Caregiving, Perceptions of Maternal Favoritism, and Tension Among Siblings

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Purpose: Studies of later-life families have revealed that sibling tension often increases in response to parents' need for care. Both theory and research on within-family differences suggest that when parents' health declines, sibling relations may be affected by which children assume care and whether siblings perceive that the parent favors some offspring over others. In the present study, we explore the ways in which these factors shape sibling tension both independently and in combination during caregiving. Design and Methods: In this article, we use data collected from 450 adult children nested within 214 laterlife families in which the offspring reported that their mothers needed care within 2 years prior to the interview. **Results:** Multilevel analyses demonstrated that providing care and perceiving favoritism regarding future caregiving were associated with sibling tension following mothers' major health events. Further, the effects of caregiving on sibling tension were greater when perceptions of favoritism were also present. Implications: These findings shed new light on the conditions under which adult children are likely to experience high levels of sibling tension during caregiving. Understanding these processes is important because siblings are typically the individuals to whom caregivers are most likely to turn for support when assuming care of older parents, yet these relationships are often a major source of interpersonal stress.

Key Words: Caregiver stress, Caregiving—informal, Intergenerational relationships, Parent/child relationships

Caregiving to older parents is a highly stressful role that increases risk to both psychological and physical well-being (Marks, Lambert, Jun, & Song, 2008; Perkins et al., 2012; Pinquart & Sorensen, 2006). These outcomes have been found to be moderated by both the presence of social support and the absence of interpersonal stress, particularly from highly salient role partners (Atienza & Stephens, 2000; Heru, Ryan, & Iqbal, 2004; Kang, 2006; Kwak, Ingersoll-Dayton, & Kim, 2012). However, becoming a caregiver is a transition that often increases tension with the individuals who are most important in this context (Bookwala, 2009), and in particular with siblings (Connidis & Kemp, 2008; Davey & Szinovacz, 2008; Gentry, 2001; Ingersoll-Dayton, Neal, Ha, & Hammer, 2003; Lashewicz & Keating, 2009). It is therefore important to understand the conditions under which sibling relations are the most likely to be problematic during caregiving.

In this article, we focus on factors that increase the risk that siblings will experience high levels of tension in their relationship when their mothers are in need of care. We explore the ways in which the provision of care and perceptions of parental favoritism regarding care preferences intersect to increase tension when mothers need assistance. To investigate this question, we use data collected from 450 adult children nested within 214 laterlife families in which the offspring reported that their mothers needed care within 2 years prior to the interview.

Within-Family Differences in Sibling Tension During Caregiving

The role of social support in moderating stress following life events and status transitions has long been a cornerstone of scholarship on caregiving (Pearlin, Mullan, Semple, & Skaff, 1990; Pearlin, Pioli, & McLaughlin, 2001). This body of research has demonstrated that emotional support from significant role partners provides a buffer from the stresses of such events (Walen & Lachman, 2000). However, the broader literature on support processes shows that even more important is the absence of interpersonal stress, such as criticism, high demands, unwanted and unhelpful advice, and unmet needs for support (Okun & Keith, 1998; Rook, 1998; Schuster, Kessler, & Aseltine, 1990; Serido, Almeida, & Wethington, 2004).

This point is particularly relevant to interaction and relationship quality between siblings when parents require care because siblings often are a source of both support and interpersonal stress during this time (Connidis & Kemp, 2008; Gentry, 2001; Lashewicz & Keating, 2009; Suitor & Pillemer, 1996; Tolkacheva, van Groenou, & van Tilburg, 2010). As shown by Suitor and Pillemer's (1996) study of siblings' relationships across the early years of parental caregiving, although support from sisters and brothers was greatly appreciated, it was both overshadowed and undermined by the interpersonal stress emanating from these relationships. Thus, it is important to understand what leads siblings to have high levels of tension in their relationships when parents need care because even high levels of positive interaction do not buffer stress when they are accompanied by interpersonal stress.

