

Who Provides Care? A Prospective Study of Caregiving Among Adult Siblings

Karl Pillemer, PhD,^{1,*} and J. Jill Sutor, PhD²

¹Department of Human Development, Cornell University, Ithaca, New York.

²Department of Sociology and Center on Aging and the Life Course, Purdue University, West Lafayette, Indiana.

*Address correspondence to Karl Pillemer, PhD, Human Development, MVR Hall, Cornell University, Ithaca, NY 14853. E-mail: kap6@cornell.edu

Received November 3, 2012; Accepted May 22, 2013
Decision Editor: Rachel Pruchno, PhD

Purpose: We use data from a longitudinal, within-family study to identify factors that predict which adult siblings assumed caregiving responsibilities to older mothers over a 7-year period. **Design and Methods:** Data for the study were collected from 139 older mothers at 2 points 7 years apart regarding their expectations and experiences of care from 537 adult children. **Results:** Children whom mothers identified at T1 as their expected future caregivers were much more likely to provide care when a serious illness occurred. Caregiving offspring were also more likely at T1 to have shared their mothers' values, lived in proximity, and to be daughters. **Implications:** The findings indicate the degree to which a mother's expectations for care predict actual caregiving by that child. Practitioners working with older adults should explore parents' expectations for future care that involves their adult children.

Key Words: Caregiving, Parent–adult child relations, Family issues, Caregiver selection

The critically important role of family members in providing care for older relatives has been documented in both the scientific and public policy literatures. Although the literature on the effects of providing care is extensive (cf., [Pinquart & Sörensen, 2006, 2011](#); [Schulz & Sherwood, 2008](#)), there has been little exploration of predictors of entry into the caregiver role. Scant attention has been paid to the question:

How is a particular child selected from among all offspring within a family to provide care to a parent?

The limited research examining factors that propel one sibling into caregiving and deter or exempt others consists primarily of small qualitative and narrative studies ([Leinonen, 2011](#); [Matthews and Rosner, 1988](#); [Pope, Kolomer, & Glass, 2012](#)). Several investigations have examined alterations over time in sibling caregiver networks but have focused on overall patterns of change at the sibling network level, rather than identifying predictors of which specific children in the family become caregivers ([Szinovacz & Davey, 2007](#); [Tolkacheva, Broese van Groenou, & van Tilburg, 2010](#)). Other investigators have focused on the outcomes of caregiver transitions but not predictors of entry into the role ([Seltzer & Li, 2000](#)).

The research described in this study responds to the need for longitudinal studies of why some adult children assume parent-care responsibilities whereas their siblings do not ([Lawrence, Goodnow, Woods, & Karantzas, 2002](#)). The study uses a prospective, within-family approach in which detailed data were collected from mothers about all of their living adult children at two time points. Most investigations of helping by adult children have used between-family designs, focusing typically on a single child in the family. Comparisons among all offspring have not been possible in these studies. Fundamental to the within-family approach is the view that the characteristics of individual children and of mother–child dyads will, relative to those of

other children and dyads in the family, help explain which children provide care.

In addition, knowledge about the likely characteristics of caregivers comes heavily from cross-sectional studies. However, as a life-course perspective makes clear, caregiving must be seen as a dynamic process, in which adult children move from nonhelping roles into providing care (Moen, Robison, & Dempster-McClain, 1995). The present study responds to this need for longitudinal research by examining how the characteristics of adult siblings prior to the need for care affect who actually assumes care responsibilities. The combination of a longitudinal approach with data collected regarding all children in the family provides a significant advance in the study of caregiving.

Conceptual Framework

We propose a conceptual framework to explain the selection of a caregiver from siblings based on the literature on helping, exchange, and relationship quality between parents and adult children. In this framework, we hypothesize that five preexisting factors will predict which siblings are most likely to provide care to their mothers when the need arises at a later point: (a) similarity between mothers and children; (b) emotional closeness; (c) patterns of exchange; (d) children's availability, and (e) maternal expectations for which offspring will provide care.

Similarity

Interpersonal similarity has been shown to be important for understanding the development and maintenance of relationships throughout the life course (McPherson, Smith-Lovin, & Cook, 2001). In particular, this line of research has demonstrated that individuals are more likely to begin and maintain supportive relationships with others who are similar to them on important social and attitudinal dimensions. Because similarity plays such a prominent role in social relationships, we anticipated that it also would help determine which child would assume caregiving responsibilities. Similarity between relationship partners has been shown to be especially important for provision of social support under stressful circumstances (Smith & Christakis, 2008; Suito & Pillemer, 1996). Therefore, when increasing disability leads to the onset of caregiving, we hypothesize that similarity between mothers and potential caregivers will influence how care provision is distributed within the family.

Gender and value similarity are two particularly salient dimensions in explaining which adult children will become caregivers. The literature has revealed a consistent picture regarding the effect of gender on intergenerational relations, with mothers and daughters reporting stronger affectional ties and greater confiding than mothers and sons (Fingerman, 2001; Rossi & Rossi, 1990; Suito & Pillemer, 2006). Daughters are also heavily overrepresented as helpers with personal and health-related care (Antonucci, Birditt, Sherman, & Trinh, 2011; Henretta, Soldo, & Van Voorhis, 2011; Ogg & Renaut, 2006).

