

**THE CAREGIVER IDENTITY IN CONTEXT:
CONSEQUENCES AND PATTERNS OF IDENTITY THREAT
FROM SIBLINGS**

by

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Dedicated to my family.

In memory of my Grandma Patsy, Opa, Grandma Rurka, and Grandpa Rurka.

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ABSTRACT

Caring for older family members has become a focus of national attention among policy makers given concerns for the quality of life of both caregivers and care recipients. Although caregivers' siblings often represent important ties for both the adult children providing care and parents receiving care, there has been limited attention to how siblings affect one another's well-being during parent care. Guided by theories of identity and stress, the central aims of this dissertation are to investigate: (1) Whether perceiving care-related criticism from siblings is associated with higher depressive symptoms among adult children providing care to their mother; and (2) whether caregivers' gender and the gender composition of the sibling networks in which they are embedded influence caregivers' probability of perceiving care-related criticism from siblings. To achieve these aims, I utilize both quantitative and qualitative data collected from adult children providing care to their mothers as part of the Within-Family Differences Study-II. This mixed-methods approach enables me to not only examine statistical relationships, but also to identify mechanisms underlying these statistical patterns.

Quantitative analyses revealed that perceived care-related criticism from siblings was not directly associated with caregivers' depressive symptoms, but rather operated through its association with sibling tension. Consistent with theories of identity maintenance, qualitative analyses suggested that, in response to their siblings' criticisms, caregivers often reacted in ways that may have been protective for their identity as a "good caregiver," but that could have been a catalyst for sibling conflict and, in turn, psychological distress. Once perceived sibling criticism was established as a stressor with detrimental consequences for caregivers' relational and psychological well-being, I then explored whether caregivers' gender, as well as the genders of their siblings, shape caregivers' probability of perceiving sibling criticism. As I anticipated based

on theories of gender and group dynamics, daughters' probability of perceiving sibling criticism depended on the gender composition of the sibling networks in which they were embedded; in particular, daughters in predominantly-son families had a notably lower risk of perceiving care-related criticism than daughters in families with a higher proportion of daughters. Consistent with theories of tokenism, qualitative data revealed that adult children in families with a higher proportion of daughters were less able to rely solely on gender stereotypes to shape caregiving expectations. As a result, there tended to be less consensus among siblings regarding who best understood their mother's care needs and preferences, and higher rates of perceived sibling criticism among daughters.

Taken together, these findings demonstrate the influence that identity processes, as well as the sibling networks in which caregiving takes place, have in shaping the experiences and consequences of parent care. This work demonstrates the value of utilizing a mixed-methods approach to gain a nuanced understanding of complex family processes. In addition, these findings offer valuable insights to health care professionals and other stakeholders who interact with and serve family caregivers. By understanding the mechanisms through which sibling context may contribute to psychological distress among caregivers, these stakeholders will be better prepared to identify and address caregivers' socio-emotional needs.

CHAPTER 1. INTRODUCTION

1.1 Objectives

Caregivers are often described as the “backbone” of healthcare in the United States. In 2017, caregivers provided an estimated 34 billion hours of care; the economic value of this care was estimated to be \$470 billion, more than all out-of-pocket spending on healthcare in the US that same year (Reinhard, Feinburg, Houser, Choula, & Evans, 2019). However, for many caregivers, caring for a loved one can represent “a fertile ground for persistent stress” (p. 583, Pearlin, Mullan, Semple, & Skaff, 1990). Research consistently shows that family caregivers are at an increased risk for a myriad of negative health outcomes, including higher rates of chronic disease, worse health behaviors, and more depressive symptoms (National Academies of Sciences, Engineering, and Medicine, 2016; Pinquart & Sorensen, 2003). Not only is caregiver burden detrimental to caregivers’ health, but it can also have negative consequences for care recipients’ health (Pristavec, 2019; Pristavec & Luth, 2020). Given concerns for the quality of life of both caregivers and care recipients, identifying ways to support family caregivers has been declared a national priority (RAISE Family Caregivers Act, S. 1028, 2018). In order to better address the needs of caregivers, it is important to identify care-related stressors that contribute to their psychological distress. In addition, it is important to identify which caregivers are at the greatest risk of exposure to these stressors.

In their conceptual model of the caregiver stress process, Aneshensel and colleagues (1995) discussed family context as a factor that can exacerbate or mediate 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 particular, there has been limited attention to how siblings affect each other's well-being during parent care, despite the fact that a caregiver's siblings often represent significant and enduring ties for both the caregiver and care recipient (Antonucci, Akiyama, & Takahashi, 2004; Bedford & Avioli, 2012).

Theories of identity maintenance and stress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013) offer a valuable lens for identifying mechanisms through which siblings affect one another during caregiving. Although scholars have discussed identity processes as they apply to the caregiver identity, this work has largely focused on how, as the needs of a care recipient escalate, caregivers may find it difficult to maintain other identities (Eifert, Adams, Dudley, & Perko, 2015; Montgomery & Kosloski, 2013; Skaiff & Pearlin, 1992), resulting 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.

In recent decades, the role of gender has become a focal point of discussions of stress during caregiving. However, most of this literature focuses on gender disparities in what some have termed "objective stressors" of caregiving (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995), such as the hours and nature of care provided (Grigoryeva, 2017; Pinquart & Sorensen, 2006). Fewer scholars have considered how gender shapes caregivers' risk of exposure to "subjective stressors" of caregiving (Aneshensel et al., 1995), such as threats to one's identity as a "good caregiver." In particular, scholars have not considered how caregivers' gender, as

well as the genders of their siblings, interact to shape caregivers' probability of perceiving care-related criticism from siblings.

The central aim of this dissertation is to shed light on how the sibling context in which caregivers are situated shapes the consequences of parent care on adult children's psychological and relational well-being. Utilizing both quantitative and qualitative data from a large, probability sample of adult children providing care to their mother, I examine the following research questions:

1. Do caregivers who perceive that their siblings are critical of the care that they provide their mother experience higher levels of depressive symptoms? What are the mechanisms underlying statistical associations?
2. How do caregivers' gender, as well as the gender composition of the sibling network in which they are embedded, shape caregivers' probability of perceiving care-related criticism from siblings? What social processes give rise to these gendered patterns?

1.2 Conceptual Framework

In their model of the caregiver stress process, Aneshensel and colleagues (1995) highlight family context as a factor that can mitigate or exacerbate the stressors and psychological consequences of caregiving. Inspired by this perspective, my dissertation aims to shed light on how siblings influence each other's psychological well-being during parent care. I first draw from theories of identity and stress (Burke, 1991; McCall & Simmons, 1966; Stets, 2018; Stets, Savage, Burke, & Fares, 2020) to explore whether caregivers' perceptions that their siblings are critical of the care they provide their mother are associated with higher depressive symptoms, and elucidate the mechanisms underlying this association. I then build upon theories of gender and group dynamics (Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010), as well as

empirical work on gendered patterns and stressors of parent care (Brody, Hoffman, Kleban, & Schoonover, 1989; Grigoryeva, 2017; Matthews, 2002), to explore how caregivers' gender, as well as the genders of their siblings, influence their probability of perceiving care-related criticism from siblings.

1.2.1 Consequences of Perceived Sibling Criticism through the Lens of Identity Theory

Theories of identity and stress offer valuable insights into why perceiving care-related criticism from siblings may serve as a stressor with detrimental consequences for caregivers' psychological well-being. According to theories of identity maintenance (Burke, 1991; Stets, 2018; Stets & Serpe, 2013), in order to accrue the benefits of a given identity (i.e., purpose, 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, their ability to verify that identity is threatened. Consequently, they may experience psychological distress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013). However, individuals may employ a number of strategies to maintain their identity and protect their psychological well-being, despite threatening feedback, such as blaming others for their lackluster performance or discrediting the source of the feedback (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 the threatening feedback. This relationship tension, in turn, could represent a source of psychological distress.

Based on this theoretical work, I anticipated that adult children who perceived that their siblings were critical of the care that they provided their mother would report higher depressive symptoms. I proposed two mechanisms through which this perceived criticism could influence caregivers' depressive symptoms. First, I hypothesized that perceived sibling criticism is directly associated with depressive symptoms. If caregivers perceive that their siblings are critical of the care that they have provided their mother, 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 will have a more difficult time maintaining that they are a good caregiver and, as a result, experience higher depressive symptoms.

Second, I hypothesized that perceived sibling criticism would be indirectly associated with depressive symptoms through sibling tension. In particular, in an attempt to maintain their identity as a "good caregiver" in the face of critical feedback from siblings, caregivers will rely on coping strategies that fuel tension in the sibling relationship; for example, caregivers may discredit their siblings' perspectives or blame their siblings for their own lackluster caregiver performance. This higher sibling tension, in turn, will be associated with higher depressive symptoms.

1.2.2 Gendered Patterns of Perceived Care-Related Criticism from Siblings

Theories of gender socialization and roles offer a useful framework for considering how gender shapes caregivers' likelihood of perceiving care-related criticism from siblings. From childhood, daughters are often encouraged to cultivate and value interpersonal relationships, particularly family relationships, whereas sons are encouraged to pursue and value instrumental success beyond the family (Chodorow, 1978; Gilligan 1982). Consequently, daughters are more likely than sons to perceive that they have a filial obligation to care for their parents, and sons are

more likely to believe that they have “legitimate excuses” (e.g., career obligations) for limiting or avoiding parent care responsibilities (Brody, Hoffman, Kleban, & Schoonover, 1989; Finch & Mason, 1993; Folbre, 2012). These perceptions are often reinforced by others within the family and society, as individuals are likely to perceive sons’ excuses for not participating in parent care to be more legitimate than daughters’ excuses (Finch & Mason, 1993; Campbell & Martin-Matthews, 2003; Ingersoll-Dayton, Neal, Ha, & Hammer, 2003). In addition, women are often perceived to be more “naturally skilled at” and “qualified” for care work (Cancian & Olicker, 2000; Hequembourg & Brallier, 2005; Ingersoll-Dayton et al., 2003). On one hand, due to the higher expectations that are often placed on and internalized by daughters, it is possible that daughters are at greater risk than sons of falling short of these expectations and, in turn, perceiving care-related criticism. Alternatively, given that women are often perceived to be more natural and qualified caregivers, it is possible that they are perceived to better understand their mother’s care needs. As a result, daughters may be at a reduced risk of perceiving care-related criticism from their siblings.