We begin with the premise that although sibling tension often exists in families in which parents need care, the experience of such negative affect may vary considerably within the sibship. We suggest that siblings who provide care are more likely to experience high levels of conflict, criticism, and demands than are their brothers and sisters who do not provide care. As already noted, a substantial body of research has documented that caregiving to older parents is highly stressful and demanding, with costs to both psychological and physical well-being (Marks et al., 2008; Perkins et al. 2012; Pinquart & Sorensen, 2006). Such consequences on well-being could be expected to lead to greater conflict in relationships with siblings, as has been shown in the case of relations with other role partners when assuming multiple demanding roles (Amato, Booth, Johnson, & Rogers, 2007; Bookwala, 2009; Robinson, Flowers, & Ng, 2006). For example, spousal conflict has been shown to increase when husbands' or wives' job stress or parenting responsibilities lower psychological wellbeing (Amato et al., 2007; Perry-Jenkins, Goldberg, Pierce, & Sayer, 2007; Roxburgh, 2012). Further, studies have found that the stress associated with caregiving to older parents often increases marital tension (Bookwala, 2009; Suitor & Pillemer, 1996).

On these bases, we hypothesized that individuals who had provided care to their mothers for a recent health event or chronic condition would report greater tension with siblings than would those who had not provided care.

Perceptions of Favoritism and Sibling Tension During Caregiving

We propose that perceptions of parental favoritism will also play a role in sibling relations during caregiving. A common theme in both popular and scholarly discussions of sibling relations and caregiving is that serious declines in parents' health reactivate long-buried conflicts among offspring regarding expressive and instrumental resources (Lashewicz & Keating, 2009; Suitor & Pillemer, 1996). In fact, popular articles and self-help guides on caregiving for parents often point to such renewed sibling rivalry as a major source of stress for adult children (AARP, 2011; Berman, 2005; Russo, 2010). However, research on within-family differences has shown that concerns regarding parental differential treatment are common throughout the life course, rather than reemerging only when parents experience declines in health and increases in care needs (Suitor, Sechrist, Plikuhn, Pardo, & Pillemer, 2008).

Further, perceptions of parental differential treatment have consequences for sibling relations in adulthood. In particular, studies have revealed a pattern of higher tension and lower closeness among siblings when they perceived that their parents felt more emotional closeness for some siblings than others (Boll, Ferring, & Filipp, 2003, 2005; Gilligan, Suitor, & Pillemer, in press; Suitor et al., 2009). Such tension appeared to emanate from perceptions of parental favoritism regardless of whether adult children perceived themselves or other siblings as the preferred offspring (Boll et al., 2005; Gilligan et al., in press; Suitor et al., 2009). Indeed, perceived favoritism specifically regarding filial responsibility had similar effects on sibling

tension regardless of whether the respondent perceived him or herself as the favored or unfavored child (Boll et al., 2003, 2005). This pattern found in adulthood is consistent with research on the consequences of parental favoritism on sibling relations in childhood (Suitor et al., 2008). Thus, consistent with classic theories of relational equity (Walster, Walster, & Berscheid, 1978), regardless of whether adult children perceive that they are overbenefitted or underbenefitted, relative to their siblings, perceptions of unequal treatment are associated with poorer relationship quality.

Research on parental favoritism and sibling relations in adulthood has focused on these processes prior to parents' need for care (Boll et al., 2005; Suitor et al., 2009). We hypothesize that such perceptions of favoritism will, in fact, be particularly strong predictors of sibling relations when parents' health declines and they are in need of assistance. Prior to this point in the life course, interaction with siblings is more voluntary and is unlikely to involve the intense decision-making processes often required when parents begin to need care (Aquilino, Arnett, & Tanner, 2006; Conger & Little, 2010). However, when parents experience a serious health decline and siblings must come together to plan for their care, they are engaging in an unfamiliar yet very consequential process for which they have had little preparation. Such interactions are difficult under any circumstances; however, they are likely to be much more problematic when members of the sibship perceive that their mothers prefer some offspring over others, particularly regarding their future caregivers. Thus, we hypothesized that adult children who perceived their mothers as favoring some children over others as caregivers would report the greatest tension in their relationships with their siblings, regardless of which child they believed was favored.

