

Research Article

The Caregiver Identity in Context: Consequences of Identity Threat From Siblings

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Abstract

Objectives: Although siblings represent central members of the networks of caregivers and their parents, there has been limited attention to how siblings affect one another's well-being during caregiving. In this article, we draw from theories of identity and stress to examine the impact that siblings have on caregivers' psychological well-being. Specifically, we employ a mixed-methods approach to explore whether caregivers' perceptions that their siblings are critical of the care they provide their mother are associated with higher depressive symptoms and the mechanisms underlying this association.

Methods: Using quantitative data collected from 404 caregivers nested within 231 families as part of the Within-Family Differences Study, we conduct mediation analyses to examine whether perceived sibling criticisms are associated with caregivers' depressive symptoms (a) directly and/or (b) indirectly through sibling tension. We then analyze qualitative data collected from the same caregivers to gain insight into the processes underlying statistical associations.

Results: Quantitative analyses revealed that there was no direct relationship between perceived sibling criticisms and depressive symptoms; there was, however, an indirect relationship such that perceived sibling criticisms were associated with greater sibling tension, which in turn was associated with higher depressive symptoms. These quantitative findings were corroborated by qualitative analyses, which demonstrated that, in an effort to mitigate the negative impact of sibling criticisms, caregivers often employed strategies that may have fueled sibling tension.

Discussion: These findings demonstrate how identity processes, as well as the family networks in which caregiving takes place, shape the experiences and consequences of parent care.

Keywords: Caregiving, Family sociology, Mixed methods, Social networks, Social psychology

In their influential work on caregiving and the stress process, [Pearlin et al. \(1990\)](#) described caregiving as “potentially a fertile ground for persistent stress” (p. 583). They argued, however, that the impact of caregiving on mental health varies based on structural and contextual circumstances. In their conceptual model of caregiver stress, family context features heavily as a factor that could exacerbate or alleviate caregiver stress and, in turn, influence caregivers' psychological well-being. To date, however,

scholars have largely focused on how characteristics of the caregiver, care recipient, or the caregiver–care recipient dyad influence caregiver psychological well-being without considering the larger family networks in which this care takes place ([National Academies of Sciences, Engineering, and Medicine, 2016](#); [Pinquart & Sorensen, 2003](#)). In recent years, there has been a renewed call for research exploring how the impact of caregiving is shaped by the informal social networks in which caregivers and care recipients

are embedded (Koehly et al., 2015; Pillemer & Gilligan, 2018). Although siblings represent central members of the networks of caregivers (Antonucci et al., 2004; Bedford & Avioli, 2012), there has been limited attention to how siblings affect one another's well-being during caregiving.

Theories of identity maintenance and stress offer a valuable lens for identifying mechanisms through which siblings affect one another during caregiving. Although caregiving scholars have discussed identity processes as they apply to the caregiver identity, this work has largely focused on how the demands associated with being a caregiver, as well as changes in the nature and intensity of those demands, can threaten caregivers' self-concept (Pearlin et al., 1990) and make it more difficult to maintain other identities (Eifert et al., 2015; Montgomery & Kosloski, 2013), which in turn results in increased psychological distress (Montgomery & Kosloski, 2013; Savundranayagam & Montgomery, 2010). Absent from this discussion has been consideration of how important members of the care network, specifically siblings, might threaten caregivers' ability to maintain their caregiver identity, as well as the implications of this identity threat for caregivers' psychological well-being.

Drawing from theories of identity and stress, we examine the impact siblings have on caregivers' psychological well-being. Specifically, we employ a mixed-methods approach to explore whether caregivers' perceptions that their siblings are critical of their performance of the caregiver identity are associated with higher depressive symptoms, as well as the mechanisms underlying this association. Using data collected from 404 caregivers nested within 231 families as part of the Within-Family Differences Study (WFDS), we conduct mediation analyses to examine whether perceived sibling criticisms are associated with caregivers' depressive symptoms (a) directly and/or (b) indirectly through sibling tension. We then analyze qualitative data collected from the same caregivers to gain insight into the processes underlying the associations (or lack of associations) between perceived sibling criticisms, sibling tension, and depressive symptoms.

Identities and Well-Being

The identities we hold can represent an important source of purpose, self-worth, and self-esteem (McCall & Simmons, 1966; Stets & Burke, 2014; Thoits, 2012). Scholars have cautioned, however, that an identity may be detrimental to well-being when individuals perceive they are not satisfactorily fulfilling the expectations associated with that identity (McCall & Simmons, 1966; Stets, 2018). According to theories of identity maintenance, in order to accrue the benefits of a given identity (i.e., purpose and self-esteem), individuals seek verification that their performance of the identity reflects the expectations that they hold for themselves in that identity, or their "identity standard." Others' feedback plays a central role in this verification process. Individuals analyze others' reactions to their behavior in order to evaluate how well they perform an identity. If,

based on others' reactions, an individual perceives that their performance of an identity is not compatible with their standard for themselves in that identity, then their ability to verify that identity is threatened. Consequently, they may experience psychological distress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013). It is important to note that, according to identity theorists, it is *perceptions* of negative evaluations from others, not necessarily actual negative evaluations from others, that threaten individuals' abilities to verify identities and, in turn, threaten their psychological well-being. Although in some cases individuals' perceptions of others' evaluations may align closely with others' actual evaluations, in other cases, individuals may overestimate or underestimate others' criticisms (McCall & Simmons, 1966; Stets, 2018).

Individuals may employ a number of strategies to maintain their identity and protect their psychological well-being despite perceived nonverifying feedback. They may attempt to rationalize their performance, referring to extenuating circumstances or blaming others. They may disparage the source of the feedback, casting doubt on the validity or relevance of his or her evaluation. Additionally, individuals may withdraw from interactions or relationships with others who are the sources of these identity threats (McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020). Although such strategies may be effective for maintaining one's identity, this benefit may come at the cost of damaging relationships with network members who are the sources of threatening feedback.

Consequences of Caregiving Through the Lens of Identity Theory

Theories of identity and stress offer valuable insights into how the networks in which caregivers are embedded may affect their psychological well-being. Being a caregiver can represent a source of purpose and self-esteem (Aneshensel et al., 1995; Lloyd et al., 2016; Tarlow et al., 2004), which in turn has positive implications for caregiver health and well-being (Cohen et al., 2002; Lamont et al., 2019; Polenick et al., 2018). However, the extent to which adult children are able to derive a sense of purpose and meaning from their caregiver identity depends on whether they perceive that they are satisfying the expectations that they have for themselves as a caregiver. In order to verify that their caregiver performance is consistent with these expectations, caregivers assess others' reactions to their performance. Given that siblings represent important members of caregivers' and their parents' social networks (Antonucci et al., 2004; Bedford & Avioli, 2012), siblings' feedback is likely to be deemed highly relevant to adult children's assessment of their caregiver performance.