Both theoretical and empirical work suggest that, in addition to caregivers’ gender, it is important to consider how the gender composition of the sibling networks in which caregivers are embedded shape their probability of perceiving care-related criticism from siblings. Daughters and sons tend to have different standards for what it means to be a “good caregiver” (Hequembourg & Brallier, 2005; Matthews, 2002). For daughters, being a good caregiver often involves actively monitoring, anticipating, and providing for all of their parents’ needs; for sons, being a good caregiver often means responding to parents’ requests for assistance, as well as promoting their parents’ autonomy and independence (Matthews, 2002). In a qualitative study of daughter and son caregivers to older parents, Matthews (2002) found that these discrepant

standards regarding what it means to be a “good caregiver” lead to greater discord in mixed-gender families. Given that daughters and sons tend to have different ideas of what it means to be a good caregiver, it is possible that caregivers in mixed-gender sibships are at greater risk of perceiving criticism from a sibling who does not agree with their approach to care.

Token theory (Kanter, 1977; Turco, 2010) also offers insight into how the gender composition of a sibship may shape caregivers’ risk of perceiving care-related criticism from siblings. According to token theory, in groups where one social type is greatly outnumbered (skewed groups), individuals in the minority group (tokens) tend to be subject to greater stereotyping; in addition, differences between the groups tend to be exaggerated. In the context of parent care, token theory suggests that, in skewed-gender sibships, adult children may rely more heavily on gender stereotypes to shape caregiving expectations. Although in general daughters tend to be perceived as more natural and qualified caregivers (Cancian & Olicker, 2000; Hequembourg & Brallier, 2005; Ingersoll-Dayton et al., 2003), token daughters in predominantly-son families may feel even more pressure to conform to these gendered expectations. Due to these concentrated gender expectations, these token daughters may be held to an even higher caregiver standard; as a result, they may be at even greater risk of falling short of their siblings’ expectations and perceiving care-related criticism. On the other hand, token daughters in predominantly-son families may be seen as the clear and obvious authority on their mother’s care, and thus less vulnerable to care-related criticism from siblings.

1.2.3 Summary of Hypotheses

Drawing from theories of identity and stress (Burke, 1991; McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020), I anticipate that adult children who perceive care-related criticism from siblings will report higher depressive symptoms. I propose two mechanisms for this

association. First, *I hypothesize that perceived sibling criticism will be directly associated with caregivers' depressive symptoms*. Specifically, I expect that, because perceived sibling criticism threatens adult children's abilities to maintain their identity as good caregivers, these criticisms will be associated with higher depressive symptoms. Second, *I hypothesize that perceived sibling criticism will be indirectly associated with caregivers' depressive symptoms through its association with sibling tension*. In particular, I anticipate that, in response to perceived sibling criticism, caregivers will employ coping strategies that increase sibling tension, and higher sibling tension will be associated with higher depressive symptoms. Based on theories of gender and group dynamics (e.g., Cancian & Oliner, 2000; Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010), as well as empirical work on gendered patterns and stressors of parent care (e.g., Brody et al., 1989; Grigoryeva, 2017; Matthews, 2002), *I hypothesize that caregivers' probability of perceiving care-related criticism from siblings will depend on their own gender, as well as the genders of their siblings*.

1.3 Innovation and Significance

This dissertation is innovative and significant in several regards. First, I adopt an innovative lens to examine the implications of family processes for caregiver well-being: theories of identity and stress. Drawing from this theoretical perspective, this study is the first to explore whether perceived care-related criticism from siblings is associated with greater psychological distress among adult children providing parent care, as well as the mechanisms underlying this association. Second, to date few scholars have explored how gender shapes caregivers' probability of experiencing "subjective stressors" (Aneshensel et al., 1995) of caregiving. In this dissertation, I explore how caregivers' gender, as well as the genders of their siblings, shape their probability of reporting a perception that, according to theories of identity

and stress, may represent a subjective stressor of caregiving: care-related criticism from siblings. Third, to accomplish these research aims, I employ a mixed-methods approach, which allows me to not only to establish statistical patterns, but also to gain a richer understanding of the mechanisms underlying these associations. Finally, my dissertation promises to offer valuable insights to policymakers and practitioners seeking to support family caregivers. By understanding the mechanisms through which family context may contribute to psychological distress among caregivers, these stakeholders will be better prepared to serve caregivers. Furthermore, these findings could be used to identify family caregivers who are at the greatest risk of experiencing these family-related stressors and in greatest need of support.

1.4 Data and Methods

To address these research aims, data from the second wave (T2) of the Within-Family Differences Study (WFDS) were used. The design of the WFDS 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 2008-2011, 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 Suitor, Gilligan, & Pillemer, 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).

The Within-Family Differences Study-II is an ideal dataset for these analyses for a number of reasons. As part of the study, adult children were specifically asked about their sibling relationships and interactions within the context of their mother's care, including whether they perceived that their siblings were critical of the care that they provided their mother. As a result, I was able to explore perceived care-related criticism from siblings as a potential mechanism

through which siblings influence each other's psychological well-being during caregiving. In addition, rich data were collected on the sibling networks in which these adult child caregivers are situated. As a result, I was able to explore how caregivers' gender, as well as the genders of their siblings, shape their risk of perceiving care-related sibling criticism. Finally, the study involved collecting both quantitative and qualitative data from a large, probability sample of adult children from over 500 families. As a result, I could employ a mixed-methods approach, exploring not only statistical patterns, but also the complex family processes underlying statistical patterns.

In Chapter 2, I employed a mixed-methods approach to determine whether perceived care-related sibling criticism is associated with depressive symptoms (a) directly, and/or (b) indirectly through sibling tension, as well as the mechanisms underlying this association. As part of the quantitative analyses, I conducted multilevel mediation analyses using the "Mediation" (Tingley, Yamamoto, Hirose, Keele, & Imai, 2014) and "lme4" (Bates, Maechler, Bolker, & Walker, 2015) packages in R. To analyze the qualitative data, I implemented Borkan's (1990) "immersion/crystallization" method. In Chapter 3, I used a mixed-methods approach to explore how caregivers' gender, as well as the genders of their siblings, interact to shape caregivers' probability of perceiving care-related sibling criticism. For the quantitative analyses, I fit a multilevel logistic regression model using Stata 16. Qualitative data were once again analyzed using the "immersion/crystallization" method (Borkan, 1990).

1.5 Description of Chapters

The remainder of this dissertation is divided into two empirical chapters and a concluding chapter. Chapters 2 and 3 are written in the format of stand-alone empirical journal articles with introduction, conceptual framework, methods, results, and discussion sections. In Chapter 2, I

draw from theories of identity and stress 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. In Chapter 3, I build upon theories of gender and group dynamics, as well as empirical work on gendered patterns and stressors of parent care, to explore how caregivers' gender, as well as the genders of their siblings, shape their probability of perceiving care-related criticism from siblings. Finally, in Chapter 4, I discuss the findings within the context of the broader literature on family caregiving and the stress process. I highlight implications of the findings for theory and practice, and suggest directions for future research.

CHAPTER 2. THE CAREGIVER IDENTITY IN CONTEXT: CONSEQUENCES OF IDENTITY THREAT FROM SIBLINGS¹

2.1 Introduction

In their influential work on caregiving and the stress process, Pearlin and colleagues (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 mediate 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, Ashida, Schafer, & Ludden, 2015; Pillemer & Gilligan, 2018). Although siblings represent central members of the networks of caregivers (Antonucci, Akiyama, & Takahashi, 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

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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, Adams, Dudley, & Perko, 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, in this chapter I examine the impact siblings have on caregivers' psychological well-being. Specifically, I 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, I conduct mediation analyses to examine whether perceived sibling criticism is associated with caregivers' depressive symptoms (a) directly, and/or (b) indirectly through sibling tension. I 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 criticism, sibling tension, and depressive symptoms.

2.1.1 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, 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 non-verifying 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, Savage, Burke, & Fares, 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 the threatening feedback.

2.1.2 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, Patterson, & Muers, 2014; Tarlow et al., 2004), which in turn have positive implications for caregiver health and well-being (Cohen, Colantonio, & Vernich, 2002; Lamont et al., 2019; Polenick, Kales, & Birditt, 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, Akiyama, & Takahashi, 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, I 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), I 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, I 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 and colleagues (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' criticism, caregivers may employ strategies that fuel tension in their sibling relationships, which in turn may increase depressive symptoms. Based on this logic, I hypothesize that perceived sibling criticism will also be associated with caregivers' depressive symptoms indirectly through sibling tension; in particular, perceived sibling criticism will be associated with higher sibling tension, which will in turn be associated with caregivers' higher depressive symptoms.

2.1.3 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, I 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, Marshall, House, & Lantz, 2011; Connidis & Campbell, 1995; Schieman & Galvin, 2011; Sutor et al., 2018). In addition, given research suggesting that coresiding caregivers experience greater caregiver burden than noncoresident caregivers (Pristavec, 2019), I 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, I 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), I also control for whether children identified as primary or secondary caregivers for their mother relative to their siblings. Finally, scholars have identified size and gender composition of a sibship as important variables to consider when examining patterns and consequences of family caregiving (Henretta, Soldo, & Matthew, 2011; Matthews, 2002); thus, I control for both family characteristics in the quantitative analyses.