In addition, research on parent–adult child relations has demonstrated that value similarity is central to understanding intergenerational solidarity and affection (Bengtson, 2001; Suito, Sechrist, Gilligan, & Pillemer, 2011). Studies focused on parents and adult children have revealed that perceptions of similarity are among the strongest predictors of relationship quality, including closeness, confiding, preferences for care, and ambivalence (Pillemer et al., 2007; Rossi & Rossi 1990; Suito et al., 2011). Further, McCullough, Wilson, Teasdale, Kolpakchi, and Skelly (1993) demonstrated the role of value consistency between parents and children in long-term care decision making. Therefore, we hypothesized that adult children who were identified by their mothers as sharing her values at T1 would be more likely to become caregivers. In such cases, mothers would anticipate fewer relational tensions with the children and be more comfortable with the possibility of dependence on them.

Emotional Closeness

Studies over the past three decades suggest that emotional closeness and affection are predictors of adult children's helping behavior (Rossi & Rossi, 1990; Stuifbergen, van Delden, & Dykstra, 2008; Tolkacheva et al., 2010) and of parental expectations for which child will care for them if necessary (Pillemer & Suito, 2006). This research led us to anticipate that when mothers' required care, it was more likely to be provided by children to whom they were closer emotionally prior to the onset of caregiving.

Exchange

Exchange concepts aid in understanding patterns of family caregiving (Martin, 2000) and may help to explain particular children's likelihood of providing

care. Patterns of caregiving are presumed to evolve from earlier role relationships in the family, and the selection of a potential caregiver may depend on prior patterns of support provision (Eggebeen & Davey, 1998; Grundy, 2005; Pillemer & Suito, 2006; Pope, Kolomer, & Glass, 2012). On the basis of the literature, we propose that the past receipt of help from the adult child will predict mothers' expectations regarding caregiving, responding to an already existing flow of support from child to parent. Conversely, the past provision of support from the parent has also been hypothesized to lead to care from offspring. This pattern is based on a child's desire to reciprocate assistance received (Dellmann-Jenkins & Brittain, 2003; Henretta, Hill, Li, Soldo, & Wolf, 1997; Silverstein, Conroy, Wang, Giarrusso, & Bengtson, 2002). We therefore also expect that adult children who have received support from their mothers in the precaregiving period will be more likely to provide care to them when it is needed.

Children's Availability

The literature on intergenerational helping suggests that adult children's availability affects the extent to which they participate in parent care (Pavalko, 2011). We conceptualize availability as including indicators of competing roles and responsibilities and proximity to the mother. Because caregiver availability may change as the result of assuming care responsibilities (e.g., a child may leave employment to provide care), it is important to examine these factors in a longitudinal design.

Competing Roles and Responsibilities.—Research guided by the life-course perspective suggests that the likelihood of a child's providing care is related to occupying other adult statuses and roles because competing roles create time constraints that detract from the ability to provide care (Moen et al., 1995). First, being married reduces the likelihood of providing care to parents (Bucx, van Wel, & Knijn, 2012; Dautzenberg, Philipsen, Stevens, Tan, & Vernooij-Dassen, 2000; Laditka & Laditka, 2001). Second, participation in the labor force appears to reduce caregiving to parents, especially for personal care (Fine, 2012; Lilly, Laporte, & Coyte, 2007; Wang, Shyu, Chen, & Yang, 2011). Third, having one's own children has been found to lower the level of parent care (Bucx, Van Wel, & Knijn, 2012; Henretta, Soldo, & Van Voorhis, 2011; Wolf, Freedman, & Soldo, 1997). Thus, we anticipated that offspring who had any of these competing role responsibilities

prior to the onset of care needs would be less likely to become caregivers than would their siblings who had fewer such responsibilities.

Proximity.—Research shows that geographical proximity substantially affects a child's availability to provide care. Specifically, the literature on intergenerational assistance indicates that helping patterns are heavily influenced by proximity; living closer to the parent is one of the strongest predictors of intergenerational support (Spitze, Ward, Deane, & Zhuo, 2012; Stuifbergen, van Delden, & Dykstra, 2008). However, it is important to examine the role of proximity using a longitudinal design. As Mulder and van der Meer (2009) have noted, it is typically assumed that the causal direction runs from proximity to support and care. However, it is also possible that a mother's need for care could be the motivator to move closer, introducing the possibility of a reverse effect. We anticipated that children who lived in closer proximity prior to the onset of caregiving would be more likely to become caregivers, and we test this hypothesis using panel data.

Maternal Expectations

A unique contribution of the research design is that it allows us to examine the role of mothers' differentiation among offspring regarding caregiving and specifically the role of the mother's expectations about who will care for her. Studies of parental favoritism in adulthood have shown that older mothers typically have clear expectations for which children they believe will take on the role of caregiver (Pillemer & Suito, 2006). Further, recent research has shown that whether mothers' wishes are met for which child cares for them affects the mothers' psychological well-being (Suito, Gilligan, & Pillemer, 2013). It is therefore important to explore the degree to which expectations predict actual care provision. Surprisingly, however, no study has examined the effect of parental expectations for care from a particular child prior to the onset of caregiving on the actual provision of care among siblings when the need arises.

We hypothesized that mothers' expectations regarding their care would play a major role in which offspring provide support for serious health events. Even if explicit family discussions do not take place, there is evidence that mothers and offspring share implicit assumptions about care provision (Pecchioni, 2001). Support for this viewpoint comes from research showing that adult children

are generally aware of their parents' expectations regarding care (Suitor, Gilligan, Johnson, & Pillemer, *in press*). Therefore, we hypothesize that mothers' expectations from a particular child will influence the actual pattern of caregiving among siblings.

