. In contrast, distance or conflict in the sibling relationship, which may be characteristic of the relationships of siblings who do not provide any care to an aging parent, predicted higher levels of depression in the Cicirelli study. The prevalence and effects of caregiving support from siblings warrant additional attention in future research, especially in light of the limited measure used in our study.

In addition to contributing to an understanding of how the caregiving context and the availability of caregiving support from siblings affect a daughter caregiver’s sense of mastery, this study offers insights about the influence of mastery and coping on change in depressive symptoms. Daughters who felt more control over their lives (i.e., who were high in mastery) tended to use problem-focused coping strategies, which are “activist” attempts to solve problems (Thoits, 1994), and which led to decreases in depressive symptoms during the study period. Those who had
lower levels of mastery relied more on emotion-focused coping strategies, which in turn were associated with an upturn in depression between Wave 1 and Wave 2.

There is some past research that has found the same pattern of results. Folkman, Chesney, Pollack, and Coates (1993) found in a study of HIV-positive gay men that those who appraised the stress as controllable were more likely to use problem-focused coping, which in turn was associated with decreases in depression. In a study of coping with chronic pain, Elliot, Trief, and Stein (1986) found that a high level of mastery was associated with the use of coping strategies aimed at modifying the situation and that those patients who used these problem-focused strategies reported less marital strain than those who relied on emotion-focused coping. In a similar vein, in an investigation of coping in community-residing adults, Aldwin (1991) found that the appraisal of control had no direct effect on depressive symptoms but had an indirect effect by influencing how individuals coped in stressful situations. Individuals who perceived greater control were more likely to use instrumental actions to cope with stress and consequently had lower levels of depressive symptoms, whereas those who perceived lower levels of control were more likely to use escapism and had higher levels of depression. This convergence of evidence indicates that the appraisal of control plays a pivotal role in understanding the conditions under which different types of coping strategies are effective in reducing the negative effects of stress.

One observation that emerges from this analysis and from many previous studies of caregiving is that emotion-focused coping involving venting frustration or detaching from the problem are high-risk strategies when used with any frequency. Why is it the case that the use of these types of coping strategies not only fails to reduce levels of depression but in fact amplifies the distress? One possibility is that the potential effectiveness of strategies such as denial and detachment is undermined by cues in the environment that intrude and remind the individual that the problem remains unsolved (Folkman & Lazarus, 1988). For this reason and on the basis of findings of this and other studies, there may be a need to reformulate our conceptual models of emotion-focused coping effects, at least in the caregiving context.

Our findings also address a related theoretical issue regarding emotion-focused coping, namely, whether measures of these coping strategies are confounded with depressive symptoms. If so, the direct effect on depressive symptoms but had an indirect effect by influencing how individuals coped in stressful situations. Individuals who perceived greater control were more likely to use instrumental actions to cope with stress and consequently had lower levels of depressive symptoms, whereas those who perceived lower levels of control were more likely to use escapism and had higher levels of depression. This convergence of evidence indicates that the appraisal of control plays a pivotal role in understanding the conditions under which different types of coping strategies are effective in reducing the negative effects of stress.

There were two significant paths in the final model that we did not hypothesize in our theoretical formulation: the path from education to problem-focused coping and the path from education to emotion-focused coping. Past conceptualizations of factors conditioning the use of different coping strategies have pointed to the importance of social structural characteristics, such as level of education, in determining the choice of coping options (Pearlin, 1989; Pearlin & Schoolder, 1978; Thoits, 1995). People with higher levels of education have access to a wider range of resources that may facilitate effective coping, particularly problem-focused coping. In addition, higher education builds the capacity to solve life's problems, which may account for why daughter caregivers with more education were more likely to turn to problem-focused coping and to avoid emotion-focused coping.

The findings of our research are limited by several methodological considerations, including the absence of persons of color and the relatively small sample size. Although, according to data from the 1990 Census (U.S. Bureau of the Census, 1990), our sample is similar to Wisconsin's population in the percentage of non-Whites, our nearly all-White sample limits the generalizability of the findings. In addition, the small size of the sample limited the number of variables that could be included in our model. In addition, we acknowledge that there are other configurations of the variables in our model, as most of the variables were taken from Wave 1 data. Multi-wave longitudinal research would be better suited to sorting out the causal order of the relationship between mastery, coping, and depression. Nevertheless, the data provided an excellent fit for the model, lending preliminary support to our conceptualization. Finally, an 18-month period is a short slice of time in the career of a daughter caregiver, a role which often extends as long as a decade. Whether the process elucidated here continues to unfold smoothly over the full course of the caregiving career or whether there are alterations and interruptions in the process cannot be determined from the available data.

Juxtaposed against these limitations are notable strengths of our study, including the use of an unselected probability sample of caregivers, the longitudinal design, and the multidimensional approach to measuring caregiver resources. Our data clearly indicate that depression is not the inevitable result of providing care to an elderly parent, but rather that there are social and psychological resources that daughters can use to bolster their mental health during their years in the caregiving role.

References