2.1.4 Summary

Drawing from theories of identity and stress, I hypothesize that adult children who perceive that their siblings are critical of their caregiver performance will report higher depressive symptoms. As outlined in Figure 2.1, I propose two mechanisms underlying this association. First, I hypothesize that perceived sibling criticism will be directly associated with depressive symptoms. Specifically, because perceived sibling criticism threatens adult children's ability to maintain their identity as a good caregiver, these criticisms will be associated with

higher depressive symptoms. Second, I hypothesize that perceived sibling criticism will be indirectly associated with depressive symptoms through sibling tension. In particular, in response to perceived sibling criticism, caregivers will employ coping strategies that fuel sibling tension, and higher sibling tension will be associated with higher depressive symptoms. To test these hypotheses, I utilize quantitative data from 404 caregivers nested within 231 families collected as part of the Within-Family Differences Study. To shed light on the processes underlying statistical associations, I analyze qualitative data from the same sample of caregivers.

2.2 Methods

2.2.1 Procedures

For both the quantitative and qualitative analyses, I use data collected as part of the Within-Family Differences Study (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 2008-2011, 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 Suitor, Gilligan, & Pillemer, 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 me to contextualize the qualitative data.

2.2.2 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 criticism, 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 is comprised of 404 caregivers nested within 231 families.

2.2.3 Measures

2.2.3.1 Dependent Variable

The dependent variable for the quantitative analysis is caregivers' *depressive symptoms* at T2. To measure depressive symptoms, I use 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 7-28, with higher scores signifying higher levels of depressive symptoms (Mean=11.69; SD=4.65; Cronbach's alpha = 0.85).

2.2.3.2 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), I selected a measure that captures perceived sibling criticism, rather than siblings' actual criticisms. Although I argue that the dichotomous measure gives valuable insight into whether caregivers have to some extent perceived negative feedback from siblings regarding their caregiver performance, I 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 Within-Family Differences Study. 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.

2.2.3.3 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 I 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).

2.2.3.4 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; 0 = son. *Age* was measured as adult children’s age in years at T2. *Marital status* was coded as 1 = married; 0 = not married. *Parental status* was measured using respondents’ reports of whether they had any children; 1 = parent, 0 = non-parent. *Employment status* was measured using respondents’ reports of whether they were currently working at a job for pay; 1 = employed, 0 = unemployed. *Coresidential status* was measured based on respondents’ reports of whether they were living

with their mothers; 1 = coresiding with mother, 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 percent (60 caregivers) perceived that at least one of their siblings was critical of the care that they provided their mothers, and approximately 67 percent (270 caregivers) perceived that at least one of their siblings was supportive of the ways in which they helped their mothers. A Pearson's chi-squared test revealed that perceiving sibling criticism was negatively associated with perceiving sibling support ($\chi^2 = 7.31, p < 0.01$). Although caregivers who perceived sibling criticism were less likely to report sibling support, it is important to note that over 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 2.1.

2.2.4 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 Within-Family Differences Study, I 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.

2.2.4.1 Quantitative Analysis

The aim of the quantitative analysis is to examine whether perceived sibling criticism is associated with depressive symptoms (a) directly, and/or (b) indirectly through sibling tension. To accomplish this aim, I conducted mediation analyses with sibling tension as a mediator between perceived sibling criticism and depressive symptoms. Given that I am relying on the reports of multiple caregivers within families, the observations for this analysis are not independent. To account for this nested data structure, I used the “lme4” package in R to estimate the linear mixed-effects models (Bates, Maechler, Bolker, & Walker, 2015). I then utilized the “Mediation” package in R (Tingley, Yamamoto, Hirose, Keele, & Imai, 2014) to estimate the direct and indirect associations. To determine the significance of the direct association and indirect association, I used a quasi-Bayesian Monte-Carlo simulation with 1000 iterations. All data for the analyses were collected at T2 of the Within-Family Differences Study. Listwise deletion was used to handle missing data because there were less than 1% missing on any variable in the analysis (cf. Allison, 2010).

2.2.4.2 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, I 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. Further, 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, I employed the "immersion/crystallization" method (Borkan, 1999). I began by immersing myself 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, I identified patterns that emerged from the transcripts. In the crystallization stage, I 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, I developed a more focused set of codes based on emergent patterns that appeared to be the most theoretically relevant. I continued to refine the codes through this iterative process of immersion and crystallization until no new themes emerged and the set of codes seemed to provide a cohesive and compelling interpretation for the quantitative findings. See Table A.1 in the Appendix for the finalized list and descriptions of the codes used in the qualitative analysis. All names presented are pseudonyms.

2.3 Results

2.3.1 Quantitative Findings

As shown in Table 2.2, 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 ($B=0.51, p<0.05$). As shown in Figure 2.2, perceived sibling criticism was associated with higher sibling tension ($B=0.83, p<0.001$), and higher sibling tension was associated with higher depressive symptoms ($B=0.61, p<0.05$).

2.3.2 Qualitative Findings

Informed by the quantitative findings, I analyzed caregivers' qualitative responses to gain insight into why perceived sibling criticism was not directly associated with depressive symptoms, but rather operated through sibling tension. Based on caregivers' qualitative responses, most caregivers (98 percent) employed psychological and behavioral strategies to either invalidate their siblings' criticism or limit the impact of this criticism on their psychological well-being. I 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 percent); (b) identified positive feedback regarding their caregiver performance (53 percent); (c) disparaged the perspectives of siblings who they perceived to be critical (28 percent); (d) emphasized that the criticisms were normative or not severe (28 percent); (e) asserted that their caregiver performance was reasonable given extenuating circumstances (22 percent); and (f) withdrew from interactions with their critical siblings (5 percent). 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, I 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 percent) utilized at least one of these two strategies.

2.3.2.1 Criticized Siblings' Caregiving Performances

Forty of the 60 caregivers who perceived that their siblings were critical of their caregiver performance (about 67 percent), in turn, criticized some aspect of their siblings' caregiver performances. In seventeen cases, caregivers' criticism appeared to be a direct rebuttal to their siblings' criticism. In response to their siblings' criticism 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' criticism 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' criticism, or even utilize this criticism 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' criticism of their siblings appeared to be motivated by wanting to directly refute what they perceived to be their siblings' criticism of their caregiver performance. Notably, in response to perceived criticism 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.

2.3.2.2 Disparaging the Source of the Criticism

Another strategy that caregivers utilized to discount their siblings' criticism was to question the legitimacy of this criticism; 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' criticism was to point out the hypocritical nature of the criticism. For example, when describing his siblings' criticism, 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' criticism 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 criticism by maintaining that their siblings' criticism is not indicative of the caregiver's own shortcomings, but rather is indicative of the siblings' insecurities and inadequacies as a caregiver. Although discounting siblings' criticism 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.

2.3.3 Ad Hoc Analyses

Given theoretical work suggesting identity threat is more consequential when the identity is more salient to the individual (Burke, 1991), I 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, I conducted a moderated mediation analysis using the “lme4” (Bates et al., 2015) and “Mediation” (Tingley et al., 2014) packages in R and tested the differences between the estimated indirect and direct effects for primary and secondary caregivers. Findings revealed that there were not 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 criticism.

2.4 Discussion

When outlining the caregiver stress process model, Pearlin and colleagues (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, Akiyama, & Takahashi, 2004; Bedford & Avioli, 2012), there has been limited attention to how siblings affect one another's well-being during caregiving. In this chapter, I explored how caregivers' psychological well-being is influenced by the sibling networks in which they are embedded. In particular, I 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), I expected that perceived sibling criticism would threaten an adult child's ability to maintain their identity as a "good caregiver," which would be psychologically distressing for caregivers. Thus, I hypothesized that perceived sibling criticism 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), I proposed that perceived sibling criticism 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; Sutor et al., 2018) suggesting family conflict is a secondary stressor that exacerbates caregivers' psychological distress, I 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 criticism is 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 my expectations, however, perceived sibling criticism was not directly associated with depressive symptoms. To better understand the processes underlying these statistical associations, I turned to caregivers' qualitative responses, examining caregivers' understanding of and reactions to their siblings' criticism.

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 percent) 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 this perceived criticism. 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. Further, 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 criticism, and even utilize sibling criticism 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). Further, 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' criticism was not actually indicative of their performance, but rather was motivated by 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 criticism 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' criticism 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 Pearlin and colleagues (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 offers valuable insight into how identity maintenance processes unfold in a "real-world" context. Contrary to expectations, quantitative analyses revealed that perceived sibling criticism was not directly associated with depressive symptoms. Based on the qualitative

data, I maintain that this may be because adult children were adept at employing strategies to avoid and mitigate the psychological consequences of identity threat. Although there is considerable emphasis within the identity maintenance literature on how non-verifying feedback is psychologically distressing, there is much less attention to the behavioral and psychological strategies that individuals employ to avoid and alleviate this psychological distress (see Finch & Stryker, 2020 for a notable exception). Future work in this area should devote more attention to how individuals adapt their behavior and identity standards to evade the psychological consequences of identity non-verification.

These findings also contribute to our understanding of how identity maintenance processes unfold in small groups. Although the identity control process is most often discussed from the perspective of one individual, scholars have noted that in any interaction, there are multiple individuals seeking verification for their identities (Stets & Burke, 2005; Riley & Burke, 1995). Within the context of family caregiving, adult children are often assessing their siblings' performances of the caregiver identity at the same time that they are seeking verification of their own caregiver identity. Qualitative analyses suggest that, in response to critical feedback from siblings, caregivers may be more eager to identify instances in which their siblings were not being good caregivers. This finding demonstrates how, in small groups, individuals' assessments of others' identity performances may be influenced by others' assessments of their identity performances.