Finally, we propose that when both responsibility for caregiving and perceptions of favoritism are present, adult children will report greater tension with their siblings than when only one of these two conditions is met. Therefore, we test a third hypothesis—that the association between recent caregiving and sibling tension will be stronger when adult children perceive their mothers as favoring particular offspring as future caregivers.

Methods

The data used in the present analyses were collected as part of the Within-Family Differences Study (WFDS). The design of the WFDS involved selecting a sample of mothers 65-75 years of age with at least two living adult children and collecting data from mothers regarding each of their children. (For a more detailed description of the WFDS design, see Gilligan et al., in press; Suitor, Gilligan, & Pillemer, 2013, where portions of this section have been published previously.) The first wave of interviews took place with 566 women between 2001 and 2003; the original study was expanded to include a second wave of data collection from 2008 to 2011 at which time a total of 420 mothers were interviewed. In this article, we use data from the 450 adult children nested within 214 later-life families in which the adult children reported that their mothers needed assistance for a serious illness, injury, or disability at some point within 2 years prior to the T2 interview.

Procedures

Massachusetts city and town lists were used as the source of the original WFDS sample. With the assistance of the Center for Survey Research at the University of Massachusetts, Boston, the researchers drew a probability sample of women ages 65–75 with two or more children from the greater Boston area. The T1 sample consisted of 566 mothers, which represented 61% of those who were eligible for participation, a rate comparable with that of similar surveys in the 2000s (Wright & Marsden, 2010).

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 better educated and in better health at T1. Comparison of the T1 and T2 samples revealed that the respondents differed on subjective health, educational attainment, marital status, and race. Mothers who were not interviewed at T2 were less healthy, less educated, and less likely to have been married at T1; they were also more likely to be Black.

Following the interview, mothers were asked for contact information for their adult children; 81%

of the mothers provided contact informationa rate higher than typically found in studies of multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi, 1990). Seventy-five percent of the adult children for whom contact information was available agreed to participate, resulting in a final sample of 833 children nested within 277 families. Analyses comparing mothers with no participating children and mothers who had at least one participating child revealed no differences between these two groups in terms of race, marital status, education, age, or number of children, but that daughters, marrieds, and those with higher education were slightly more likely to participate, consistent with other studies with multiple generations (Kalmiin & Liefbroer, 2011: Rossi & Rossi, 1990).

The analytic sample for this article is composed of 450 adult children nested within 214 later-life families in which the adult children reported that their mothers needed assistance for a serious illness, injury, or disability at some point within 2 years prior to the T2 interview.

Table 1 presents demographic information for the adult children in this subsample.

Measures

Sibling Tension

To create the measure of sibling tension, we combined three items: (a) How often do your siblings create tensions/arguments with you? (b) How often do your siblings make too many demands on you? and (c) How often do your siblings criticize you? The response categories for the three variables were: very often (5), fairly often, sometimes, rarely, and

Table 1.	Description	of the	Variables
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	Mean, SD,	
Characteristics	% $(N = 450)$	
Employment (%)		
Employed	79.3	
Unemployed	20.7	
Sibling tension (SD)	6.1 (2.4)	
Total number of siblings in family (SD)	4.3 (2.0)	
Race (%)		
White	72.9	
Not white	26.2	
Age in years (SD)	49.6 (5.8)	
Marital status (%)		
Married	62	
Nonmarried	38	
Provided care to mom at T2	63.1	
Child perceived mother favored a child at T2	85.3	

never (1). The range of the sibling tension scale was 3-15 (M = 6.13; SD = 2.38); Cronbach's alpha = .76.

Independent Variables

To create the *caregiving* measure, we used the respondents' responses to a series of questions regarding whether, in the past 2 years, he or she had either provided care to the mother for a serious illness or injury, or whether she or he had helped the mother with activities of daily living (ADLs), including light housework, shopping, eating, or personal care. Each child was coded as: 0 = did not provide care within the past 2 years, or 1 = provided care for a recent illness or injury or provided help with ADLs in the past 2 years. More than one child in the family could be identified as providing care. Because the children are nested within families, we have used multilevel modeling, which takes into account the absence of independence between siblings within families and allows for one than one positive case at the family level.