Research suggests that individuals derive a sense of purpose and self-esteem from caregiving when they are able to identify as "good caregivers" (Aneshensel et al., 1995). Although adult children may have different standards for what it means to be a good caregiver, if they perceive that their siblings are

critical of their caregiver performance, they have, in essence, perceived feedback from siblings that, in some aspect or at some point, they were not being “good caregivers.” In light of this feedback, adult children may have a more difficult time maintaining that they are a good caregiver and, as a result, experience psychological distress. Consequently, we hypothesize that adult children who perceive that their siblings are critical of their performance of their caregiver identity will report higher depressive symptoms.

However, based on identity theory (McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020), we propose that adult children may employ strategies to maintain their identity as a good caregiver despite siblings’ critical feedback. In order to more easily discount the feedback, caregivers may discredit their siblings’ perspectives or blame their siblings for their lackluster caregiver performances. Caregivers may also distance themselves from siblings who challenge their caregiver identity to limit their exposure to critical feedback. Although these strategies may allow adult children to maintain their identity as a good caregiver, we expect that they will be associated with greater conflict in caregivers’ sibling relationships.

Ironically, in an effort to limit the discomfort associated with siblings’ critical feedback and protect their caregiver identity, adult children may expose themselves to another source of psychological distress. As part of the caregiving stress process model, Pearlin et al. (1990) described family conflict as a “secondary stressor,” or an indirect consequence of caregiving demands that exacerbates the psychological consequences of caregiving. Indeed, empirical research shows that among adult children, sibling tension has been associated with worse psychological outcomes (Cicirelli, 1989; Gilligan et al., 2017; Paul, 1997; Stocker et al., 2020), including within the context of parent care (Strawbridge & Wallhagen, 1991; Sutor et al., 2018). Thus, in an effort to cope with siblings’ criticisms, caregivers may employ strategies that fuel tension in their sibling relationships, which in turn may increase depressive symptoms. Based on this logic, we hypothesize that perceived sibling criticism will also be associated with caregivers’ depressive symptoms indirectly through sibling tension; in particular, perceived sibling criticisms will be associated with higher sibling tension, which will in turn be associated with caregivers’ higher depressive symptoms.

Other Factors Affecting Sibling Tension and Psychological Well-Being

Several factors have been shown to be associated with depressive symptoms and/or sibling tension; thus, we have included them as controls throughout the analysis. These factors include gender, age, marital status, parental status, employment status, and self-rated physical health (Clarke et al., 2011; Connidis & Campbell, 1995; Schieman & Galvin, 2011; Sutor et al., 2018). In addition, given research suggesting that coresiding caregivers experience greater

caregiver burden than noncoresiding caregivers (Pristavec, 2019), we control for whether caregivers coreside with their mother. According to the caregiving stress process model, social support can ameliorate the stress associated with caregiving (Pearlin et al., 1990); consequently, we also include perceived support from siblings as a covariate. In light of theoretical work suggesting identity threat is more consequential when the identity is more salient to the individual (Burke, 1991), we also control for whether children identified as primary or secondary caregivers for their mother relative to their siblings. Finally, scholars have identified the size and gender composition of a sibship as important variables to consider when examining patterns and consequences of family caregiving (Henretta et al., 2011; Matthews, 2002); thus, we control for both family characteristics in the quantitative analyses.

Summary

Drawing from theories of identity and stress, we hypothesize that adult children who perceive that their siblings are critical of their caregiver performance will report higher depressive symptoms. As outlined in Figure 1, we propose two mechanisms underlying this association. First, we hypothesize that perceived sibling criticisms will be directly associated with depressive symptoms. Specifically, because perceived sibling criticisms threaten an adult child’s ability to maintain their identity as a good caregiver, these criticisms will be associated with higher depressive symptoms. Second, we hypothesize that perceived sibling criticisms will be indirectly associated with depressive symptoms through sibling tension. In particular, in response to perceived sibling criticisms, caregivers will employ coping strategies that fuel sibling tension, and higher sibling tension will be associated with higher depressive symptoms. To test these hypotheses, we will utilize quantitative data from 404 caregivers nested within 231 families collected as part of the WFDS. To shed light on the processes underlying statistical associations,

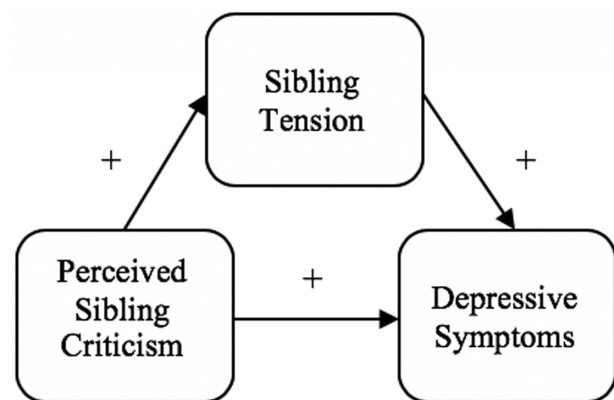


Figure 1. Hypothesized relationships between perceived sibling criticism, sibling tension, and depressive symptoms.

we will analyze qualitative data from the same sample of caregivers.

Method

Procedures

For both the quantitative and qualitative analyses, we use data collected as part of the WFDS. The design of the study involved selecting a probability sample of community-dwelling mothers 65–75 years of age with at least two living children. Mothers and their adult children were interviewed between 2001 and 2003; from 2008 to 2011, the original study was expanded to include a second wave of data collection. (For a detailed description of the study design, see <https://web.ics.purdue.edu/~jsuitor/within-family-differences-study/> or the works of Suitor et al., 2013 and Suitor et al., 2018, where portions of this section have been published previously.)

The T1 sample consisted of 566 mothers, which represented 61% of those eligible for participation, a rate comparable to that of similar surveys in the past decade (Dixon & Tucker, 2010). Approximately 63% of the mothers agreed to provide contact information for their children; approximately 70% of those children agreed to participate, resulting in a sample of 774 children. Consistent with other studies of multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi 1990), daughters, married children, employed children, and those with higher education were slightly more likely to participate. Children with fewer disagreements with their mother were also more likely to participate.