In addition, 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, I argue that these reactions to perceived sibling criticism could be motivated by caregivers' desires to defend their identity as a good caregiver. Qualitative analyses suggested, 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 paper, I examine the consequences of *perceived* sibling criticism 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. Further, 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 criticism may still fuel tension in the sibling relationship, especially if siblings foster resentment towards caregivers or feel that caregivers are not responding to their feedback. Future research should explore the extent to which perceived criticism from siblings regarding one's caregiver performance reflects siblings' actual assessments, as well as compare the implications of perceived and actual sibling criticism 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, Gilligan, Johnson, & Pillemer, 2014), it would be interesting to explore how long-standing 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, quantitative analyses revealed that perceived sibling criticism was associated with higher sibling tension and that higher sibling tension was associated with higher depressive symptoms. Although both theory and the qualitative findings lend support to the conclusion that perceived sibling criticism contributes to higher sibling tension and that sibling tension is a source of depressive symptoms, it is possible that the relationships between perceived sibling criticism, sibling tension, and depressive symptoms are reciprocal. For example, perceived sibling criticism may not only be a cause, but also a product of sibling tension. However, given that this dissertation relies on data collected as part of a single wave of the Within-Family Differences Study, I was not able to investigate the directionality of these relationships. I encourage future researchers to explore these questions longitudinally and investigate the directionality underlying these associations.

In addition, qualitative analyses revealed that adult children often voiced disagreement with their critical siblings' views of what it meant to be a good caregiver, and instead endorsed a caregiver standard that more closely reflected their own caregiver performance. Drawing from theories of identity, it is possible that these caregivers strategically embraced a caregiving standard that was more consistent with their caregiver performance in order to maintain their identity as a "good caregiver." However, given the cross-sectional nature of the data used in these analyses, I was unable to explore how adult children's definitions of what it means to be a good caregiver change over time, as well as whether these changes are linked to perceived sibling criticism. Future research should utilize longitudinal data to explore how caregivers adapt

their identity standards over time, how these adaptations are shaped by structural and contextual factors, as well as whether these adaptations are protective for their well-being.

Finally, in this chapter, I focus on caregivers' perceptions that their siblings were critical of the care that they provided their mothers. I 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, Dunkle, Schroepfer, & Shen, 2006; Katz, Kabeto, & Langa, 2000). Nonetheless, I 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.

2.5 Conclusion

In this paper, I adopt an innovative lens to examine the implications of family processes for caregiver well-being. Drawing from theories of identity and stress, I explore the consequences of perceived criticism from siblings regarding one's caregiving performance for adult children's psychological well-being. By utilizing both quantitative and qualitative data, I was able to not only to establish statistical patterns, but also to gain a richer understanding of the mechanisms underlying these associations. These 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.

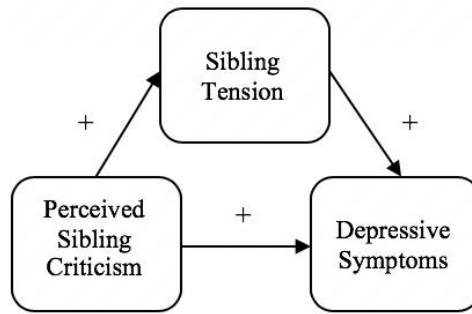


Figure 2.1 Hypothesized Relationships between Perceived Sibling Criticism, Sibling Tension, and Depressive Symptoms

Table 2.1 Descriptive Statistics (N=404 Caregivers Nested within 231 Families)

Caregiver-Level (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)
Family Characteristics (N=231)	
Sibship Size (M, SD)	3.86 (1.68)
Proportion Daughters (M, SD)	0.51 (0.28)

Table 2.2 Formal Test of the Direct and Indirect Effects of Perceived Sibling Criticism on Depressive Symptoms (N=404 Caregivers Nested within 231 families)

	B	95% CI ^a
Indirect Effect	0.51*	0.09 – 0.97
Direct effect	-0.04	-1.37 – 1.32
Total effect	0.48	-0.80 – 1.71

Note. Unstandardized coefficients with fully adjusted multilevel linear regression models.

^a95% Confidence Interval.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

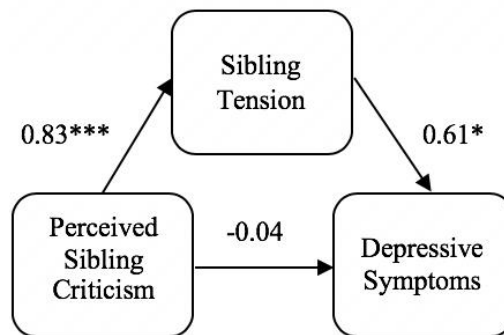


Figure 2.2 Direct and Indirect Effects of Perceived Sibling Criticism on Depressive Symptoms (N=404 caregivers nested within 231 families)

Note. Unstandardized coefficients with fully adjusted multilevel linear regression models.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

CHAPTER 3. HOW DO OWN AND SIBLINGS' GENDERS SHAPE CAREGIVERS' RISK OF PERCEIVING CARE-RELATED CRITICISM FROM SIBLINGS?

3.1 Introduction

Caring for older family members has become a focus of national attention among policy makers given concerns for the quality of life of both care recipients and caregivers (RAISE Family Caregivers Act, S. 1028, 2018). Family members, notably adult children, play a vital role in the care of older adults (Reinhard, Feinburg, Houser, Choula, & Evans, 2019). Caring for an older relative, however, can take a psychological, physical, and relational toll on family caregivers (National Academies of Sciences, Engineering, and Medicine, 2016; Pinquart & Sorensen, 2003). Not only is caregiver burden detrimental to caregivers' well-being, but it can also have negative consequences for care recipients' health outcomes; older adults whose caregivers report greater caregiver burden report worse mental health (Pristavec, 2019) and are at greater risk of mortality (Pristavec & Luth, 2020). In an effort to design interventions and programs that promote caregiver and care recipient well-being, scholars have sought to identify factors that are associated with increased caregiver burden and distress.

One of the most pursued avenues of inquiry has been how gender shapes caregiver well-being. Overall, most studies have found that women caregivers experience greater caregiver burden and psychological distress than men caregivers (Garlo, O'Leary, Van Ness, & Fried, 2010; Kim, Chang, Rose, & Kim, 2012; Pinquart & Sorensen, 2006; Riffin, Van Ness, Wolff, & Fried, 2019). Of the studies that specifically considered the experiences of adult children providing parent care, the same pattern generally emerged, with daughters experiencing greater

caregiver stress and burden than sons (Chappel, Dujela, & Smith, 2015; Horowitz, 1985; Kim, Baker, & Spillers, 2007; Raschick & Ingersoll-Dayton, 2004).

To explain this disparity, scholars most often cite gender disparities in what some have termed “objective stressors” of caregiving (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). Daughters tend to provide more hours of care (Grigoryeva, 2017; Pinquart & Sorensen, 2006), more routine care (Matthews & Rosner, 1988; Matthews, 2002), and assist with more care tasks (Pinquart & Sorensen, 2006) than son caregivers, all factors that are associated with increased caregiver burden and distress (National Academies of Sciences, Engineering, and Medicine, 2016; Pinquart & Sorensen, 2003). Fewer scholars, however, have considered how gender may influence the “subjective stressors” experienced by adult child caregivers (Aneshensel et al., 1995), such as threats to one’s identity and self-concept.

Perceived criticism from siblings is a subjective stressor of caregiving with implications for caregivers’ self-concept, sibling relationships, and psychological well-being (Rurka, Sutor, & Gilligan, 2020). To date, however, no studies have explored how caregivers’ gender, as well as the genders of their siblings, shape risk of exposure to this stressor. In this chapter, I utilize a mixed-methods approach, which enables me to not only examine patterns of perceived sibling criticism, but also to gain a more holistic and rich understanding of the underlying social processes (Creswell & Plano Clark, 2017; Sutor & Gilligan, 2021). First, I utilize quantitative data from the Within-Family Differences Study-II to examine how caregivers’ gender, as well as the genders of their siblings, shape caregivers’ probability of perceiving criticism from siblings regarding the care that they provide their mother. I then employ qualitative data from the same sample of caregivers to identify social processes that give rise to these gendered patterns.

Drawing from theories of identity and stress, I discuss how gendered patterns of care-related criticism may contribute to disparities in caregivers' psychological well-being.

3.1.1 Caregiver Gender and Threat of Perceived Sibling Criticism

The preponderance of studies on gender and caregiving suggest that daughters and sons have different expectations for themselves and are held to different standards as caregivers. These gendered patterns are often attributed to gender socialization. From childhood, daughters are often encouraged to cultivate and value interpersonal relationships, particularly family relationships, whereas sons are encouraged to pursue and value instrumental success beyond the family (Chodorow, 1978; Gilligan 1982). Consequently, daughters are more likely than sons to perceive that they have a filial obligation to care for their parents, and sons are more likely to believe that they have “legitimate excuses” (e.g., career obligations) for limiting or avoiding parent care responsibilities (Brody, Hoffman, Kleban, & Schoonover, 1989; Finch & Mason, 1993; Folbre, 2012). These perceptions are often reinforced by others within the family and society, as individuals are likely to perceive sons' excuses for not participating in parent care to be more legitimate than daughters' excuses (Finch & Mason, 1993; Campbell & Martin-Matthews, 2003; Ingersoll-Dayton, Neal, Ha, & Hammer, 2003). In fact, one study found that, although daughters who were secondary caregivers tended to provide more care than sons who were secondary caregivers, sons were less likely to both feel guilty and to report that a sibling had tried to make them feel guilty that they were not doing more for their mother (Brody et al., 1989). Due to the higher expectations that are often placed on and internalized by daughters, it is possible that daughters are at greater risk of falling short of these expectations and, in turn, perceiving care-related criticism from siblings than sons.