To create the perceived parental favoritism measures, each offspring was asked the following question regarding their perceptions of their mothers' favoritism regarding future caregiving: "If your mother became ill or disabled, and needed help on a day-to-day basis, which of your siblings would your mother prefer help her?" Because previous research (Gilligan et al., in press; Suitor et al., 2009) has shown that the perception of any favoritism, rather than the particular pattern (e.g., mother preferred the respondent or another child), predicted sibling tension, we used the children's responses to create a dichotomous variable: 0 = child does not perceive mother as preferring any particular offspring as her future caregiver and 1 = child perceives that mother prefers either him/herself or another child as her caregiver. Approximately 14% (13.7) of the adult children did not perceive their mothers as preferring any offspring over others as future caregivers and 86% perceived that their mothers preferred particular children as their future caregivers (44% of the respondents perceived that the mothers preferred themselves and 42% perceived that their mothers preferred another offspring).

t-Tests were conducted comparing offspring who perceived that their mothers favored particular children as caregivers and those who did not. The groups did not differ by age, gender, educational attainment, parental status, or number of living siblings, although they did differ by mothers' health. Adult children who perceived that their mothers preferred particular offspring as caregivers were somewhat more likely to report that their mothers had limitations to their daily activities than were those who did not (64% vs 72%; p < .05).

Control Variables

Family Level Characteristics.-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 article included 149 mothers who identified themselves as White, 57 who identified as Black, 3 as Asian, 3 as Native American, 1 as Hispanic, and 1 as "other." 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. We measured family size by asking mothers for the names of each of their children at T1, and asking them to confirm this at T2.

Adult Child Characteristics.—Gender was coded 0 = son and 1 = daughter. Marital status was coded as married = 1 and not married = 0. Age at T2 was age at T1 plus 7 (the number of years between interviews).

Plan of Analysis

Because the adult children were nested within families, we used multilevel analyses, which accounts for nonindependence and allows for correlated error structure. The analyses were conducted using SPSS version 21. Listwise deletion was used to handle missing data because there were no more than 5% missing on any variable in the analysis (cf. Allison, 2010).

Results

As shown in Model 1 of Table 2, both having provided care to the mothers for a recent serious health event and perceiving that the mothers preferred a specific caregiver for future events predicted sibling tension. In fact, only one other variable predicted sibling tension—siblings perceived less tension when they were married than unmarried. Thus, our main effects hypotheses were supported in that both caregiving and perceiving that the mother preferred a particular child as her future caregiver were associated with high levels of sibling tension.

The findings presented in Model 2 of Table 2 also provide support for the hypothesis that the negative effects of caregiving on perceived sibling tension are exacerbated by perceptions of favoritism regarding care. As shown in the last row of Model 2, adult children reported greater tension with their siblings when they both provided care

	Model 1		Model 2	
Predictors	В	SE	b	SE
Family level characteristics				
Family size	09	0.07	10	0.07
Race (nonwhite)	.10	0.29	.08	0.29
Adult child characteristics				
Age	.01	0.02	.01	0.02
Daughter	15	0.21	15	0.21
Married	-1.10**	0.22	-1.08	0.22
Child recently provided care	.74**	0.22	36	0.57
Child perceives mother prefers a particular child as future caregiver	.60*	0.30	13	0.46
Child perceives mother prefers a particular child as future caregiver × recently provided care	—	_	1.29*	0.61
Log likelihood	1,958.973		1,953.718	
AIČ	1,962.973		1,957.718	
BIC	1,971.123		1,965.864	

Table 2. Mixed Model Results Predicting Sibling Tension (n = 450 Adult Children Nested Within 214 Families)

Notes: AIC = Akaike information criterion; BIC = Bayesian information criterion.

p < .05, p < .01.

to their mothers and perceived that their mothers preferred a particular child as her future caregiver.

To be certain that these findings were not affected by which child the sibling perceived that his or her mother preferred, we conducted a set of analyses in which we looked separately at whether the respondent perceived that he or she was preferred, or perceived that his or her sibling was preferred. Consistent with the analyses reported in Table 2, providing care to the mother and perceiving that the mother preferred a particular child were associated with higher sibling tension regardless of whether the respondent or another sibling was preferred. Further, the interactions for both "chose respondent" and "chose other siblings" indicated that greater sibling tension was present when adult children both provided care and perceived favoritism regarding future care regardless of which child was preferred. The differences between the effects of perceiving self versus another sibling were small and not significant. Thus, taken together, the pattern of findings was similar regardless of whether we measured favoritism using only whether the child perceived any favoritism, or whether we took into account whether the respondent perceived that she or he was chosen versus another sibling being chosen.