Summary

On the basis of the prior theory and research, we proposed a set of factors that influence which children within the family serve as caregivers. Specifically, we hypothesized that offspring, relative to their siblings, who provided care for their mother during a serious illness would be (a) children identified by the mothers at T1 as their expected caregivers; (b) children whom mothers perceived as sharing similar values; (c) children who lived in proximity; (d) children to whom the mother was emotionally close; (e) children who had a history of exchanges of both expressive and instrumental support with mothers; (f) children identified by the mothers at T1 as their expected caregivers; and (g) daughters. Conversely, we hypothesized that children would be less likely to become caregivers when at T1 they were (a) married; (b) employed; and (c) parents.

Methods

Procedures

The data used in the analyses were collected as part of the Within-Family Differences Study (WFDS). Massachusetts city and town lists were used as the source of the WFDS sample. With the assistance of the Center for Survey Research at the University of Massachusetts, Boston, we drew a probability sample of women aged 65–75 with two or more children from the greater Boston area. At T1, interviews were conducted with 566 mothers between 2001 and 2003, representing 61% of those who were eligible for participation, a rate comparable with that of similar surveys in the past decade (Dixon & Tucker, 2010).

The original study was expanded to include a second wave of data collection from 2008 to 2011. For the follow-up study, the survey team attempted to contact each mother who participated in the original study. At T2, 420 mothers were interviewed. Of the 146 mothers who participated at only T1, 78 had died between waves, 19 were too ill to be interviewed, 33 refused, and 16 could not be reached. Thus, the 420 represent 86% of mothers who were living at T2. Comparisons between the mothers alive at T2 who did and not participate

revealed that they differed on only education and subjective health; those who participated were somewhat better educated and in better health.

To create the analytic sample for this present study, we selected from the full sample of 420 mothers who met three criteria: (a) those who reported that they had needed assistance in the previous 2 years for a serious illness or injury or for activities of daily living (housekeeping, shopping, or personal care); (b) those who received care for these health events from at least one of their adult children; and (c) those who did not receive care from all of their adult children, thus allowing us to explore why some children in the family became caregivers, whereas others did not. These procedures resulted in a final analytic sample of 537 adult children nested in 139 families; Table 1 presents the demographic characteristics

Table 1. Description of the Variables (Reported by Mothers)

	Mean, <i>SD</i> , %
Mothers' characteristics	(<i>n</i> = 139)
Marital status (%)	
Married	26.6
Divorced/separated	15.1
Widowed	57.6
Never married	.7
Education (in %)	
Less than high school	23.7
High-school graduate	41.7
Some college	15.8
College graduate	18.7
Number of children (<i>SD</i>)	4.0 (1.6)
Nonwhite (%)	36.2
Age in years at T2 (<i>SD</i>)	78.1 (3.2)
Adult children's characteristics	(<i>n</i> = 537)
Daughter (%)	50.5
Age in years at T2	50.1 (5.8)
Education (%)	
High school or less	44.0
Some college	13.3
College graduate	42.7
Employed at T1 (%)	84.7
Married	52.3
Is a parent (%)	67.0
Lives within 2-hr drive (%)	77.8
Shares mothers' values (1–4 high)	2.8 (.87)
Emotional closeness scale (3–12 high)	10.1 (2.1)
Child provided expressive support (%)	68.3
Child provided instrumental support (%)	58.5
Child received expressive support (%)	71.1
Child received instrumental support (%)	32.6
Child named as expected caregiver (%)	23.6
Child provided care to mother for recent health problem	44.1

Notes: T1 = Time 1; T2 = Time 2.

of the analytic sample. Statistical comparisons of the analytic sample and the entire sample at T1 revealed no significant differences on any demographic characteristic (educational attainment, marital status, age, number of living adult children, race, or religion).

Measures

Dependent Variable.—At T2, each mother was asked whether she had experienced a serious illness or injury for which she needed help in the previous 2 years or whether she needed assistance with any of several activities of daily living (housekeeping, shopping, bathing, eating, or toileting). If she responded that she had needed help in any of these contexts, we asked whether she had received help from any of her children, and if so, which children. These responses were then used to classify each child in the family as having provided or not having provided the mother with care in any of these contexts in two previous years. Each child was classified as follows: 1 = provided care in at least one care need context; or 0 = did not provide care in any care need context. One-hundred-thirty-nine mothers reported having received support from some but not all of their children; 40.7% received care from only one child; 53.6% received care from two of their children, and 5% received care from three or more of their children. Altogether, of the 537 offspring about whom mothers reported, 43.6% provided care in response to the recent serious health event or chronic care need.

Within-family Independent Variables.—All of the predictors of providing care to mothers were measured at T1 and were collected from the mothers regarding each of their adult children.

Similarity. We coded the child's gender as 0 = son and 1 = daughter. We assessed perceived value similarity using the measure by Rossi and Rossi (1990), asking mothers: "Parents and children are sometimes similar to each other in their views and opinions and sometimes different from each other. Would you say that you and [child's name] share very similar views (4), similar views (3), different views (2), or very different views (1) in terms of general outlook on life?"