Data collection for the second wave of the study occurred between 2008 and 2011. The survey team attempted to contact each mother who participated in the original study. At T2, 420 mothers were interviewed, representing 86% of mothers living at T2. Comparison of the T1 and T2 samples revealed mothers who died between waves were less healthy, less educated, less likely to have been married at T1, and more likely to be black. Comparisons between the mothers alive at T2 who did and did not participate revealed that they differed on only education and subjective health.

At T2, 81% of mothers provided contact information for their children—a rate higher than typically found in studies of multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi, 1990). In cases in which the mother was not interviewed at T2, information from T1 was used to contact children at T2. Seventy-five percent of the children for whom contact information was available agreed to participate, resulting in a final sample of 826 children nested within 360 families. Daughters, marrieds, and those with higher education were slightly more likely to participate, consistent with other studies with multiple generations (Kalmijn & Liefbroer, 2011; Rossi & Rossi, 1990).

As part of the study, adult children were asked closed and open-ended questions related to their mothers' care and sibling relationships. Almost all of the interviews were taped and later transcribed. In the few cases in which the interviews were not taped, interviewers took extensive field notes. All of the tapes and field notes were transcribed in the format of the interview schedule. Thus, each transcript includes all of the responses to open-ended and closed-ended questions within each section, allowing us to contextualize the qualitative data.

Analytic Sample

To be included in the analytic sample, adult children had to meet the following criteria. The sample was restricted to only adult children who reported at T2 that they had provided their mother assistance with at least one Instrumental Activity of Daily Living (IADL) or Activity of Daily Living (ADL; i.e., light housework, transportation, food shopping, dressing, eating, bathing, and toileting) or for a serious illness or injury in the past 5 years. In order to examine the implications of perceived sibling criticisms, caregivers had to have at least one living sibling at T2. Four hundred and eight caregivers nested in 231 families met these criteria. Of these caregivers, four were missing data on a key variable in the analysis; thus, the final analytic sample comprises 404 caregivers nested within 231 families.

Measures

Dependent variable

The dependent variable for the quantitative analysis is caregivers' *depressive symptoms* at T2. To measure depressive symptoms, we used the 7-item version of the Center for Epidemiological Studies Depression (CES-D) scale (Ross & Mirowsky, 1988). As part of the CES-D, respondents were asked how many days in the past week they felt that: (a) Everything I did was an effort; (b) I had trouble getting to sleep or staying asleep; (c) I felt lonely; (d) I felt sad; (e) I could not get going; (f) I felt I could not shake off the blues; and (g) I had trouble keeping my mind on what I was doing. The response categories for the seven items were 1 = less than 1 day, 2 = 1–2 days, 3 = 3–4 days, or 4 = 5–7 days. Responses for each item were summed to create a scale that ranged from 7 to 28, with higher scores signifying higher levels of depressive symptoms (mean = 11.69; *SD* = 4.65; Cronbach's α = 0.85).

Independent variable

The focal independent variable for this analysis is *perceived sibling criticism* at T2. To measure perceived sibling criticism, caregivers were asked: Has your sibling/ Have any of your siblings ever been critical of the ways in which you help your mother, including how you help or the amount of time you spend helping? 1 = caregiver

perceives that at least one sibling is critical; 0 = caregiver perceives that none of their siblings is critical. Consistent with identity theory principles suggesting that individuals assess their identity performance based on their perceptions of others' evaluations (McCall & Simmons, 1966; Stets, 2018), we selected a measure that captures perceived sibling criticism, rather than siblings' actual criticisms. Although we argue that the dichotomous measure gives valuable insight into whether caregivers have to some extent perceived negative feedback from siblings regarding their caregiver performance, we acknowledge that there are other ways of operationalizing perceived sibling criticism; notably, caregivers could have been asked to rate the extent to which they perceive that their siblings are critical of the care that they provide their mother. The dichotomous measure, however, was the only measure of perceived sibling criticism available in the WFDS. Future research should explore alternative operationalizations of perceived sibling criticism that distinguish the degree to which caregivers perceive that their siblings are critical of their caregiver performance.

Mediating variable

Sibling tension was measured using the following item: How often do your siblings create tensions/arguments with you? The response categories were 1 = never, 2 = rarely, 3 = sometimes, 4 = fairly often, or 5 = very often. Although we acknowledge that multi-item scales are generally preferable, single-item measures of relationship quality have commonly been utilized in studies of family relationships, including studies of adult siblings (Connidis & Campbell, 1995; Spitze & Trent, 2006; Sutor et al., 2009).

Covariates

Child-level covariates.—For *caregiver status*, respondents were coded as secondary caregivers (0) if they reported they provided their mother assistance for an illness or injury or with ADLs/IADLs, but they did not provide as much assistance as one or more of their siblings. Respondents were coded as primary caregivers (1) if they reported that they helped their mother the most or were tied with one or more of their siblings for providing their mother with the most assistance for an illness or injury or for the most ADL/IADL tasks. *Perceived support from siblings* was measured using the following item: Has your sibling/Have any of your siblings ever been especially supportive of the ways in which you help your mother? 1 = caregiver perceives that at least one sibling has been especially supportive; 0 = caregiver perceives that no siblings have been especially supportive. *Gender* was coded 1 = daughter and 0 = son. *Age* was measured as adult children's age in years at T2. *Marital status* was coded as 1 = married and 0 = not married. *Parental status* was measured using respondents' reports of whether they had any children, 1 = parent and

0 = nonparent. *Employment status* was measured using respondents' reports of whether they were currently working at a job for pay, 1 = employed and 0 = unemployed. *Coresidential status* was measured based on respondents' reports of whether they were living with their mothers, 1 = coresiding with mother and 0 = not coresiding with mother. To measure *self-rated physical health*, respondents were asked to rate their physical health as (5) excellent, (4) very good, (3) good, (2) fair, or (1) poor.

Family-level covariates.—*Family size* was measured as the number of living adult children in the family at T2. *Gender composition of the sibship* was measured as the proportion of daughters in the family.

Of the 404 caregivers, approximately 15% (60 caregivers) perceived that at least one of their siblings was critical of the care that they provided their mothers, and approximately 67% (270 caregivers) perceived that at least one of their siblings was supportive of the ways in which they helped their mothers. Pearson's chi-squared test revealed that perceiving sibling criticism was negatively associated with perceiving sibling support ($\chi^2 = 7.31, p < .01$). Although caregivers who perceived sibling criticism were less likely to report sibling support, it is important to note that more than half (52%) of caregivers who perceived sibling criticism also perceived sibling support. Additional descriptive statistics for the 404 caregivers and the 231 families in which they are nested are presented in Table 1.