In sum, this set of analyses revealed that both providing care and perceiving favoritism regarding care were associated with sibling tension independently, and that the effects of caregiving on sibling tension were greater when perceptions of favoritism were also present.

Discussion and Conclusion

Studies of later-life families have demonstrated that serving as a caregiver to an older parent is a role that is often highly stressful and can exact a toll on physical and psychological well-being (Marks et al., 2008; Perkins et al., 2012; Pinguart & Sorensen, 2006). Similar to other demanding status transitions, detrimental consequences can be moderated by the provision of social support, as well as by the absence of conflict and criticism from significant role partners (Atienza & Stephens, 2000; Heru et al., 2004; Kang, 2006; Kwak et al., 2012). In the case of parental caregiving, siblings play a central role in these processes; however, they have been found to be a substantial source of stress as well as support (Connidis & Kemp, 2008; Davey & Szinovacz, 2008; Gentry, 2001; Ingersoll-Dayton et al., 2003; Lashewicz & Keating, 2009; Suitor & Pillemer, 1996). Given the significance of reducing stress to family caregivers, it is important to examine under what circumstances sibling relations are likely to be tense and conflictual. In this article, we shed new light on this question by exploring the ways in which caregiving and perceptions of maternal favoritism combine to increase sibling tension.

Our findings are consistent with prior research showing that tension is greater when mothers have care needs (Connidis & Kemp, 2008; Davey & Szinovacz, 2008; Gentry, 2001; Ingersoll-Dayton et al., 2003; Lashewicz & Keating, 2009). However, they go beyond previous studies by using a withinfamily approach that allowed us to compare sibling relationship quality as reported by the adult children providing care to that reported by noncaregiving offspring in the family. As we hypothesized, adult children who had provided care to their mothers for a recent health event reported notably higher tension with their siblings than did those who did not provide care. Based on recent findings that perceptions of parental favoritism predict sibling tension (Boll et al., 2003, 2005; Gilligan et al., in press; Suitor et al., 2009), we also hypothesized that caregiving siblings would report the greatest tension when they perceived that their mothers favored particular children as their future caregivers. This hypothesis was also confirmed by the multivariate analysis. These findings are similar to those of Khodyakov and Carr (2009) regarding the effect of advanced care planning on sibling relations. When adult children perceived that advanced directives had been problematic, they reported lower sibling relationship quality, whereas when parents selected someone besides the spouse or adult children as the durable power of attorney for health care, sibling relationship quality was higher.

It is noteworthy that the pattern of findings reported here were the same regardless of whether the adult children perceived that their mothers preferred them as caregivers or perceived that their mothers preferred other siblings. This finding is consistent with the literature on favoritism and sibling relations, both in childhood and adulthood, which has shown that perceptions of any favoritism, regardless of which child is favored, predict sibling relationship quality (Boll et al., 2003, 2005; Suitor et al., 2008, 2009). Further, studies of the effects of favoritism on psychological well-being have shown the same pattern across the life course (Pillemer, Suitor, Pardo, & Henderson, 2010; Suitor et al., 2008).

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Two important questions for future research are the roles that children's personality traits and early relations with siblings may play in both sibling interaction patterns in adulthood and mothers' preferences for care. Specifically, it is possible that in some cases, adult children have a long-standing history of difficult relations with their siblings and their mothers, thus affecting both favoritism regarding care and sibling tension decades later. Although this pattern cannot be ruled out, previous research (Suitor, Gilligan, & Pillemer, in press) has shown that mothers' preferences for care are shaped by perceptions of similarity, gender, and proximity, and are not predicted by offspring's present or previous difficult behaviors. However, it is possible that siblings' personalities or early childhood behaviors could affect current sibling tension. To address this question would require data on adult children's personality traits and behaviors in childhood, which are not available in the WFDS data set. Addressing these questions should be a priority in future research.