Emotional closeness. To measure emotional closeness, we used a three-item scale. The items were as follows: (1) Use any number from 1 to 7,

where 1 is very distant and 7 is very close. What number would you use to describe the relationship between you and (child's name) nowadays?; (2) How often does (child's name) make you feel loved or cared for—very often (5), fairly often, sometimes, rarely, or never (1)?; and (3) Being with (child's name) makes you feel very happy—strongly agree (4), agree, disagree, and strongly disagree (1). To create the closeness measure, we transformed the items to make the ranges comparable. Because the distributions were positively skewed, we collapsed the lowest categories of each item so that the scores ranged from 1 (*low*) to 4 (*high*), as has been done previously when using these items to create scales of intergenerational closeness (Suitor, Gilligan, & Pillemer, 2011). The range of the combined positive relationship scale was 3–12. The mean was 10.1 (standard deviation [*SD*] = 2.1); Cronbach's alpha was .73.

Exchange. To assess expressive support, at T1, mothers were asked about the support they gave to and received from each of their adult children. To measure expressive support received, mothers were asked the following: In the past year, has [child's name] given you (a) comfort during a personal crisis or (b) advice? Each item was coded 0 or 1. We then combined the two items into a single measure of expressive support. Mothers were asked the same questions regarding support provided to each of their adult children, and the same procedures were followed to create the measure of expressive support provided to children. Based on the mothers' reports, 71.1% of the adult children had received expressive support during the previous year, and 68.3% of the adult children had provided the mothers with expressive support.

To assess instrumental support at T1, mothers were asked whether, in the past, the child had provided (a) help with household chores and (b) help when ill. Each item was coded 0 or 1. We then combined the two items into one measure of instrumental support. Mothers were asked the same questions regarding support they provided to each of their adult children, and the same procedures were followed to create the measure of instrumental support provided to children. Based on the mothers' reports, 32.6% of the adult children had received instrumental support from their mothers during the previous year, and 58.5% of the adult children had provided the mothers with instrumental support.

Children's availability. We conceptualized children's availability as competing roles and responsibilities and proximity.

We measured children's competing roles and responsibilities using marital status, employment, and parenthood at T1. We classified each child as 0 = child not married and 1 = child married. We asked mothers whether their children were employed and classified each child as 0 = not employed or 1 = employed. We measured parenthood by whether the adult child had any children (0 = no children; 1 = had children).

We measured proximity by the distance the child lived from the mother by ground transportation at T1. Categories were (a) same house; (b) same neighborhood; (c) less than 15 min away; (d) 15–30 min away; (e) 30–60 min away; (f) more than 1 hr but less than 2 hr; and (g) 2 or more hours away. To be consistent with previous research on caregiving expectations (Pillemer & Suitor, 2006), we transformed the categories into lived within a 2-hr drive (1) and lived beyond a 2-hr drive (0).

Expectations. Mothers' expectations at T1 for caregiving were measured by asking which child they expected would provide them with care in the future. As part of a series of questions asking mothers to differentiate among their children, they were asked which of their children would be most likely to care for them on a day-to-day basis if they became ill or disabled. Each child was coded as having been or not having been identified by the mother as an expected future caregiver (0 = not selected; 1 = identified as future caregiver).

Control variables. We included child's age, family size, and race as controls. Age was measured in years. Family size was the number of adult children in the family alive at T2.

Race was measured by asking the mothers to select from a card listing several races and ethnicities (e.g., white, black or African American, Hispanic or Latina, Native American, Asian). They were instructed that they could choose more than one race or ethnicity. The analytic sample for this study included 93 mothers who identified themselves as white, 44 who identified as black, 1 as Hispanic, and 1 as American Indian. Based on the literature on later-life families, which has shown greater filial responsibility in black, Asian, and Hispanic than white families, we coded race as white = 1 and not white = 0.

Analytic Plan

Throughout the multivariate analyses, the parent–child dyad, rather than the parent, was the unit of analysis. In other words, the 537 children who were the units of analysis were nested within the 139 mothers on whose reports the present analysis is based; thus, the observations were not independent. To take this factor into account, we used multilevel binomial logistic regression. This technique also allowed us to address our specific question, What factors differentiated between children who provided care to their mothers and their siblings who did not? Further, multilevel binomial techniques allowed us to control on family size and race. The analyses were conducted using SPSS21. Listwise deletion was used to handle missing data on the independent variables because there were fewer than 2% missing on any variable in the analysis (cf. Allison, 2010).

Results

The findings of the multilevel binomial logistic regression analysis are presented in Table 2. The analysis revealed support for four of our hypotheses regarding which children provided care for their mothers following a recent illness or injury or for a chronic condition. First, the analysis demonstrated the importance of mothers' expectations in determining which children assume caregiving responsibilities. The odds of children becoming caregivers when their mothers identified them at T1 as most likely to assume this responsibility were three times greater than those of children who were not identified as future caregivers (odds ratio [OR] = 3.01). This finding is especially impressive given that the mothers identified these children 5–7 years before the health events to which the children responded.

Second, proximity was a particularly strong predictor of becoming a caregiver; the odds of children who lived within a 2-hr drive at T1 providing care were six times greater than those of children who lived further away (OR = 6.41). Although offspring can remain engaged in aspects of parents' lives from remote locations (e.g., providing advice or emotional support), ongoing care provision apparently differs in that it requires frequent face-to-face contact.