Analytic Strategy

Mixed-methods research has been acclaimed for its ability to provide a richer, more nuanced understanding of social patterns and processes (Creswell & Plano Clark, 2017). Utilizing both quantitative and qualitative data from the

Table 1. Descriptive Statistics (N = 404 caregivers nested within 231 families)

| | |
|----------------------------------|--------------|
| <i>Caregiver level</i> | N = 404 |
| Depressive symptoms (M, SD) | 11.69 (4.65) |
| Sibling tension (M, SD) | 2.16 (0.95) |
| Perceived sibling critical (%) | 14.85 |
| Perceived sibling supportive (%) | 66.83 |
| Primary caregiver (%) | 46.29 |
| Daughter (%) | 62.38 |
| Married (%) | 73.27 |
| Parent (%) | 78.71 |
| Employed (%) | 80.20 |
| Coreside (%) | 11.14 |
| Age (M, SD) | 49.52 (5.86) |
| Self-reported health (M, SD) | 3.77 (1.07) |
| <i>Family characteristics</i> | N = 231 |
| Sibship size (M, SD) | 3.86 (1.68) |
| Proportion daughters (M, SD) | 0.51 (0.28) |

WFDS, we employ a mixed-methods approach to explore not only the consequences of perceived criticism from siblings on depressive symptoms, but also the mechanisms underlying these processes.

Quantitative analysis

The aim of the quantitative analysis is to examine whether perceived sibling criticisms are associated with depressive symptoms (a) directly and/or (b) indirectly through sibling tension. To accomplish this aim, we conducted mediation analyses with sibling tension as a mediator between perceived sibling criticisms and depressive symptoms. Given that we are relying on the reports of multiple caregivers within families, the observations for this analysis are not independent. To account for this nested data structure, we used the “lme4” package in R to estimate the linear mixed-effects models (Bates et al., 2015). We then utilized the “Mediation” package in R (Tingley et al., 2014) to estimate the direct and indirect associations. To determine the significance of the direct association and indirect association, we used a quasi-Bayesian Monte-Carlo simulation with 1,000 iterations. All data for the analyses were collected at T2 of the WFDS. Listwise deletion was used to handle missing data because there were less than 1% missing on any variable in the analysis (Allison, 2010).

Qualitative analysis

The aim of the qualitative analysis was to identify patterns in caregivers’ qualitative responses that shed light on the processes underlying the associations identified in the quantitative analyses. One set of questions that was particularly useful for the qualitative analysis was “Has your sibling/Have any of your siblings ever been critical of the ways in which you help your mother, including how you help or the amount of time you spend helping?” If adult children responded yes, then they were asked “Can you tell me a little about what your sibling has/they have said or done?” These descriptions proved useful in helping to understand adult children’s perceptions of their siblings’ feedback, as well as to gain insight into adult children’s reactions to this feedback. However, we also examined the full transcripts of the interviews with each caregiver, taking into consideration their responses to other open-ended questions and any other relevant comments made throughout the interviews. This approach gave important context to caregivers’ responses. Furthermore, it ensured that the qualitative analysis was not too directed and that unexpected themes were allowed to emerge.

To develop codes and analyze the qualitative data, we employed the “immersion/crystallization” method (Borkan, 1999). We began by immersing ourselves in the data, reading through the full transcripts for the caregivers who perceived that their siblings were critical of the care they provided their mother. Codes were not established prior to the immersion process; rather, during this stage, we identified patterns that emerged from the transcripts. In the

crystallization stage, we reflected on the emergent patterns in light of the quantitative findings as well as theories of identity and stress. Identity theories describing strategies for mitigating the effects of identity threat proved to be particularly useful for making sense of the emergent patterns. As a result of this reflection, we developed a more focused set of codes based on emergent patterns that appeared to be the most theoretically relevant. We continued to refine the codes through this iterative process of immersion and crystallization until no new themes emerged and the authors reached a consensus regarding all coding decisions. See [Supplementary Table 1](#) for the finalized list and descriptions of the codes used in the qualitative analysis. All names presented are pseudonyms.

Results

Quantitative Findings

As displayed in [Table 2](#), perceived sibling criticism was not directly associated with caregivers’ depressive symptoms; however, perceived sibling criticism was indirectly associated with caregivers’ depressive symptoms through sibling tension ($B = 0.51, p < .05$). As shown in [Figure 2](#), perceived sibling criticism was associated with higher sibling tension ($B = 0.83, p < .001$), and higher sibling tension was associated with higher depressive symptoms ($B = 0.61, p < .05$).

Qualitative Findings

Informed by the quantitative findings, we analyzed caregivers’ qualitative responses to gain insight into why perceived sibling criticisms were not directly associated with depressive symptoms, but rather operated through sibling tension. Based on caregivers’ qualitative responses, most caregivers (98%) employed psychological and behavioral strategies to either invalidate their siblings’ criticisms or limit the impact of these criticisms on their psychological well-being. We identified six main strategies that caregivers employed to cope with these criticisms, either alone or in combination. Specifically, caregivers (a) criticized their siblings’ caregiver performances (67%), (b) identified positive

Table 2. Formal Test of the Direct and Indirect Effects of Perceived Sibling Criticisms on Depressive Symptoms ($N = 404$ caregivers nested within 231 families)

| | <i>B</i> | 95% CI |
|-----------------|----------|---------------|
| Indirect effect | 0.51* | 0.09 to 0.97 |
| Direct effect | -0.04 | -1.37 to 1.32 |
| Total effect | 0.48 | -0.80 to 1.71 |

Note. CI = confidence interval. Unstandardized coefficients with fully adjusted multilevel linear regression models.

* $p < .05$; ** $p < .01$; *** $p < .001$.

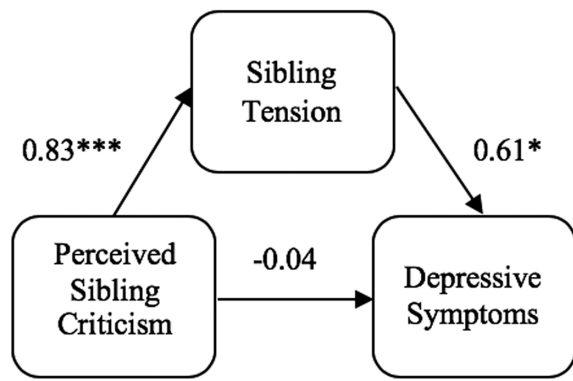


Figure 2. Direct and indirect effects of perceived sibling criticism on depressive symptoms ($N = 404$ caregivers nested within 231 families). *Note:* Unstandardized coefficients with fully adjusted multilevel linear regression models. * $p < .05$; ** $p < .01$; *** $p < .001$.

feedback regarding their caregiver performance (53%), (c) disparaged the perspectives of siblings who they perceived to be critical (28%), (d) emphasized that the criticisms were normative or not severe (28%), (e) asserted that their caregiver performance was reasonable given extenuating circumstances (22%), and (f) withdrew from interactions with their critical siblings (5%). Although these strategies may have enabled caregivers to maintain their identities as “good caregivers,” many of these strategies also had the potential to fuel tension with siblings. In the following sections, we focus on the two strategies that seemed the most consequential for sibling relationships: criticizing siblings’ caregiver performances and disparaging the perspectives of critical siblings. Forty-three of the 60 caregivers who perceived that their siblings were critical of their caregiver performance (72%) utilized at least one of these two strategies.