Taken together, the findings suggest that the experiences of adult children who provide care differ from those of their noncaregiving siblings regarding tension in their relationships. Further, the likelihood of tension among siblings when mothers have experienced a recent health event is greater when siblings perceive that their mothers prefer particular children as future caregivers, regardless of which child they prefer. Thus, the findings shed new light on the conditions under which siblings are more likely to experience high levels of tension when their parents encounter major health events and require care.

Implications for Practice

These findings have important implications for adult siblings who are confronting the need for parent care as well as practitioners working with later-life families. In particular, the results presented here support calls to acknowledge the complexity and multiperspectivity of later-life families and the degree to which they operate as systems (Fingerman & Bermann, 2000; Pillemer et al., 2007). Although the issue of favoritism has been studied extensively in younger families, only recently have researchers begun to explore the causes and consequences of this type of withinfamily differentiation among older parents and their adult children (Suitor et al., 2008). Further, only one study to our knowledge as examined the effects of favoritism in a caregiving context (Suitor et al., 2013). The present study demonstrates that perceptions of parental favoritism regarding care have a strong impact on sibling relations. Professionals who counsel adult child caregivers may find it useful to explore their perceptions of parental favoritism and how it affects family interactions and decision making.

Although we do not have definitive data to confirm this issue, responses to open-ended questions in this study suggest possible avenues for the effects of parental favoritism during caregiving. First, individuals who believe that they are the preferred caregivers can perceive that their efforts are underappreciated or criticized by siblings whom the mothers did not prefer as their caregivers. In fact, the caregivers in the present study reported this as one of their most common sources of frustration with their siblings. Second, siblings who perceive that they are not the preferred caregiver sometimes feel undervalued or disrespected by the mother. Indeed, previous research has shown that mothers reported that assistance from children whom they did not prefer as their caregivers often fell short of their expectations (Suitor et al., 2013). From a clinical perspective, exploring such feelings regarding the mother's choice of caregiver may be a fruitful topic when dealing with sibling relationships.

Consistent with this theme of complexity is the finding that caregivers experience sibling differently from noncaregiving relationships brothers and sisters. The fact that caregivers report substantially higher levels of tension than their siblings may constitute a form of "double jeopardy" for them. When parents require assistance, the caregiver's life becomes more stressful and demanding. It is precisely in this situation when having supportive and conflictfree relations with siblings is especially important, but caregivers' experience of greater conflict with siblings may exacerbate the already stressful situation. Awareness of this likely difference in experiences can be of use to clinicians engaged with families, acknowledging that noncaregiving siblings may experience the relationships as relatively harmonious, whereas the caregiver experiences them as stressful and tense.