Third, the findings provided support for the hypothesis regarding similarity. The odds of becoming a caregiver were more than twice as great for daughters as sons (OR = 2.16). Children

Table 2. Binomial Logistic Regression Predicting Child Providing Care for Mothers' Recent Illness or Injury ($n = 537$)

	Odds ratio	95% confidence interval
Family level characteristics		
Number of living children at T2	0.84**	0.74–0.95
Race (nonwhite)	1.18	0.74–1.88
Child-level characteristics		
Similarity		
Daughter	2.16**	1.40–3.32
Shares mothers' values	1.29*	0.99–1.70
Emotional closeness	1.10	0.97–1.24
Exchange		
Child provided expressive support	1.19	0.73–1.95
Child provided instrumental support	1.26	0.80–2.00
Child received expressive support	1.36	0.82–2.27
Child received instrumental support	1.50	0.95–2.37
Availability		
Competing roles and responsibilities		
Married	1.19	0.72–1.95
Employed	0.99	0.55–1.80
Parent	0.86	0.52–1.39
Lives within 2-hr drive	6.41**	3.39–12.12
Age	1.00	0.96–1.04
Child named as expected caregiver	3.01**	1.82–4.97
Log likelihood	574.424	
Akaike's Information Criterion	607.470	
Bayesian Information Criterion	675.000	

Note: T2 = Time 2.

* $p < .10$. ** $p < .01$.

whom the mothers perceived as sharing their values at T1 also were more likely to become caregivers, although this association only approached statistical significance (OR = 1.29; $p < .06$).

Additional Analyses

To further elucidate the findings regarding which sibling provides care, we conducted three additional analyses (data not shown). First, entry into the analytic sample could occur in two ways: if the mother had a chronic condition or if she had an acute illness or injury that led to the need for care. It is possible that caregiver selection might differ depending on chronic versus acute care needs. We conducted the analyses separately for the two conditions and found no significant differences between the models on any predictors.

Second, we questioned whether the absence of effects for several predictors might be due to collinearity. Although some predictors are correlated (e.g., closeness and similarity [$r = .48$]), collinearity diagnostics revealed no variance inflation factors (VIF) greater than 1.5. Third, it is possible that mothers' expectations could serve as a mediator, also leading to the absence of effects of some

predictors. To assess this possibility, we conducted analyses using a nested approach and found that the effects of other predictors were not mediated by mothers' expectations. Specifically, we found that introducing mothers' expectations into the model did not significantly change the magnitude of effects of other predictors.

Discussion

This study represents the first prospective, within-family study of differential assumption of caregiving responsibilities among siblings. Unlike previous research, the longitudinal, within-family design allows us to shed new light on the factors that propel some adult children to provide care while their siblings do not. For example, in cross-sectional studies it might appear that mothers are more likely to be cared for by children with whom they shared similar values. However, it is possible that receipt of care would lead mothers to perceive the child as more similar, in an effort to increase their level of comfort with that situation. The data we have presented allowed us to begin to disentangle the temporal ordering regarding predictors of becoming a caregiver.

A noteworthy finding is that mothers' expectations in the precaregiving stage are strongly predictive of actual caregiver selection in the family. Research has generally offered a pessimistic picture of planning for future care needs, showing that older adults rarely do so in the absence of a crisis (Friedemann, Newman, Seff, & Dunlop, 2004; Kahana, Dan, Kahana, & Kercher, 2004). Our findings suggest, however, that many older people do in fact have a plan for assistance from a specific child and that the plan is surprisingly accurate. The relationship between mothers' care expectations and more general preparation for long-term care needs is a fruitful topic for further research.

This present study also makes an important contribution to understanding the role of proximity in caregiver selection. Because our results are based on the T1 measure of proximity (prior to mothers' needing care), the study provides evidence that proximity predicts entry into the caregiver role rather than the reverse. Thus, the findings presented here reinforce research showing that caring for older relatives occurs in a spatial context (Joseph & Hallman, 1998). Despite recent attention to "long-distance caregiving" (Bledsoe, Moore, & Collins, 2010), proximity in the precaregiving phase clearly plays a key role in the allocation of caregiving responsibilities within a family.

Several limitations of this study point to directions for future research. First, in this study we focused exclusively on the reports of mothers regarding care provided by adult children. Because differences have been identified in the degree to which parents and adult children report support exchanges (Kim, Zarit, Eggebeen, Birditt, & Fingerman, 2011), future research should examine movement into the caregiver role from the child's perspective. Second, mothers' assessments may differ from those of fathers on important dimensions of intergenerational relations (Pillemer, Munsch, Fuller-Rowell, Riffin, & Suito, 2012); studies of fathers—and in particular the role of fathers' expectations—are needed. Third, we chose a 7-year lag between interviews because we wished to allow for some mothers to transition from having no need for care to requiring caregiving assistance. We recognize that it would be desirable to examine whether the patterns of within-family differences in caregiving persist or change over a longer time frame; future research should be conducted with additional waves of data.