Criticized siblings’ caregiving performances

Forty of the 60 caregivers who perceived that their siblings were critical of their caregiver performance (about 67%), in turn, criticized some aspect of their siblings’ caregiver performances. In 17 cases, caregivers’ criticisms appeared to be a direct rebuttal to their siblings’ criticisms. In response to their siblings’ criticisms that they were being too accommodating or overprotective of their mother, some caregivers criticized their siblings for not being sufficiently attentive to their mother’s needs. For example, in response to her sister’s criticism that “I baby [our mother] too much,” one caregiver maintained, “I just feel like my sister can be pretty cold.” Caregivers who reported that their siblings’ felt that they were not providing enough care also criticized their siblings’ approach to care. For example, Diana noted that she and her sister had arguments, “About me not helping enough.” Diana indicated, however, that she does not provide too little care, but rather that her sister provides too much care, maintaining:

She, uh, enables her—enables my mother not to do things for herself.

By refuting their siblings’ criticisms in this way, caregivers suggested that they did not agree with their siblings’ standards for being a “good caregiver.” By embracing a different standard of what it means to be a good caregiver, caregivers may be better able to refute their siblings’ criticisms or even utilize these criticisms as evidence that they are meeting their own caregiver standards. These disagreements over what it means to be a good caregiver, however, may translate into increased sibling tension.

Not all caregivers’ criticisms of their siblings appeared to be motivated by wanting to directly refute what they perceived to be their siblings’ criticisms of their caregiver performance. Notably, in response to perceived criticisms from siblings that they provided too much or too little care, caregivers often criticized the manner in which their siblings provided care. For example, one caregiver stated that he was “not crazy about the way my brother takes care of her ... He’s occasionally abusive, doesn’t talk to her, doesn’t answer her questions.” Another was critical that her sister had a “short temper” with her mother.

Oftentimes, caregivers would phrase these criticisms such that they were able to draw a contrast between their siblings’ caregiver performances and their own caregiver performance. For example, when describing why they perceived that they were their mother’s preferred caregiver, one caregiver maintained he was “less hard on her than either of my siblings” and another explained that, “I don’t judge her or make her feel bad.” Even though these criticisms did not directly refute siblings’ criticisms, they highlighted ways in which caregivers felt that their caregiver performance was superior to their siblings’ caregiver performances. Caregivers may draw upon these contrasts as evidence that they are a good caregiver, at least relative to their siblings. Criticizing their siblings, however, may have negative implications for their sibling relationships.

Disparaging the source of the criticism

Another strategy that caregivers utilized to discount their siblings’ criticisms was to question the legitimacy of these criticisms; 17 of the 60 caregivers (28%) who perceived that their siblings were critical of their caregiver performance utilized this strategy. Frequently, the caregivers maintained that the criticism was motivated by siblings’ desires to compensate for their own inadequacies as a caregiver. For example, when asked to explain what his brother had said or done to make Keith perceive that he was critical of Keith’s care performance, Keith replied:

He’s jealous and he would like to participate more and he’s jealous that I do I think he’s disappointed that he’s not more of the oldest son. My mom doesn’t defer to him or request his information or, uh, hold his position higher than everybody else. He hasn’t made his

own effort to encourage the relationship any more than before.

When asked the same question, a caregiver from a different family, Peter, explained:

Um (laughs) They uh, I guess in general it's a manner of their contention that my mother comes to me for all important decisions and they're left out. That's basically it, I guess.

Another strategy that caregivers utilized to discount the validity of their siblings' criticisms was to point out the hypocritical nature of the criticisms. For example, when describing his siblings' criticisms, Michael explained:

Uh, yeah, they are critical, I think they're more critical about the time that we spend together as opposed to what I do. You know like, so they swear up and down that I am monopolizing her time or she is monopolizing mine but yet they don't give anytime themselves so.

Another caregiver dismissed her siblings' criticisms saying:

I said shut up if they're not going to do anything more themselves. (laughs). Is that critical enough for you?

These explanations demonstrate that some caregivers are able to discount sibling criticisms by maintaining that their siblings' criticisms are not indicative of the caregiver's own shortcomings, but rather are indicative of the siblings' insecurities and inadequacies as a caregiver. Although discounting siblings' criticisms in this way may have allowed caregivers to maintain their identity as a good caregiver, it is possible that disparaging their siblings' perspectives and care contributions could fuel sibling tension.

Ad hoc analyses

Given theoretical work suggesting identity threat is more consequential when the identity is more salient to the individual (Burke, 1991), we decided to also explore whether this pattern of findings varied depending on whether the caregiver identified as a primary or secondary caregiver for their mother. To do so, we conducted a moderated mediation analysis using the "lme4" (Bates et al., 2015) and "Mediation" (Tingley et al., 2014) packages in R, testing the differences between the estimated indirect and direct effects for primary and secondary caregivers. Findings revealed that there were no significant differences between the direct and indirect effects for primary and secondary caregivers. Ad hoc analyses of the qualitative data also revealed no systematic differences in the strategies that primary and secondary caregivers employed to cope with perceived sibling criticisms.

Discussion

When outlining the caregiver stress process model, Pearlin et al. (1990) described family context as an important

factor that might mitigate or compound the stresses and psychological consequences of caregiving. Although siblings represent central members of caregivers' social networks (Antonucci et al., 2004; Bedford & Avioli, 2012), there has been limited attention to how siblings affect one another's well-being during caregiving. In this article, we explored how caregivers' psychological well-being is influenced by the sibling networks in which they are embedded. In particular, we examined whether caregivers' perceptions that their siblings are critical of the care that they provide their mother are associated with higher depressive symptoms. Drawing from theories of identity and stress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013), we expected that perceived sibling criticisms would threaten an adult child's ability to maintain their identity as a "good caregiver," which would be psychologically distressing for caregivers. Thus, we hypothesized that perceived sibling criticisms would be associated with higher depressive symptoms. Based on work outlining strategies that individuals employ to mitigate the effects of identity threat (McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020), we proposed that perceived sibling criticisms may also be associated with depressive symptoms indirectly through sibling tension. In particular, in an effort to maintain their identity as a good caregiver, caregivers might employ strategies that fuel tension with their siblings. Based on both conceptual arguments (Pearlin et al., 1990) and empirical evidence (Strawbridge & Wallhagen, 1991; Suito et al., 2018) suggesting family conflict is a secondary stressor that exacerbates caregivers' psychological distress, we expected that higher sibling tension would be associated with higher depressive symptoms.