On the other hand, both gender theory and empirical research suggest that women are often perceived to be more “naturally skilled at” and “suited for” care work (Cancian & Oliker, 2000; Hequembourg & Brallier, 2005; Ingersoll-Dayton et al., 2003). As a result of this gendered expectation, women are often encouraged to prioritize childcare responsibilities and to pursue care work occupations such as nursing or social work (England, 2005; Cancian & Oliker, 2000). In addition, mothers tend to have a closer relationship with and to express preferences for daughters as caregivers (Suito & Pillemer, 2006; Suito, Gilligan, & Pillemer, 2013). Given that daughters are often perceived to be more natural, experienced, qualified, and preferred caregivers, it is possible that they are perceived to better understand their mother’s care needs and preferences. As a result, daughters may be at a reduced risk of perceiving care-related criticism from their siblings.

Taken together, this body of theoretical and empirical work highlights that daughters and sons are often subject to different expectations as caregivers. I anticipate that these gendered expectations will influence how siblings assess one another’s caregiver performances. Consequently, I hypothesize that caregivers’ gender will shape their probability of perceiving care-related criticism from siblings.

3.1.2 Gender Composition of the Sibship and Threat of Perceived Sibling Criticism

When outlining their model of the caregiver stress process, Pearlin and colleagues (1990) emphasized that caregivers’ experiences and stressors are shaped not only by their own characteristics, but also by the characteristics of the larger family networks in which the caregiver and care recipient are nested. The gender-as-relational theoretical perspective (Connell, 2005; Springer, Hankivsky, & Bates, 2012) also encourages scholars to consider the larger context in which care takes place. In particular, it posits that the implications of gender are

situational and has been applied to demonstrate how one's care work is shaped, not only by one's own gender, but by the gender of others in the care network (Reczek & Umberson, 2016; Umberson, Thomeer, Kroeger, Reczek, & Donnelly, 2017). Empirically, research on parent care has shown that the gender composition of a sibship has important implications for both the division and stresses of caregiving (Grigoryeva, 2017; Matthews, 2002). Consequently, I expect that the gender composition of the sibling networks in which caregivers are embedded will influence their probability of perceiving care-related sibling criticism.

Empirical research on gender dynamics within the context of parent care offers insight into how the gender composition of the sibling networks in which caregivers are embedded might shape their likelihood of perceiving care-related criticism from siblings. According to this body of work, daughters and sons tend to have different standards for what it means to be a "good caregiver" (Hequembourg & Brallier, 2005; Matthews, 2002). For daughters, being a good caregiver often involves actively monitoring, anticipating, and providing for all of their parents' needs; for sons, being a good caregiver often means responding to parents' requests for assistance, as well as promoting their parents' autonomy and independence (Matthews, 2002). In a qualitative study of daughter and son caregivers to older parents, Matthews (2002) found that these discrepant standards regarding what it means to be a "good caregiver" lead to greater discord in mixed-gender families. Given that daughters and sons tend to have different ideas of what it means to be a good caregiver, it is possible that caregivers in mixed-gender sibships are at greater risk of perceiving criticism from a sibling who does not agree with their approach to care.

Token theory (Kanter, 1977; Turco, 2010) also offers insight into how the gender composition of a sibship may shape caregivers' risk of perceiving care-related criticism from

siblings. According to token theory, the relative proportion of different social types in a group affects the group's dynamics. In groups where one social type is greatly outnumbered (skewed groups), individuals in the minority group (tokens) tend to be subject to greater stereotyping; in addition, differences between the two groups are more likely to be exaggerated. In the context of parent care, token theory suggests that, in skewed-gender sibships, adult children may rely more heavily on gender stereotypes to shape caregiving expectations. Although in general daughters tend to be perceived as more natural, qualified, and preferred caregivers (Cancian & Olicker, 2000; Hequembourg & Brallier, 2005; Ingersoll-Dayton et al., 2003; Sutor, Gilligan, & Pillemer, 2013), token daughters in predominantly-son families may feel even more pressure to conform to these gendered expectations. Due to these concentrated gender expectations, these token daughters may be held to an even higher caregiver standard; as a result, they may be at even greater risk of falling short of their siblings' expectations and perceiving care-related criticism. On the other hand, token daughters in predominantly-son families may be seen as the clear and obvious authority on their mother's care, and thus less vulnerable to care-related criticism from siblings.

3.1.3 Other Factors Affecting Risk of Perceived Care-Related Criticism from Siblings

Previous empirical and theoretical research suggests that other caregiver and family characteristics may also influence caregivers' risk of perceiving care-related criticism from their siblings. Given research suggesting that perceived inequity in the distribution of parent care responsibilities can be a source of tension among siblings (Brody et al., 1989; Ingersoll-Dayton et al., 2003), I control for whether adult children identify as primary or secondary caregivers for their mother relative to their siblings. In light of previous research suggesting that competing obligations are often seen as "legitimate excuses" for limiting involvement in parent care

(Campbell & Martin-Matthews, 2003; Finch & Mason, 1993; Ingersoll-Dayton et al., 2003; Matthews, 2002), I control for marital status, parental status, and employment status in the quantitative analysis. In addition, adult children's geographic proximity to parents plays an important role in shaping expectations for parent care (Matthews, 2002; Ingersoll-Dayton et al., 2003; Leopold, Raab, & Engelhardt, 2014; Pillemer & Suitor, 2014); given that adult children who coreside with their mother may be perceived as having the fewest barriers to providing care, I also control for whether caregivers coreside with their mother. Finally, birth order has been shown to shape adult children's relationship with their mother and involvement in care (Suitor & Pillemer, 2007; Leopold et al. 2014); thus, birth order is also included as a covariate in the quantitative models.

3.1.4 Summary

Perceived care-related criticism from siblings is a subjective stressor of caregiving with implications for caregivers' self-concept, sibling relationships, and psychological well-being (Rurka et al., 2020). Based on theories of gender and group dynamics (Cancian & Olicker, 2000; Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010), as well as empirical work on gendered patterns and stressors of parent care (Brody, Hoffman, Kleban, & Schoonover, 1989; Ingersoll-Dayton, Neal, Ha, & Hammer, 2003; Matthews, 2002), I hypothesize that caregivers' gender, as well as the genders of their siblings, will shape their risk of exposure to this stressor. Using data from 408 caregivers nested within 231 families collected as part of the Within-Family Differences Study, I first conduct quantitative analyses to examine how caregivers' gender, as well as the gender composition of the sibship in which they are embedded, interact to shape caregivers' probability of perceiving criticism from siblings regarding the care that they provide

their mother. To shed light on the processes underlying statistical associations, I then analyze qualitative data from the same sample of caregivers.

3.2 Methods

3.2.1 Procedures

For both the quantitative and qualitative analyses, I used data collected as part of the Within-Family Differences Study. 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 2008-2011, 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/index.html> or the works of Suitor et al., 2013 and Rurka et al., 2020, 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. 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 me to contextualize the qualitative data.

3.2.2 Analytic Sample

The analytic 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 patterns of perceived sibling criticism regarding the care adult children provided their mother, caregivers had to have at least one living sibling at T2. Based on these criteria, the analytic sample for both the quantitative and qualitative analyses is comprised of 408 caregivers nested within 231 families. Refer to Table 3.1 for descriptives for the analytic sample.

3.2.3 Measures

3.2.3.1 Dependent Variable

The dependent variable for the quantitative 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?” Caregivers were coded as 1 if they perceived that at least one sibling was critical, and as 0 if they perceived that none of their siblings were critical.

3.2.3.2 Independent Variable

Adult children’s *gender* is the central independent variable; 1= daughter; 0 = son.

3.2.3.3 Moderating Variable

Gender composition of the sibship was measured as the percentage of living adult children in the family at T2 who were daughters. Families were then categorized into the following groups: 1= all sons (proportion daughters was 0); 2= predominantly sons (proportion daughters was $0.\overline{33}$ or less, but greater than 0); 3= balanced gender (proportion daughters was greater than $0.\overline{33}$ but less than $0.\overline{66}$); 4= predominantly daughters (proportion daughters was $0.\overline{66}$ or greater, but less than 1); 5= all daughters (proportion daughters was 1). Gender composition of

the sibship was categorized in this way to allow for non-linear patterns to unfold. Furthermore, by categorizing families into these theoretically and intuitively meaningful categories, it was easier to uncover and discuss patterns in the qualitative data.

3.2.3.4 Covariates

Child-Level Covariates. For *caregiver status*, 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; 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. *Birth order* was determined based on offspring's relative ages, and was coded as: 0 = youngest child, 1 = middle child, and 2 = eldest child. *Marital status* was coded as 1 = married; 0 = not married, and *parental status* was coded as 1 = parent, 0 = non-parent. *Employment status* was measured using respondents' reports of whether they were currently working at a job for pay; 1 = employed, 0 = unemployed. To measure *coresidential status*, caregivers were asked whether they lived with their mothers; 1 = coresided with mother, and 0 = did not coreside with mother.

Family-Level Covariates. *Family size* was measured as the number of living adult children in the family at T2.

3.2.4 Analytic Strategy

In this chapter, I utilize quantitative data from the Within-Family Differences Study-II to examine how caregivers' gender, and the gender composition of the sibships in which they are embedded, influence caregivers' probability of perceiving care-related sibling criticism. I then

examine qualitative data from the same sample of caregivers to help interpret the patterns identified through the quantitative analyses. By using this mixed-methods approach, I am able to discuss patterns in caregivers' experiences, while also providing a more holistic and rich understanding of the underlying social processes (Creswell & Plano Clark, 2017; Sutor & Gilligan, 2021).