The findings that expectations for care, proximity, and gender drive the distribution of caregiving

responsibilities among siblings have implications for practice. Neuharth and Stern (2002) have demonstrated that if one child in the family is expected to provide care, the other siblings reduce their caregiving commitments. Further, Lieberman and Fisher (1999) alert us to the need to attend to the entire family system of care and in particular the family's decision-making style. Therefore, direct discussion of this topic should be encouraged by counselors working with aging families (Little, 2004). Because of the likelihood for a sibling with a particular profile to become a caregiver—a daughter who resides nearby and whom the mother expects to perform the role—alternatives to this possibility may be limited. Given research showing that relations with siblings are a major source of stress for adult-child caregivers (Suito & Pillemer, 1996), open discussion of expectations among siblings may reduce such tension (Bromley & Blieszner, 1997; Sörensen, Webster, & Roggman, 2002). Family mediation has been suggested as a promising intervention to enhance within-family communication and decision making (Parsons & Cox, 1989).

Finally, the results presented here pose an interesting question regarding the future of informal support for frail or disabled older persons. The mothers in this study were parents of the baby-boom cohort, which is characterized by large family sizes (Fingerman, Pillemer, Silverstein, & Suito, 2012). In contrast, the baby boomers are much more likely to have one or two children. In addition, daughters moving into middle age as the leading edge of the baby boom enters old age are much more likely to be employed than in the past. This situation may provide an example of "structural lag," that is, when existing structural arrangements no longer fit the needs and behavior of societal members (Riley, Kahn, & Foner, 1994). The cultural and structural factors that lead care to be expected from the nearest daughter may not apply in a society with full employment and high geographic mobility for women. Research is needed that tracks the changing family care patterns of the baby boomers as they enter the seventh and eighth decades of life.

Funding

This study was supported by the National Institute on Aging (2RO1 AG18869-04 to J. Suito and K. Pillemer).

Acknowledgments

K. Pillemer acknowledges support from Grant 1 P30 AG022845, an Edward R. Roybal Center grant from the National Institute on Aging. J. Suito acknowledges support from the Center on Aging and the Life

Course at Purdue. We would like to thank Paul Allison and Megan Gilligan for their consultations regarding the data analysis and Catherine Riffin and Christine Januzzi for helpful comments.