Quantitative analyses suggested that perceiving that your siblings were critical of the care that you provided your mother had implications for caregiver depressive symptoms. As hypothesized, mediation analyses suggested that sibling tension is a mechanism through which perceived sibling criticisms are associated with caregivers' depressive symptoms. In other words, adult children who perceived that their siblings were critical of their caregiver performance reported higher sibling tension, and caregivers who reported higher sibling tension reported higher depressive symptoms. Contrary to our expectations, however, perceived sibling criticisms were not directly associated with depressive symptoms. To better understand the processes underlying these statistical associations, we turned to caregivers' qualitative responses, examining caregivers' understanding of and reactions to their siblings' perceived criticisms.

Identity theorists have long theorized that individuals may employ strategies to maintain an identity in the face of feedback that does not support that identity, allowing them to alleviate or avoid psychological distress (McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020). Consistent with these theories, qualitative analyses revealed that the vast majority (98%) of caregivers who perceived their

siblings were critical of the care they provided their mother made an effort to maintain their identity as a good caregiver despite these perceived criticisms. However, in an attempt to defend their caregiver identity, many caregivers utilized strategies that could be detrimental for their sibling relationships.

A common strategy that caregivers used to maintain their identity as a good caregiver was to criticize aspects of siblings' caregiver performances. When criticizing the care that their siblings provided their mother, caregivers would often highlight ways in which the care they provided was superior to the care their siblings provided. Caregivers could then use these comparisons as evidence that they were a good caregiver. Furthermore, a number of caregivers offered criticisms suggesting that they disagreed with their siblings' standards for being a "good caregiver," instead endorsing a caregiver standard that more closely reflected their own caregiver performance. This allowed caregivers to better maintain their identity as a good caregiver despite sibling criticisms and even utilize sibling criticisms as evidence that they were in fact being a good caregiver. This finding is consistent with the identity maintenance theory principle that feedback regarding one's identity performance is only distressing when it is not consistent with one's expectations for oneself in that identity (Burke, 1991; Stets, 2018; Stets & Serpe, 2013). Furthermore, this finding suggests that one strategy for coping with sibling criticisms may be to strategically embrace a caregiver standard that corresponds with one's caregiver performance. Although challenging their siblings' caregiver performance and identity standard may have enabled caregivers to maintain their identity as a good caregiver, it may also have fueled sibling tension.

A number of the caregivers who perceived that their siblings were critical of the care they provided their mother reacted by disparaging their siblings' perspectives. Some caregivers discounted their siblings' feedback by arguing that their siblings' criticisms were not actually indicative of their performance, but rather were motivated by their siblings' desires to compensate for their own inadequacies. Others dismissed their siblings' perspectives by claiming that their siblings did not have the authority to offer criticisms given their own inferior caregiver performance. This finding is consistent with theoretical work suggesting that, in an effort to maintain their identity, individuals may discount the critical feedback of those they perceive to be "incompetent to evaluate him [her]" (McCall & Simmons, 1966, p. 100). Although discounting siblings' criticisms in this way may be protective for adult children's caregiver identity, it is possible that disparaging their siblings' perspectives could fuel sibling tension.

These findings highlight the importance of considering how the sibling networks in which caregivers are embedded shape their psychological well-being. In particular, they suggest that caregivers' perceptions regarding whether their siblings are critical of their caregiver performance have

consequences for their sibling relationships and, in turn, their depressive symptoms. These results are consistent with Pearlman et al.'s (1990) conceptualization of family conflict as a "secondary stressor," or an indirect consequence of caregiving demands that can magnify the psychological toll of parent care.

This research also provides insights that could be utilized to develop interventions to reduce sibling tension, and in turn psychological distress, during caregiving. A sizeable portion of caregivers who perceived that their siblings were critical responded by criticizing their siblings' caregiver performances and disparaging their siblings' perspectives—behaviors that could fuel sibling tension. Drawing from identity theory, we argue that these reactions to perceived sibling criticisms could be motivated by caregivers' desires to defend their identity as a good caregiver. Our findings suggest, however, that there are other strategies that caregivers may employ that could allow them to maintain their identity as a good caregiver without increasing sibling tension and depressive symptoms. One strategy that seems particularly promising, and that was employed by about half of the caregivers, was to identify positive feedback regarding their caregiver performance. In some cases, this positive feedback came from alternate sources, notably, mothers and other siblings. In other instances, this positive feedback came from critical siblings themselves regarding a different aspect of care or care event. By identifying feedback that was supportive of their identity as a good caregiver, adult children may be better able to simultaneously maintain their identity as a good caregiver, avoid escalating sibling tension, and protect their psychological well-being. Future research should explore whether interventions that facilitate caregivers' ability to identify sources or instances of positive feedback regarding their caregiver performance have positive implications for caregivers' sibling relationships and well-being. In addition, scholars should design and evaluate interventions that encourage adult children to be more vocal about the positive aspects of their siblings' caregiver performances.

In this article, we examine the consequences of *perceived* sibling criticisms for caregivers' sibling relationships and psychological well-being. This decision to focus on caregivers' perceptions is consistent with theories of identity and stress, which assert that others' reactions to one's identity performance are filtered through one's own perceptions, and it is those perceptions that individuals ultimately use as the basis for validating identities (McCall & Simmons, 1966; Stets, 2018). Nonetheless, it is important to note that caregivers' perceptions of their siblings' assessments may not always correspond with siblings' actual assessments. Furthermore, discrepancies between caregivers' perceptions and reality could have consequences for caregivers' relationships with their siblings and, in turn, their psychological well-being. Although caregivers may not perceive that their siblings are critical of their caregiver performance, siblings'

actual criticisms may still fuel tension in the sibling relationship, especially if siblings foster resentment toward caregivers or feel that caregivers are not responding to their feedback. Future research should explore the extent to which perceived criticisms from siblings regarding one's caregiver performance reflect siblings' actual assessments, as well as compare the implications of perceived and actual sibling criticisms for caregivers' sibling relationships and psychological well-being.