3.2.4.1 Plan of Quantitative Analysis

The aim of the quantitative analysis was to explore how caregivers' gender and the gender composition of the sibship in which they are embedded interact to shape caregivers' probability of perceiving sibling criticism regarding their caregiver performance. To achieve this aim, I fit a multilevel logistic regression model predicting perceived sibling criticism. Multilevel modeling is used because caregivers are nested within families, and thus observations are not independent. To assess how caregivers' gender and the gender composition of their sibship interact to shape caregivers' predicted probability of perceiving sibling criticism, an interaction term for the two variables is included in the model. Given the dependent variable in this analysis is categorical, predicted probabilities and average marginal effects (AME) are calculated to test the interaction (Mize, 2019). To address the random intercept in the model, random effects are integrated out as recommended by Bland and Cook (2019). Listwise deletion was used to handle missing data because there were less than 1% missing on any variable in the analysis (Allison, 2010). The analyses were conducted using Stata 16.

3.2.4.2 Plan of Qualitative Analysis

The aim of the qualitative analysis was to gain insight into social norms and processes underlying the patterns identified in the quantitative analyses. Using the sibship gender

composition variable, I grouped caregivers into the following categories: all-son, predominantly-son, balanced, predominantly-daughter, and all-daughter families. I compared the experiences and perspectives of sons and daughters both across family categories, but also within the same family category. In particular, I compared how caregivers' descriptions of caregiving expectations, the division of care, and care-related criticism and tension varied depending on their own gender and the gender of their siblings. To do so, I examined the full transcripts from the interviews of each caregiver, taking into consideration their responses to open-ended questions and any relevant comments made throughout the interviews. Some open-ended responses that proved to be particularly useful include caregivers' explanations of why they or a sibling provided "the most help to your mother" or was the one their mother would "prefer to help her." In addition, important insights were often derived from caregivers' responses to what their sibling(s) "has/have said or done" to make them perceive that they were supportive or critical of "how you help or the amount of time you spend helping," as well as why the caregiver was critical of the "ways in which your sibling/siblings helped your mother, including how they/he/she helped or the amount of time spent helping."

The qualitative data were analyzed according to the "immersion/crystallization" method for coding and analyzing data (Borkan, 1999), which involves an iterative process of immersion in the data and reflection on emergent themes. I began by immersing myself in the transcripts, identifying themes that emerged that might help to explain the relationship between caregiver gender, gender composition of the sibship, and perceived sibling criticism. I then reflected on the emergent patterns in light of theories of gender and group processes. Based on this reflection, I developed a more focused set of codes that was informed by theory and useful for explaining the quantitative findings. I continued to refine the codes through this iterative process of immersion

and crystallization until no new themes emerged and the set of codes seemed to provide a cohesive and compelling interpretation for the quantitative findings. All adult children included in the qualitative analysis were caregivers, and all names presented in the results are pseudonyms.

3.3 Results

3.3.1 Quantitative Findings

Table 3.2 presents caregivers' predicted probabilities of perceiving care-related criticism from siblings by gender and gender composition of the sibship, controlling for covariates. Daughters in predominantly-son sibships were significantly less likely to perceive sibling criticism than daughters in families with a higher proportion of daughters. Daughters in predominantly-son families had a 3% predicted probability of perceiving sibling criticism, compared to 14% for daughters in balanced-gender families ($AME^2 = -0.11, p < 0.05$), 15% for daughters in predominantly-daughter families ($AME = -0.12, p < 0.05$), and 25% for daughters in all-daughter families ($AME = -0.22, p < 0.01$). Not only were daughters in predominantly-son families less likely to perceive sibling criticism than daughters in families with a higher proportion of daughters, but they were also less likely to perceive sibling criticism than sons in predominantly-son families ($AME = -0.15, p < 0.05$).

As shown in Table 3.2, the predicted probability of perceiving sibling criticism was highest for sons in predominantly-son sibships (18%) and lowest for sons in predominantly-daughter sibships (5%), although this difference was not statistically significant. This likely is in

² Average marginal effects (AMEs) are the difference in the predicted probabilities of two groups. In this instance, an AME of -.11 indicates that daughters in predominantly-son families had a predicted probability of perceiving sibling criticism that was 11 percentage points lower than that of daughters in balanced families.

part a reflection of the fact that these analyses were less powered to detect significant differences for sons. Future studies should further explore the implications of gender composition of the sibship for sons' probability of perceiving sibling criticism.

Figure 3.1 demonstrates how gender and gender composition of the sibship interact to shape caregivers' predicted probability of perceiving care-related criticism from siblings. For daughters, the predicted probability of perceiving sibling criticism increased as the proportion daughters in the sibship increased. Among sons, predicted probabilities suggested that the relationship between proportion daughters in the family and probability of perceiving sibling criticism does not follow as linear of a pattern.

3.3.2 Qualitative Findings

I then turned to the qualitative data to gain insight into why daughters in predominantly-son families had a notably lower probability of perceiving care-related criticism than daughters in families with a higher proportion of daughters.

In all mixed-gender family types, daughters noted gender as a factor that shaped caregiving expectations and the division of parent care. What made the dynamics in predominantly-son sibships unique was that, as a token daughter in a family dominated by sons, gendered stereotypes and expectations were more likely to be concentrated on a single daughter or pair of daughters. Due to these concentrated expectations, some of the daughters in these families described that, of their siblings, they were “naturally” best-suited to the caregiver role:

I am the only girl and I think, you know, my mother helped her mother the most... and it would just seem natural.

I would be the person whose, I've seen this happen in the past, it would be a natural, uh—that role would be consistent with what would be the expected role that a female person would take in our family—that a daughter would play. Just

as my mother did for her mother, that would be the expectation. And I would distinguish that also from a daughter-in-law. Daughter-in law does not count, it's got to be the daughter. (laughs)

Um, being an only female child, I have to take a lot of responsibility and also living in close proximity to her, I am a natural person to help her.

In families with a higher proportion of daughters, daughters also perceived that their mothers and siblings expected more from them as caregiver because they were daughters. However, these expectations were more likely to be shared among multiple siblings. For example, when asked who she perceived her mother would prefer as a caregiver, one daughter in a balanced-gender family said:

I think she would happily take any one of the girls. Any one of the girls would be fine; she would choose any one of them.

Another daughter from a balanced-gender family described how gender shaped her siblings' caregiving expectations:

The girls, you know, we all took our part when she got sick. They were very supportive – if I couldn't be there, they could be there. Someone was always there. I just want to add that the boys expected girls to take care of mom (laugh).

In addition to explicit mentions of gender, daughters in all family types described that they were held to a higher standard of care due to factors that have been identified as highly gendered, such as their relationship with their mother, their “caring” and “nurturing” personalities, and experience with care work (as a nurse, social worker, etc.) (Cancian & Oliker, 2000; England, 2005; Gilligan, 1982; Ingersoll-Dayton et al., 2003; Suitor & Pillemer, 2006). Given that these factors are gendered, they often combined to set token daughters in predominantly-son sibships even further apart as the best-suited, and thus natural choice for primary caregiver. This was evidenced by the fact that daughters in these families often

described that there were multiple factors that made them the best-suited for the role of primary caregiver:

I'm the daughter, I'm very close with her, I'm a registered nurse and she's my best friend.

I guess I would have to say that they um they look to me to be that support role, because uh, I am the oldest girl, but uh I'm also a nurse, and uh I have that type of personality, I guess.

As a result, in predominantly-son families there appeared to be more consensus about who was the mother's preferred caregiver, as well as which child was best-suited for the role: the token daughter(s). These daughters were often expected to take a lead role in their mother's care, but also faced fewer challenges regarding their care decisions and approaches to care. This was highlighted by the ways in which daughter caregivers in these families often described their brothers as passive, thankful supporters:

They find comfort knowing that I am handling a certain situation like for instance when I take her to the hospital, they don't, they don't come but they know that she is in good hands and that she is being well taken care of and so they find comfort in that. That goes for my dad too. And they let me know that, you know, that they are appreciative of that. You know, it is less stress for them. I just call them when it is over, they love it.

I mean if I say I need help here or with this they will do it. They realize I do it and like if I can't bring my daughter over because that is too much on her they will take her or if I can't come and do this they will step in. They help me support her, you know what I am trying to say.

Um, you know, they help out when they can but they just give me encouragements and thank me for keeping informed about what has been going on.

In contrast, in families with a higher proportion of daughters, adult children were less able to rely on gender and gender stereotypes to ascribe caregiver roles and expectations. In turn, caregivers in these families rarely identified a single adult child as the "natural authority" on their mother's needs and care. This likely contributed to the finding that, in families with a

higher proportion of daughters, a greater percentage of daughters perceived criticism rooted in disagreements regarding the appropriate amount and intensity of care that their mothers should receive. For example, Jennifer, a daughter caregiver in an all-daughter family, explained that she and her sister had different perspectives on the appropriate level of care for their mother. She perceived that her sister Laura was critical because “sometimes she will say she thinks I am doing too much,” but Jennifer was adamant, “I am not.” Jennifer shared that, although her sister had a medical background, she felt that her mother preferred her approach to care because “um again, I am just more sympathetic. I am closer to her.” Given her relationship with her mother, Jennifer maintained that she better understood her mother’s needs. However, it is possible that her sister, Laura, felt that she better understood their mother’s needs and was qualified to criticize Jennifer’s approach to care given her medical background.