References

- Allison, P. (2010). Missing data. In J. Wright & P. Marsden (Eds.), *Handbook of Survey Research* (pp. 631–658). Bingley, UK: Emerald Group Limited.
- Antonucci, T. C., Birditt, K. S., Sherman, C. W., & Trinh, S. (2011). Stability and change in the intergenerational family: A convoy approach. *Ageing and Society, 31*, 1084–1106. doi:10.1017/S0144686X1000098X
- Bengtson, V. (2001). Beyond the nuclear family: The increasing importance of multigenerational bonds (The Burgess Award Lecture). *Journal of Marriage and Family, 63*, 1–16. doi:10.1111/j.1741-3737.2001.00001.x
- Bledsoe, L. K., Moore, S. E., & Collins, W. L. (2010). Long distance caregiving: An evaluative review of the literature. *Ageing International, 35*, 293–310. doi:10.1007/s12126-010-9062-3
- Bromley, M. C., & Blieszner, R. (1997). Planning for long-term care: Filial behavior and relationship quality of adult children with independent parents. *Family Relations, 46*, 155–162. doi:10.2307/585039
- Bucx, F., van Wel, F., & Knijn, T. (2012). Life course status and exchanges of support between young adults and parents. *Journal of Marriage and Family, 74*, 101–115. doi:10.1111/j.1741-3737.2011.00883.x
- Dautzenberg, M. G. H., Philipsen, H., Stevens, F. C. J., Tan, F. E. S., & Vernooij-Dassen, M. J. F. J. (2000). The competing demands of paid work and parent care: Middle aged daughters providing care to elderly parents. *Research on Aging, 22*, 165–187. doi:10.1177/0164027500222004
- Dellmann-Jenkins, M., & Brittain, L. (2003). Young adults' attitudes toward filial responsibility and actual assistance to elderly family members. *Journal of Applied Gerontology, 22*, 214–229. doi:10.1177/073346803022002003
- Dixon, J., & Tucker, C. (2010). Survey nonresponse. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of survey research* (pp. 593–630). Bingley, UK: Emerald Books.
- EGgebeen, D. J., & Davey, A. (1998). Do safety nets work? The role of anticipated help in times of need. *Journal of Marriage and the Family, 60*, 939–950. doi:10.2307/353636
- Fine, M. D. (2012). Employment and informal care: Sustaining paid work and caregiving in community and home-based care. *Ageing International, 37*, 57–68. doi:10.1007/s12126-011-9137-9
- Fingerman, K. L. (2001). A distant closeness: Intimacy between parents and their children in later life. *Generations, 25*, 26–33.
- Fingerman, K. L., Pillemer, K. A., Silverstein, M., & Suito, J. J. (2012). The Baby Boomers' intergenerational relationships. *The Gerontologist, 52*, 199–209. doi:10.1093/geront/gnr139
- Friedemann, M. L., Newman, F. L., Seff, L. R., & Dunlop, B. D. (2004). Planning for long-term care: Concept, definition, and measurement. *The Gerontologist, 44*, 520–530. doi:10.1093/geront/44.4.520
- Grundy, E. (2005). Reciprocity in relationships: Socio-economic and health influences on intergenerational exchanges between third age parents and their adult children in Great Britain. *The British Journal of Sociology, 56*, 233–255. doi:10.1111/j.1468-4446.2005.00057.x
- Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J., & Wolf, D. A. (1997). Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology: Psychological Sciences and Social Sciences, 52*, 110–119. doi:10.1093/geronb/52B.Special_Issue.110
- Henretta, J. C., Soldo, B. J., & Van Voorhis, M. F. (2011). Why do families differ? Children's care for an unmarried mother. *Journal of Marriage and the Family, 73*, 383–395. doi:10.1111/j.1741-3737.2010.00813.x
- Joseph, A. E., & Hallman, B. C. (1998). Over the hill and far away: Distance as a barrier to the provision of assistance to elderly relatives. *Social Science & Medicine (1982), 46*, 631–639. doi:10.1016/S0277-9536(97)00181-0
- Kahana, B., Dan, A., Kahana, E., & Kercher, K. (2004). The personal and social context of planning for end-of-life care. *Journal of the American Geriatrics Society, 52*, 1163–1167. doi:10.1111/j.1532-5415.2004.52316.x
- Kim, K., Zarit, S. H., Eggebeen, D. J., Birditt, K. S., & Fingerman, K. L. (2011). Discrepancies in reports of support exchanges between aging parents and their middle-aged children. *Journal of Gerontology: Psychological Sciences, 66*, P527–P537. doi:10.1093/geronb/gbr029
- Laditka, S. B., & Laditka, J. N. (2001). Utilization, costs, and access to primary care in fee-for-service and managed care plans. *Journal of Health & Social Policy, 13*(1), 21–39. doi:10.1300/J045v13n01_02
- Lawrence, J. A., Goodnow, J. J., Woods, K., & Karantzas, G. (2002). Distributions of caregiving tasks among family members: The place of gender and availability. *Journal of Family Psychology, 16*, 493–509. doi:10.1037/0893-3200.16.4.493
- Leinonen, A. (2011). Adult children and parental care-giving: Making sense of participation patterns among siblings. *Ageing and Society, 31*, 308–327. doi:10.1017/S0144686X10001042
- Lieberman, M. A., & Fisher, L. (1999). The effects of family conflict resolution and decision making on the provision of help for an elder with Alzheimer's disease. *The Gerontologist, 39*, 159–166. doi:10.1093/geront/39.2.159
- Lilly, M. B., Laporte, A., & Coyte, P. C. (2007). Labor market work and home care's unpaid caregivers: A systematic review of labor force participation rates, predictors of labor market withdrawal, and hours of work. *The Milbank Quarterly, 85*, 641–690. doi:10.1111/j.1468-0009.2007.00504.x
- Little, D. (2004). Family therapy in the context of families with older members and members with dementia: A review. *Geriatrics and Aging, 7*, 54–57.
- Martin, C. (2000). More than the work. *Journal of Family Issues, 21*, 986–1006. doi:10.1177/019251300021008003
- Matthews, S. H., & Rosner, S. H. (1988). Shared filial responsibility: The family as the primary caregiver. *Journal of Marriage and the Family, 50*, 185–195. doi:org/10.2307/352438
- McCullough, L. B., Wilson, N. L., Teasdale, T. A., Kolpakchi, A. L., & Skelly, J. R. (1993). Mapping personal, familial, and professional values in long-term care decisions. *The Gerontologist, 33*, 324–332. doi:10.1093/geront/33.3.324
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology, 27*, 415–444. doi:10.1146/annurev.soc.27.1.415
- Moen, P., Robison, J., & Dempster-McClain, D. (1995). Caregiving and women's well-being: A life course approach. *Journal of Health and Social Behavior, 36*, 259–273. doi:10.2307/2137342
- Mulder, C. H., & van der Meer, M. J. (2009). Geographical distances and support from family members. *Population, Space, and Place, 15*, 381–399. doi:10.1002/psp.557
- Neuharth, T. J., & Stern, S. (2002). Shared caregiving responsibilities of adult siblings with elderly parents. *Journal of Human Resources, 37*, 441–478.
- Ogg, J., & Renaut, S. (2006). The support of parents in old age by those born during 1945–1954: A European perspective. *Ageing and Society, 26*, 723–743. doi:10.1017/S0144686X060004922
- Parsons, R. J., & Cox, E. O. (1989). Family mediation in elder caregiving decisions: An empowerment intervention. *Social Work, 34*, 122–126. doi:10.1093/sw/34.2.122
- Pavalko, E. (2011). Caregiving and the life course. In R. Settersten & J. Angel. (Eds.), *Handbook of Sociology of Aging* (pp. 603–618). New York: Springer.
- Pecchioni, L. L. (2001). Implicit decision-making in family caregiving. *Journal of Social and Personal Relationships, 18*, 219–237. doi:10.1177/0265407501182004
- Pillemer, K., Munsch, C. L., Fuller-Rowell, T., Riffin, C., & Suito, J. J. (2012). Ambivalence toward adult children: Differences between mothers and fathers. *Journal of Marriage and Family, 74*, 1101–1113. doi:10.1111/j.1741-3737.2012.01004.x
- Pillemer, K., & Suito, J. J. (2006). Making choices: A within-family study of caregiver selection. *The Gerontologist, 46*, 439–448. doi:10.1093/geront/46.4.439
- Pillemer, K., Suito, J. J., Mock, S. E., Sabir, M., Pardo, T., & Sechrist, J. (2007). Capturing the complexity of intergenerational relations: Exploring ambivalence within later-life families. *Journal of Social Issues, 63*, 775–791. doi:10.1111/j.1540-4560.2007.00536.x
- Pinquart, M., & Sörensen, S. (2006). Gender differences in caregiver stressors, social resources, and health: An updated meta-analysis. *Journal of Gerontology: Psychological Sciences, 61*(1), P33–P45. doi:10.1093/geronb/61.1.P33
- Pinquart, M., & Sörensen, S. (2011). Spouses, adult children, and children-in-law as caregivers of older adults: A meta-analytic comparison. *Psychology and Aging, 26*(1), 1–14. doi:10.1037/a0021863
- Pope, N. D., Kolomer, S., & Glass, A. P. (2012). How women in late midlife become caregivers for their aging parents. *Journal of Women & Aging, 24*, 242–261. doi:10.1080/08952841.2012.639676
- Quinn, C., Clare, L., & Woods, B. (2009). The impact of the quality of relationship on the experiences and wellbeing of caregivers of people with dementia: A systematic review. *Ageing & Mental Health, 13*, 143–154. doi:10.1080/13607860802459799