Given that sibling relationships are often the most enduring of family ties (Bedford & Avioli, 2012), future research should also consider how siblings' relationship history shapes perceived sibling criticism and sibling tension within the context of caregiving. In particular, in light of research demonstrating how perceptions of parental favoritism and disfavoritism fuel sibling tension within the context of caregiving (Suitor et al., 2014), it would be interesting to explore how longstanding perceptions of parental favoritism and disfavoritism may affect caregivers' perceptions of, and reactions to, sibling criticism regarding their caregiver performance. In addition, in light of theory suggesting that the lives of family members are inextricably linked, such that the experiences and well-being of one generation affect the experiences and well-being of another (Daaleman & Elder, 2007), future research should explore whether perceived sibling criticism and sibling tension influence the well-being of the parent receiving care.

Although this study has important implications for our understanding of how siblings influence each other during caregiving, there are limitations of this analysis that future researchers should take into consideration. First, this analysis is cross-sectional, relying on adult children's reports at a single wave of the WFDS. Although we feel that our theory and mixed-methods approach lend support to our conclusions, we encourage future researchers to explore these questions longitudinally and investigate the directionality underlying these associations.

Additionally, in this article, we focus on caregivers' perceptions that their siblings were critical of the care that they provided their mothers. We believe that the focus on adult children providing care to mothers is warranted given research showing that fathers are more likely to receive care from their wives; thus, adult children tend to play a much larger role in their mothers' care than in their fathers' care (Feld et al., 2006; Katz et al., 2000). Nonetheless, we recognize that the care that children provide their fathers may also shape their caregiver identity, as well as siblings' assessments of their caregiver performance. Future research should consider the experiences of adult children providing care to their fathers, as well as how the patterns and implications of caregiver identity threat may vary for those providing care to both their mother and father.

In this article, we adopt an innovative lens to examine the implications of family processes for caregiver well-being. Drawing from theories of identity and stress, we explore

the consequences of perceived criticisms from siblings regarding one's caregiving performance for adult children's psychological well-being. By utilizing both quantitative and qualitative data, we were able to not only to establish statistical patterns, but also to gain a richer understanding of the mechanisms underlying these associations. Our results demonstrate how identity processes, as well as the family networks in which caregiving takes place, shape the experiences and consequences of caring for older parents.

Supplementary Material

Supplementary data are available at *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* online.

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Author Contributions

M. Rurka took lead in developing and writing the article and conducted the data analyses. J. J. Suitor and M. Gilligan collaborated on developing the article, consulted on data analyses, and helped to prepare the manuscript.

Conflict of Interest

None declared.

References

- Allison, P. D. (2010). Missing data. In J. Wright & P. Marsden (Eds.), *Handbook of survey research* (pp. 631–658): Emerald Group Limited.
- Aneshensel, C. S., Pearlin, L. I., Mullan, J. T., Zarit, S. H., Whitlatch, C. J. (1995). *Profiles in caregiving: The unexpected career*. Academic Press.
- Antonucci, T. C., Akiyama, H., & Takahashi, K. (2004). Attachment and close relationships across the life span. *Attachment & Human Development*, 6(4), 353–370. doi:10.1080/1461673042000303136
- Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1), 1–48. doi:10.18637/jss.v067.i01
- Bedford, V. H., & Avioli, P. S. (2012). Siblings in middle and late adulthood. In R. Blieszner & V. H. Bedford (Eds.), *Handbook of families and aging* (2nd ed., pp. 125–153). Praeger.
- Borkan, J. (1999). Immersion/crystallization. In B.F. Crabtree & W.L. Miller (Eds.), *Doing qualitative research* (2nd ed., pp. 179–194). Sage Publications.
- Burke, P. J. (1991). Identity processes and social stress. *American Sociological Review*, 56, 836–849. doi:10.2307/2096259