In families with a higher proportion of daughters, some daughter caregivers also described how different “camps” had formed in the family, with different and sometimes contradictory perspectives on their mother’s care. For example, Clarissa, a daughter caregiver in a balanced gender family, described that “there are like two camps in the family.” She said that one sister “totally spoils” their mother and “will focus everything on her,” and her other sister had “unrealistic expectations” for Clarissa as a caregiver. Clarissa felt that her brother Peter, however, is on her side. For example, she described that Peter shared her view that her sister was too involved in their parents’ care:

Well, Karen is the one who calls every hour to my parents and so she is overly involved. In fact my brother and I have said, this is very weird, you know, she is overly involved in everything they do and I work with a lot of multi-handicap, well my parents aren’t that bad that they need that intervention and I think she tries to helicopter manage them and in fact they do very well.

Whereas Clarissa maintained that her experience with care work made her better positioned to understand her mother's needs, her sister Karen suggested that, based on what her mother had confided in her, she better understood their mother's preferences:

Just because you know, for instance... when my dad has gotten sick and been in the hospital and she would say what would I do without you, you know. Cause like I said, my siblings won't help her with her colostomy bag or anything... They don't feel they should have to do that and you know, my mother is the type of person who accepts us for who we are and what we can do.

Overall, a greater percentage of daughters in higher proportion-daughter families perceived care-related criticism because they and at least one sibling held conflicting views regarding the appropriate amount of or approach to care for their mother. As these cases demonstrated, perceived criticism often revealed a lack of consensus among siblings regarding who best understood their mother's care needs and preferences. In comparison, in predominantly-son families, token daughters described greater consensus among siblings that they had more authority when it came to their mother's care, both due to their gender and to gendered characteristics. As such, daughter caregivers in these families tended to perceive higher caregiver expectations, but also to face fewer challenges from siblings regarding their approach to care.

3.4 Discussion

Caregivers are often described as the "backbone" of healthcare in the United States. However, caregiving often takes a toll on caregivers' psychological well-being (National Academies of Sciences, Engineering, and Medicine, 2016). In order to understand and address the stress experienced by caregivers, it is important to consider the family context in which caregiving occurs (Pearlin et al., 1990; Aneshensel et al., 1995; Koehly et al., 2015; Pillemer &

Gilligan, 2018). Within the context of parent care, it is important to consider how the sibling networks in which caregivers are embedded may exacerbate or alleviate their psychological distress (Ingersoll-Dayton et al., 2003; Matthews, 2002).

Theories of identity and stress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013) provide a useful framework for understanding how siblings affect one another's psychological well-being during parent care. These theories suggest that perceived care-related criticism from siblings can threaten caregivers' ability to maintain their identity as a "good caregiver." In fact, perceived care-related criticism from siblings has been identified as a subjective stressor with detrimental implications for caregivers' sibling relationships, and in turn their psychological well-being (Rurka et al., 2020). Given these implications for caregivers' psychological and relational well-being, it is important to understand which caregivers are at greater risk of perceiving care-related criticism from their siblings. In this chapter, I utilized a mixed-methods approach to explore how caregivers' gender, as well as the gender composition of the sibling networks in they are embedded, shape their risk of perceiving care-related criticism from siblings.

Consistent with theories of tokenism (Kanter, 1977; Turco, 2010), quantitative analyses revealed that caregivers' own gender, as well as the genders of their siblings, had implications for caregivers' risk of perceiving that their siblings were critical of the care that they provided their mother. In particular, token daughters in predominantly-son families had a notably lower risk of perceiving care-related criticism than daughters in families with a higher proportion of daughters. To shed light on the processes underlying this pattern of findings, I then examined the qualitative data from the same sample of caregivers.

Consistent with previous work on gendered caregiving dynamics, adult children in all mixed-gender families described that daughters were expected to assume a greater role in their

mother's care. Daughters were perceived to be better-suited for the caregiver role specifically because of their gender, as well as because of highly gendered factors such as their relationship with their mother, "caring" and "nurturing" personalities, and experience with care work (Cancian & Olicker, 2000; England, 2005; Gilligan, 1982; Ingersoll-Dayton et al., 2003; Suitor & Pillemer, 2006). However, consistent with token theory (Kanter, 1977; Turco, 2010), adult children in predominantly-son families tended to rely more heavily on these gender stereotypes to shape caregiver expectations. As a token in these families, daughters were often cast as the most qualified and "natural" caregiver in the family, and therefore the clear authority on their mother's care. As a result, daughters in these families often perceived higher caregiver expectations, but also faced fewer challenges from siblings regarding their approach to care. In contrast, adult children in families with a higher proportion of daughters were less able to rely solely on gender stereotypes to shape caregiving expectations. As a result, there tended to be less consensus among siblings regarding who best understood their mother's care needs and preferences, and higher rates of perceived sibling criticism among daughters.

These findings demonstrate that the stressors experienced by daughters providing parent care depend on the genders of their siblings. To date, studies have examined the implications that own and siblings' genders have for the objective stressors of caregiving (i.e. hours of care) (Hou, Rurka, & Peng, 2021; Gerstel & Gallagher, 2001; Grigoryeva, 2017; Tolkacheva, van Groenou, & van Tilburg, 2010; Wolf, Freedman, & Soldo, 1997). Within the context of the United States, most of these studies conclude that the more sisters one has, the more assistance one has with the objective demands of caregiving (Gerstel & Gallagher, 2001; Grigoryeva, 2017; Wolf, Freedman, & Soldo, 1997). Based on this literature alone, one might conclude that daughters in families with a high proportion of daughters have a lower risk of caregiver burden and

psychological distress. However, as the proportion of daughters in a family increases, daughters are at greater risk of perceiving a subjective stressor of caregiving: care-related criticism from siblings. This information is useful for those that provide support to caregivers; in particular, it encourages these stakeholders to consider not only how objective stressors, but also how subjective stressors contribute to caregiver burden and psychological distress. Furthermore, by understanding which caregivers are at greater risk of perceiving care-related criticism from siblings, health care professionals and others who serve caregivers will be better able to identify and address the needs of those experiencing this family-related stressor.

This chapter points to several promising avenues for future research and intervention. It demonstrates that the stressors that caregivers experience vary depending on the sibling and family networks in which they are embedded. Future research should explore how other aspects of family context, such as within-family differences in parent-child relationships, shape caregivers' risk of perceiving care-related criticism from siblings. By identifying conditions within a family that place caregivers at greater risk of perceiving care-related criticism from siblings, health care professionals and others serving this population will be better able to identify and address the needs of these caregivers. In addition, most interventions that aim to promote the well-being of caregivers focus exclusively on the caregiver or the caregiver-care recipient dyad without considering the family context in which the pair is embedded (Pillemer & Gilligan, 2018). These findings demonstrate the importance of designing interventions that acknowledge the role that other family members play in alleviating or exacerbating caregivers' psychological distress. It also highlights the value of designing interventions that can be tailored based not only on caregivers' and care recipients' characteristics, but also on the characteristics of the family networks in which they are embedded.

In this chapter, I explore how caregivers' gender, as well as the genders of their siblings, influence caregivers' likelihood of perceiving that their siblings are critical of the care that they provide their mother. I maintain that the focus on perceived criticism regarding mothers' care is warranted given research showing that adult children tend to play a much larger role in their mothers' care than in their fathers' care (Feld, Dunkle, Schroepfer, & Shen, 2006; Katz, Kabeto, & Langa, 2000). It is possible, however, that the patterns of perceived criticism regarding fathers' care would be different. For instance, it is possible that daughters are not perceived to be as "qualified" or "natural" of a caregiver for fathers given that it is a cross-gender tie. Future research should consider how caregivers' gender, as well as the genders of their siblings, influence caregivers' likelihood of perceiving that their siblings are critical of the care that they provide their father.

Additionally, in these analyses, I examined how caregivers' likelihood of *perceiving* care-related criticism from siblings is shaped by their own gender and the genders of their siblings. This decision to focus on caregivers' perceptions is consistent with theories of identity and stress, which assert that perceptions of critical feedback are consequential for psychological distress, regardless of whether those perceptions reflect reality (McCall & Simmons, 1966; Stets, 2018). However, caregivers may perceive criticism from siblings when their siblings are not actually critical, or they may fail to perceive their siblings' criticism. It is possible that the pattern of findings would be different if actual care-related criticism from siblings, rather than perceived care-related criticism from siblings, was considered. Future research should explore how caregivers' gender, as well as the genders of their siblings, shape the likelihood that a sibling reports that they are critical of the care that the caregiver provides.

Finally, in this chapter, I utilized a mixed-methods approach to examine how caregivers' gender, as well as the genders of their siblings, shape caregivers' probability of perceiving criticism from siblings regarding the care that they provide their mother. The Within-Family Differences Study-II is an ideal dataset for these analyses for a number of reasons. As part of the study, both quantitative and qualitative data were collected from a large, probability sample of adult children from over 500 families. Adult children were asked to describe their sibling relationships and interactions within the context of their mother's care; in addition, rich data were collected on the family and sibling context in which these caregivers were situated. As with many studies of caregiving (Gitlin, Marx, Stanley, & Hodgson, 2015), however, men providing care were less likely to participate in the WFDS, and therefore the analyses are less powered to detect significant differences for sons. Future studies should further explore the implications of gender composition of the sibship for sons' probability of perceiving sibling criticism.

3.5 Conclusion

In their model of the caregiver stress process, Pearlin and colleagues (1990) maintained that caregivers' stress and psychological well-being are influenced by the family networks in which they are embedded. In this chapter, I extend this line of work by exploring how the gender composition of the sibling networks in which caregivers are embedded shapes their likelihood of perceiving care-related criticism from siblings, a subjective stressor of caregiving with implications for caregivers' relational and psychological well-being (Rurka et al., 2020). As hypothesized based on theories of gender socialization and principles of tokenism (Cancian & Olicker, 2000; Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010), daughters' risk of perceiving this stressor varied depending on the genders of their siblings. This finding underscores the importance of considering how caregivers' characteristics interact with

characteristics of the sibling networks in which they are situated to shape the stressors and psychological consequences of parent care. In addition, this work builds on a growing body of scholarship demonstrating the value of utilizing a mixed-methods approach to gain a nuanced understanding of complex family processes (Suitor & Gilligan, 2021).