- Riley, M. W., Kahn, R. L., & Foner, A. (1994). *Age and structural lag: Society's failure to provide meaningful opportunities in work, family, and leisure*. New York: John Wiley & Sons.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine.
- Savage, S., & Bailey, S. (2004). The impact of caring on caregivers' mental health: A review of the literature. *Australian Health Review: a publication of the Australian Hospital Association*, 27(1), 111–117. doi:10.1071/AH042710111
- Schulz, R., & Sherwood, P. R. (2008). Physical and mental health effects of family caregiving. *Journal of Mental Health Education*, 44, 105–113. doi:10.5175/JJSWE.2008.773247702
- Seltzer, M. M., & Li, L. W. (2000). The dynamics of caregiving: Transitions during a three-year prospective study. *The Gerontologist*, 40, 165–178. doi:10.1093/geront/40.2.165
- Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002). Reciprocity in parent-child relations over the adult life course. *Journal of Gerontology: Psychological Sciences and Social Sciences*, 57(1), S3–S13. doi:10.1093/geronb/57.1.S3
- Smith, K. P., & Christakis (2008). Social networks and health. *Annual Review of Sociology*, 34, 405–429. doi:10.1146/annurev.soc.34.040507.134601
- Sörensen, S., Webster, J. D., & Roggman, L. A. (2002). Adult attachment and preparing to provide care for older relatives. *Attachment & Human Development*, 4(1), 84–106. doi:10.1080/14616730210123102
- Spitze, G., Ward, R., Deane, G., & Zhuo, Y. (2012). Cross-sibling effects in parent-adult child exchanges of socioemotional support. *Research on Aging*, 34, 197–221. doi:10.1177/0164027511420170
- Stuifbergen, M. C., Van Delden, J. J. M., & Dykstra, P. A. (2008). The implications of today's family structures for support giving to older parents. *Ageing and Society*, 28, 413–434. doi:10.1017/S0144686X07006666
- Suitor, J. J., Gilligan, M., Johnson, K., & Pillemer, K. (In press). How widowhood shapes adult children's responses to mothers' preferences for care. *Journal of Gerontology: Social Sciences*. Advance online publication. doi:10.1093/geronb/gbt062
- Suitor, J. J., Gilligan, M., & Pillemer, K. (2011). Conceptualizing and measuring intergenerational ambivalence in later life. *Journal of Gerontology: Social Sciences*, 66, S769–S781. doi:10.1093/geronb/gbr108
- Suitor, J. J., Gilligan, M., & Pillemer, K. (2013). The role of violated caregiver preferences in psychological well-being when older mothers need assistance. *The Gerontologist*, 53, 388–396. doi:10.1093/geront/gns084
- Suitor, J. J., & Pillemer, K. (2006). Choosing daughters: Exploring why mothers favor adult daughters over sons. *Sociological Perspectives*, 49, 139–162. doi:10.1525/sop.2006.49.2.139
- Suitor, J. J., & Pillemer, K. (1996). Sources of support and interpersonal stress in the networks of married caregiving daughters: Findings from a 2-year longitudinal study. *Journal of Gerontology: Social Sciences*, 51, S297–S306. doi:10.1093/geronb/51B.6.S297
- Suitor, J. J., Sechrist, J., Gilligan, M., & Pillemer, K. (2011). Family relationships in later life. In R. Settersten & J. Angel (Eds.), *Handbook of sociology of aging* (pp. 161–178). New York, NY: Springer.
- Szinovacz, M. E., & Davey, A. (2007). Changes in adult child caregiver networks. *The Gerontologist*, 47, 280–295. doi:10.1093/geront/47.3.280
- Tolkacheva, N., Broese van Groenou, M., & van Tilburg, T. (2010). Sibling influence on care given by children to older parents. *Research on Aging*, 32, 739–759. doi:10.1177/0164027510383532
- Wang, Y. N., Shyu, Y. I., Chen, M. C., & Yang, P. S. (2011). Reconciling work and family caregiving among adult-child family caregivers of older people with dementia: Effects on role strain and depressive symptoms. *Journal of Advanced Nursing*, 67, 829–840. doi:10.1111/j.1365-2648.2010.05505.x
- Wolf, D. A., Freedman, V., & Soldo, B. J. (1997). The division of family labor: Care for elderly parents. *Journal of Gerontology: Psychological Sciences and Social Sciences*, 52, 102–109. doi:10.1093/geronb/52B.Special_Issue.102