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References

- AARP. (2011). When siblings disagree about what's best for mom and dad. Retrieved from http://www.aarp.org/relationships/caregiving-resourcecenter/info-12–2011/siblings-disagree-on-parents-care.html
- Allison, P. (2010). Missing data. In J. Wright & P. Marsden (Eds.), *Handbook of survey research* (pp. 631–658). Bingley, England: Emerald Group.
- Amato, P., Booth, A., Johnson, D. R., & Rogers, S. J. (2007). Alone together: How marriage in America is changing. Cambridge, MA: Harvard.
- Aquilino, W. S., Arnett, J. J., & Tanner, J. L. (2006). Family relationships and support systems in emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 193–217). Washington, DC: American Psychological Association.
- Atienza, A. A., & Stephens, M. A. P. (2000). Social interactions at work and the well-being of daughters involved in parent care. *Journal of Applied Gerontology*, 19, 243–263. doi:10.1177/073346480001900301
- Berman, C. (2005). Caring for yourself while caring for your aging parents: How to help, how to survive. New York: Henry Holt.
- Boll, T., Ferring, D., & Filipp, S. H. (2003). Perceived parental differential treatment in middle adulthood: Curvilinear relations with individuals' experienced relationship quality to sibling and parents. *Journal of Family Psychology*, 17, 472–487. doi:10.1037/0893-3200.17.4.472
- Boll, T., Ferring, D., & Filipp, S. H. (2005). Effects of parental differential treatment on relationship quality with siblings and parents: Justice evaluations as mediators. *Social Justice Research*, 18, 155–182. doi:10.1007/s11211-005-7367-2
- Bookwala, J. (2009). The impact of parent care on marital quality and well-being in adult daughters and sons. *Journal of Gerontology: Social Sciences*, 64, S339–S347. doi:10.1093/geronb/gbp018
- Conger, K. J., & Little, W. M. (2010). Sibling relationships during the transition to adulthood. *Child Development Perspectives*, 4, 87–94. doi:10.1111/j.1750-8606.2010.00123.x
- Connidis, I. A., & Kemp, C. L. (2008). Negotiating actual and anticipated parental support: Multiple sibling voices in three-generation families. *Journal of Aging Studies*, 22, 229–238. doi:10.1016/ j.jaging.2007.06.002
- Davey, A., & Szinovacz, M. E. (2008). Division of care among adult children. In M.E. Szinovacz & A. Davey (Eds.), *Caregiving contexts: Cultural, familial, and societal implications* (pp. 133–159). New York, NY: Springer.
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging & Human* Development, 51, 5–29. doi:10.2190/7TF8-WB3F-TMWG-TT3K
- Gentry, D. B. (2001). Resolving middle-age sibling conflict regarding parent care. Conflict Resolution Quarterly, 19, 31–47. doi:10.1002/ crq.3890190104
- Gilligan, M., Suitor, J. J., & Pillemer, K. (in press). Differential effects of mothers' and fathers' favoritism on sibling relations in adulthood. *Journal of Gerontology: Social Sciences*. Advance online publication. doi:10.1093/geronb/gbt039
- Heru, A. M., Ryan, C. E., & Iqbal, A. (2004). Family functioning in the caregivers of patients with dementia. *International Journal of Geriatric Psychiatry*, 19, 533–537. doi:10.1002/gps.1119
- Ingersoll-Dayton, B., Neal, M. B., Ha, J., & Hammer, L. B. (2003). Redressing inequity in parent care among siblings. *Journal of Marriage* and Family, 65, 201–212. doi:10.1111/j.1741-3737.2003.00201.x
- Kalmijn, M., & Liefbroer, A. C. (2011). Nonresponse of secondary respondents in multi-actor surveys: Determinants, consequences, and possible remedies. *Journal of Family Issues*, 32, 735–766. doi:10.1177/ 0192513X10390184
- Kang, S. Y. (2006). Predictors of emotional strain among spouse and adult child caregivers. *Journal of Gerontological Social Work*, 47, 107–131. doi:10.1300/J083v47n01_08
- Khodyakov, D., & Carr, D. (2009). The impact of late-life parental death on adult sibling relationships: Do parents' advance directives help or hurt? *Research on Aging*, 31, 495–519. doi:10.1177/ 0164027509337193
- Kwak, M., Ingersoll-Dayton, B., & Kim, J. (2012). Family conflict from the perspective of adult child caregivers: The influence of gender. *Journal*