- Cicirelli, V. G. (1989). Feelings of attachment to siblings and well-being in later life. *Psychology and Aging*, 4(2), 211–216. doi:10.1037//0882-7974.4.2.211
- Clarke, P., Marshall, V., House, J., & Lantz, P. (2011). The social structuring of mental health over the adult life course: Advancing theory in the sociology of aging. *Social Forces*, 89(4), 1287–1313. doi:10.1353/sof.2011.0036
- Cohen, C. A., Colantonio, A., & Vernich, L. (2002). Positive aspects of caregiving: Rounding out the caregiver experience. *International Journal of Geriatric Psychiatry*, 17(2), 184–188. doi:10.1002/gps.561
- Connidis, I. A., & Campbell, L. D. (1995). Closeness, confiding, and contact among siblings in middle and late adulthood. *Journal of Family Issues*, 16, 722–745. doi:10.1177/019251395016006003
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Daaleman, T. P., & Elder, G. H. Jr. (2007). Family medicine and the life course paradigm. *Journal of the American Board of Family Medicine*, 20(1), 85–92. doi:10.3122/jabfm.2007.01.060012
- Dixon, J., & Tucker, C. (2010). Survey nonresponse. In P. V. Marsden & J. D. Wright (Eds.), *Handbook of survey research* (pp. 593–563). Emerald Group.
- Eifert, E. K., Adams, R., Dudley, W., & Perko, M. (2015). Family caregiver identity: A literature review. *American Journal of Health Education*, 46(6), 357–367. doi:10.1080/19325037.2015.1099482
- Feld, S., Dunkle, R. E., Schroepfer, T., & Shen, H. W. (2006). Expansion of elderly couples' IADL caregiver networks beyond the marital dyad. *International Journal of Aging & Human Development*, 63(2), 95–113. doi:10.2190/CW8G-PB6B-NCGH-HT1M
- Gilligan, M., Sutor, J. J., Nam, S., Routh, B. N., Rurka, M., & Con, G. (2017). Family networks and psychological well-being in midlife. *Social Sciences*, 6, 94. doi:10.3390/socsci6030094
- 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(2), 383–395. doi:10.1111/j.1741-3737.2010.00813.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(6), 735–766. doi:10.1177/0192513x10390184
- Katz, S. J., Kabeto, M., & Langa, K. M. (2000). Gender disparities in the receipt of home care for elderly people with disability in the United States. *Journal of the American Medical Association*, 284(23), 3022–3027. doi:10.1001/jama.284.23.3022
- Koehly, L. M., Ashida, S., Schafer, E. J., & Ludden, A. (2015). Caregiving networks—using a network approach to identify missed opportunities. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 70(1), 143–154. doi:10.1093/geronb/gbu111
- Lamont, R. A., Quinn, C., Nelis, S. M., Martyr, A., Rusted, J. M., Hindle, J. V., Longdon, B., Clare, L., & IDEAL study team. (2019). Self-esteem, self-efficacy, and optimism as psychological resources among caregivers of people with dementia: Findings from the IDEAL study. *International Psychogeriatrics*, 31(9), 1259–1266. doi:10.1017/s1041610219001236
- Lloyd, J., Patterson, T., & Muers, J. (2016). The positive aspects of caregiving in dementia: A critical review of the qualitative literature. *Dementia (London, England)*, 15(6), 1534–1561. doi:10.1177/1471301214564792
- Matthews, S. H. (2002). *Sisters and brothers, daughters and sons: Meeting the needs of old parents*. Unlimited Publishing.
- McCall, G. J., & Simmons, J. L. (1966). The role-identity model (Chapter 4). In McCall & Simmons (Eds.), *Identities and interactions* (pp. 63–104). Free Press.
- Montgomery, R. J. V., & Kosloski, K. D. (2013). Pathways to a caregiver identity and implications for support services. In R. C. Talley & R. J. V. Montgomery (Eds.), *Caregiving: Research, practice, policy. Caregiving across the lifespan: Research, practice, policy* (pp. 131–156). Springer Science + Business Media. doi:10.1007/978-1-4614-5553-0_8
- National Academies of Sciences, Engineering, and Medicine. (2016). *Families caring for an aging America*. The National Academies Press. doi:10.17226/23606
- Paul, E. L. (1997). A longitudinal analysis of midlife interpersonal relationships and well-being. In M. E. Lachman & J. B. James (Eds.), *Multiple paths of midlife development* (pp. 171–206). University of Chicago Press.
- 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(5), 583–594. doi:10.1093/geront/30.5.583
- Pillemer, K., & Gilligan, M. (2018). Translating basic research on the aging family to caregiving intervention: The case of within-family differences. *Innovation in Aging*, 2(1), igx035. doi:10.1093/geroni/igx035
- Pinquant, M., & Sörensen, S. (2003). Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. *Psychology and Aging*, 18(2), 250–267. doi:10.1037/0882-7974.18.2.250
- Polenick, C. A., Kales, H. C., & Birditt, K. S. (2018). Perceptions of purpose in life within spousal care dyads: Associations with emotional and physical caregiving difficulties. *Annals of Behavioral Medicine*, 52(1), 77–87. doi:10.1093/abm/kax005
- Pristavec, T. (2019). The burden and benefits of caregiving: A latent class analysis. *The Gerontologist*, 59(6), 1078–1091. doi:10.1093/geront/gny022
- Ross, C. E., & Mirowsky, J. (1988). Child care and emotional adjustment to wives' employment. *Journal of Health and Social Behavior*, 29(2), 127–138. doi:10.2307/2137053
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. Transaction Publishers.
- Savundranayagam, M. Y., & Montgomery, R. J. (2010). Impact of role discrepancies on caregiver burden among spouses. *Research on Aging*, 32(2), 175–199. doi:10.1177/0164027509351473
- Schieman, S., & Glavin, P. (2011). Education and work-family conflict: Explanations, contingencies and mental health consequences. *Social Forces*, 89(4), 1341–1362. doi:10.1093/sf/89.4.1341
- Spitze, G., & Trent, K. (2006). Gender differences in adult sibling relations in two-child families. *Journal of Marriage and Family*, 68(4), 977–992. doi:10.1111/j.1741-3737.2006.00308.x
- Stets, J. E. (2018). Identity theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (2nd ed.). Stanford University Press.
- Stets, J. E., & Burke, P. J. (2014). Self-esteem and identities. *Sociological Perspectives*, 57, 409–433. doi:10.1177/0731121414536141

- Stets, J. E., Savage, S. V., Burke, P. J., & Fares, P. (2020). Cognitive and behavioral responses to the identity verification process. In R. T. Serpe, R. Stryker, & B. Powell (Eds.), *Identity and symbolic interaction: Deepening foundations, building bridges* (pp. 65–88). Springer. doi:10.1007/978-3-030-41231-9
- Stets, J. E., & Serpe, R.T. (2013). Identity theory. In J. Delamater & A. Ward (Eds.), *Handbook of social psychology* (2nd ed., pp. 31–60). Springer. doi:10.1007/978-94-007-6772-0_2
- Stocker, C. M., Gilligan, M., Klopach, E. T., Conger, K. J., Lanthier, R. P., Nepl, T. K., O'Neal, C. W., & Wickrama, K. A. S. (2020). Sibling relationships in older adulthood: Links with loneliness and well-being. *Journal of Family Psychology, 34*(2), 175–185. doi:10.1037/fam0000586
- Strawbridge, W. J., & Wallhagen, M. I. (1991). Impact of family conflict on adult child caregivers. *The Gerontologist, 31*(6), 770–777. doi:10.1093/geront/31.6.770
- Suitor, J. J., Gilligan, M., Johnson, K., & Pillemer, K. (2014). Caregiving, perceptions of maternal favoritism, and tension among siblings. *The Gerontologist, 54*(4), 580–588. doi:10.1093/geront/gnt065
- Suitor, J. J., Gilligan, M., & Pillemer, K. (2013). Continuity and change in mothers' favoritism toward offspring in adulthood. *Journal of Marriage and Family, 75*(5), 1229–1247. doi:10.1111/jomf.12067
- Suitor, J. J., Gilligan, M., Rurka, M., Con, G., Peng, S., & Pillemer, K. (2018). Conflict with mothers and siblings during caregiving: Differential costs for black and white adult children. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 73*(7), 86–97. doi:10.1093/geronb/gbx149
- Suitor, J. J., Sechrist, J., Plikuhn, M., Pardo, S. T., Gilligan, M., & Pillemer, K. (2009). The role of perceived maternal favoritism in sibling relations in midlife. *Journal of Marriage and the Family, 71*(4), 1026–1038. doi:10.1111/j.1741-3737.2009.00650.x
- Tarlow, B. J., Wisniewski, S. R., Belle, S. H., Rubert, M., Ory, M. G., & Gallagher-Thompson, D. (2004). Positive aspects of caregiving: Contributions of the REACH project to the development of new measures for Alzheimer's caregiving. *Research on Aging, 26*(4), 429–453. doi:10.1177/0164027504264493
- Thoits, P. A. (2012). Role-identity salience, purpose and meaning in life, and well-being among volunteers. *Social Psychology Quarterly, 75*(4), 360–384. doi:10.1177/0190272512459662
- Tingley, D., Yamamoto, T., Hirose, K., Keele, L., & Imai, K. (2014). Mediation: R package for causal mediation analysis. *Journal of Statistical Software, 59*(5), 1–38. doi:10.18637/jss.v059.i05