of Social and Personal Relationships, 29, 470-487. doi:10.1177/0265407511431188

- Lashewicz, B., & Keating, N. (2009). Tensions among siblings in parent care. European Journal of Ageing, 6, 127–135. doi:10.1007/s10433-009-0109-9
- Marks, N. F., Lambert, J. D., Jun, H., & Song, J. (2008). Psychosocial moderators the effects of transitioning into filial caregiving on mental and physical health. *Research on Aging*, 30, 358–389. doi:10.1177/ 0164027507312998
- Okun, M., & Keith, V. M. (1998). Effects of positive and negative social exchanges with various sources on depressive symptoms in younger and older adults. *Journal of Gerontology: Social Sciences*, 53, S4–S20. doi:10.1093/geronb/53B.1.P4
- Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: An overview of concepts and their measures. *The Gerontologist*, 30, 583–594. doi:10.1093/geront/30.5.583
- Pearlin, L. I., Pioli, M. F., & McLaughlin, A. E. (2001). Caregiving by adult children: Involvement, role disruption, and health. In R.H. Binstock & L.K. George (Eds.), *Handbook of aging and the social sciences* (5th ed., pp. 238–254). San Diego, CA: Academic Press.
- Perkins, M., Howard, V. G., Wadley, V. G., Crowe, M., Safford, M. M., Haley, W. E., et al. (2012). Caregiving strain and all-cause mortality: Evidence from the REGARDS STUDY. *Journal of Gerontology: Psychological Sciences and Social Sciences*. doi:10.1093/geronb/gbs084
- Perry-Jenkins, M., Goldberg, A. E., Pierce, C. P., & Sayer, A. G. (2007). Shift work, role overload, and the transition to parenthood. *Journal* of Marriage and the Family, 69, 123–138. doi:10.1111/j.1741-3737.2006.00349.x
- Pillemer, K., Suitor, 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
- Pillemer, K., Suitor, J. J., Pardo, S., & Henderson, C., Jr. (2010). Mothers' differentiation and depressive symptoms among adult children. *Journal of Marriage and Family*, 72, 333–345. doi:10.1111/ j.1741-3737.2010.00703.x
- Pinquart, M., & Sorensen, S. (2006). Gender differences in caregiver stressors, social resources, and health: An updated meta-analysis. *Journal of Gerontology: Social Sciences*, 61, S33–S45.
- Robinson, B. E., Flowers, C., & Ng, K. (2006). The relationship between workaholism and marital disaffection: Husbands' perspective. *The Family Journal*, 14, 213–220. doi:10.1177/1066480706287269
- Rook, K. (1998). Investigating the positive and negative sides of personal relationships: Through a lens darkly? In B. H. Spitzberg & W. R. Cupach (Eds.), *The dark side of close relationships* (pp. 369–393). Mahwah, NJ: Erlbaum.
- Rossi, A. S., & Rossi, P. H. (1990). Of human bonding: Parent child relations across the life course. New York: Aldine de Gruyter.
- Roxburgh, S. (2012). Parental time pressures and depression among married dual-earner parents. *Journal of Family Issues*, 33, 1027–1053. doi:10.1177/0192513X11425324
- Russo, F. (2010, February 1). When elder care brings back sibling tensions. *Time Magazine*. Retrieved from http://www.time.com/time/magazine/ article/0,9171,1955601,00.html
- Schuster, T. L., Kessler, R. C., & Aseltine, R. H., Jr. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology*, 18, 423–438.
- Serido, J., Almeida, D. M., & Wethington, E. (2004). Chronic stressors and daily hassles: Unique and interactive relationships with psychological distress. *Journal of Health and Social Behavior*, 45, 17–33. doi:10.1177/ 002214650404500102
- Suitor, J. J., Gilligan, M., & Pillemer, K. (in press). Continuity and change in mothers' favoritism toward offspring in adulthood. *Journal of Marriage and Family*.
- 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., 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., Sechrist, J., Plikuhn, M., Pardo, S., Gilligan, M., & Pillemer, K. (2009). The role of perceived maternal favoritism in sibling relations in midlife. *Journal of Marriage & Family*, 71, 1026–1038. doi:10.1111/ j.1741-3737.2009.00650.x

- Suitor, J. J., Sechrist, J., Plikuhn, M., Pardo, S., & Pillemer, K. (2008). Within-family differences in parent-child relations across the life course. *Current Directions in Psychological Science*, 17, 334–338. doi:10.1111/j.1467-8721.2008.00601.x
- Tolkacheva, N., van Groenou, M. B., & van Tilburg, T. (2010). Sibling influence on care given by children to older parents. *Research on Aging*, 32, 739–759. doi:10.1177/0164027510383532
- Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family, and friends: Costs and benefits for men and women

in adulthood. Journal of Social and Personal Relationships, 17, 5-30. doi:10.1177/0265407500171001

- Walster, E. H., Walster, G. W., & Berscheid E. (1978). *Equity: Theory and research*. Boston: Allyn and Bacon.
- Wright, J. D., & Marsden, P. V. (2010). Survey research and social science: History, current practice, and future prospects. In V. Peter, D. Marsden, & J. Wright (Eds.), *Handbook of survey research* (pp. 3–26). Bingley, England: Emerald Group.