Table 3.1 Descriptive Statistics (N=408 Caregivers Nested within 231 Families)

Caregiver-Level	(N=408)
Perceived Sibling Critical (%)	14.71
Daughter (%)	62.25
Primary Caregiver (%)	46.57
Married (%)	73.04
Parent (%)	78.68
Employed (%)	80.15
Coreside (%)	11.27
Birth order	
Youngest (%)	25.25
Middle (%)	44.85
Eldest (%)	29.90
Family Characteristics	(N=231)
Sibship Size (M, SD)	3.86 (1.68)
Gender Composition of the Sibship	
All Sons (%)	9.96
Predominantly Sons (%)	21.65
Balanced Gender (%)	34.20
Predominantly Daughters (%)	22.08
All Daughters (%)	12.12

Table 3.2 Predicted Probability of Perceiving Sibling Criticism by Caregiver Gender and Gender Composition of the Sibship

		Predicted Probability of Sibling Criticism (95% CI)	
		Caregiver Gender	
		Son	Daughter
Gender Composition of the Sibship	All Sons	0.12 (0.01- 0.23)	N/A
	Predominantly Sons	0.18 (0.07- 0.29) ^a	0.03 (-0.03- 0.09) ^{abcd}
	Balanced	0.17 (0.07- 0.26)	0.14 (0.06- 0.21) ^b
	Predominantly Daughters	0.05 (-0.05- 0.16)	0.15 (0.07- 0.22) ^c
	All Daughters	N/A	0.25 (0.12- 0.39) ^d

Note: Findings are presented as predicted probabilities of perceiving care-related sibling criticism, controlling for primary caregiver status, birth order, marital status, parental status, employment status, whether the adult child coresided with their mother, and sibship size. Superscripts indicate instances in which the average marginal affect (the difference between two predicted probabilities), is significant ($p < 0.05$). For example, the ^a superscripts indicate that daughters in predominantly-son families have a significantly lower predicted probability of perceiving care-related sibling criticism than sons in predominantly-son families.

All-sons refers to sibships with a proportion daughters of 0. Predominantly-sons refers to sibships with a proportion daughters of 0.33 or less, but greater than 0. Balanced refers to sibships with a proportion daughters greater than 0.33 but less than 0.66. Predominantly-daughters refers to sibships with a proportion daughters of 0.66 or greater, but less than 1. All daughters refers to sibships with a proportion daughters of 1.

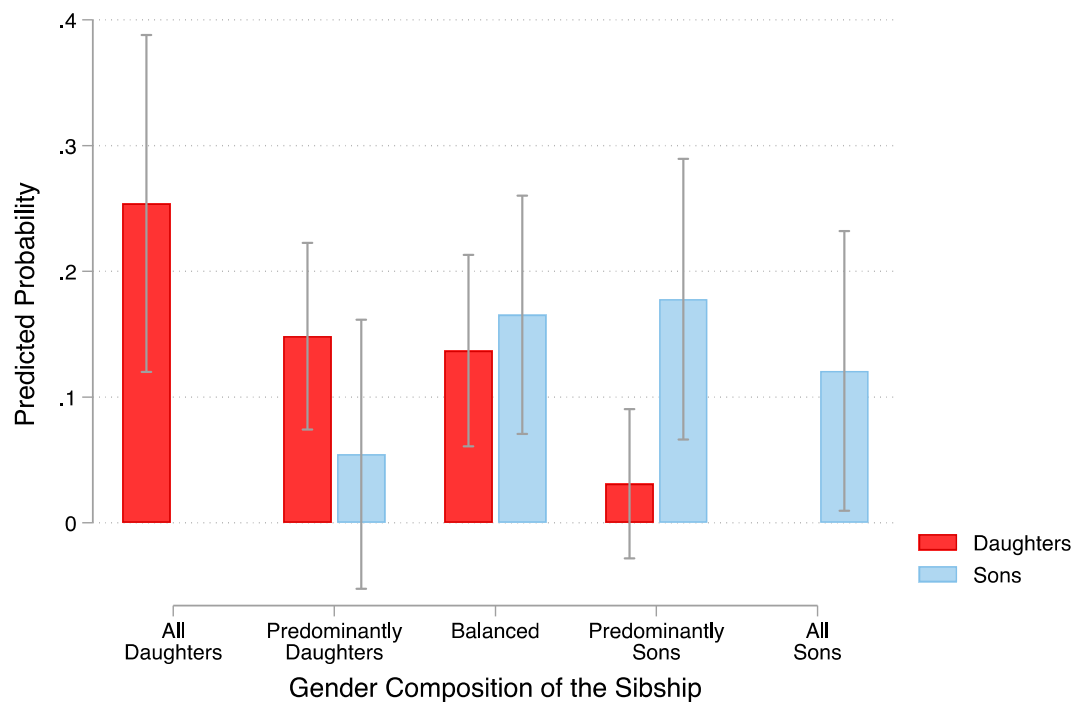


Figure 3.1 Predicted Probability of Perceiving Sibling Criticism by Caregiver Gender and Gender Composition of the Sibship

Note: All-sons refers to sibships with a proportion daughters of 0. Predominantly-sons refers to sibships with a proportion daughters of 0.33 or less, but greater than 0. Balanced refers to sibships with a proportion daughters greater than 0.33 but less than 0.66. Predominantly-daughters refers to sibships with a proportion daughters of 0.66 or greater, but less than 1. All daughters refers to sibships with a proportion daughters of 1. Controlling for primary caregiver status, birth order, marital status, parental status, employment status, whether the adult child coresided with their mother, and sibship size.

CHAPTER 4. CONCLUSION

When outlining the caregiver stress process model, Pearlin and colleagues (1990) described family context as an important factor that can mitigate or compound the stresses and psychological consequences of caregiving. Although siblings represent central members of caregivers' social networks (Antonucci, Akiyama, & Takahashi, 2004; Bedford & Avioli, 2012), there has been limited attention to how siblings affect one another's well-being during parent care. The central aim of this dissertation was to explore mechanisms through which sibling context may contribute to caregivers' psychological distress. Inspired by theories of identity and stress (e.g. Burke, 1991; McCall & Simmons, 1966; Stets, 2018; Stets, Savage, Burke, & Fares, 2020), I explored whether perceiving care-related criticism from siblings has negative implications for caregivers' psychological well-being. I then drew from theories of gender socialization and group dynamics (e.g. Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010) to explore how caregivers' and their siblings' genders shape caregivers' risk of perceiving care-related criticism from siblings. By understanding the patterns and consequences of perceived care-related criticism from siblings, policymakers and practitioners will be better positioned to identify and address caregivers' socio-emotional needs.

4.1 Discussion of Findings

4.1.1 Consequences of Perceived Care-Related Criticism from Siblings

In Chapter 2, I examined the implications of perceived care-related criticism from siblings for caregivers' depressive symptoms. Drawing from theories of identity and stress, I proposed two mechanisms through which this perceived criticism from siblings could influence caregivers' depressive symptoms. First, according to theories of identity maintenance,

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 and they experience psychological distress (Burke, 1991; Stets, 2018; Stets & Serpe, 2013). Within the context of parent care, I anticipated that perceived sibling criticism would threaten an adult child's ability to maintain their identity as a "good caregiver," which would be psychologically distressing for caregivers. Thus, I hypothesized that perceived sibling criticism would be directly associated with higher depressive symptoms.

Identity scholars have also noted, however, that individuals can utilize a number of strategies to maintain their identity and protect their psychological well-being despite threatening feedback; for example, they may discredit the source of the feedback or blame others for their lackluster performance (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 the threatening feedback; in turn, both theoretical and empirical work suggests that this relationship tension can represent a source of psychological distress (Pearlin et al., 1990; Strawbridge & Wallhagen, 1991; Sutor et al., 2018). Consequently, my second hypothesis was that perceived sibling criticism would be associated with depressive symptoms indirectly through sibling tension. In particular, in an effort to maintain their identity as a good caregiver, I anticipated that caregivers would employ strategies that fueled tension with their siblings, and this higher sibling tension would be associated with higher depressive symptoms.

Quantitative analyses confirmed that perceiving care-related criticism from siblings had negative implications for caregivers' depressive symptoms. As hypothesized, mediation analyses

suggested that perceived sibling criticism was associated with caregivers' depressive symptoms indirectly through sibling tension. 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 my expectations, however, perceived sibling criticism was not directly associated with depressive symptoms.

I then analyzed qualitative data from the same sample of caregivers to gain insight into why perceived sibling criticism was not directly associated with depressive symptoms, but rather operated through sibling tension. These analyses revealed that most caregivers employed psychological and behavioral strategies to either invalidate their siblings' criticisms or limit the impact of these criticisms on their psychological well-being. There were two strategies in particular that seemed to have the potential to fuel tension in caregivers' relationships with their siblings. First, caregivers would react to their siblings' criticisms by pointing out ways in which they felt that their siblings' caregiver performances were inferior to their own. Caregivers may have utilized these contrasts as evidence that they were a good caregiver, at least relative to their siblings. Second, caregivers would discount the validity of their siblings' criticism, maintaining that their criticism was not indicative of the caregiver's shortcomings, but rather of the siblings' own insecurities and inadequacies as a caregiver. Although both of these strategies may have allowed these adult children to better maintain their identity as a good caregiver, it is possible that criticizing their siblings' care and discounting their siblings' perspectives in this way resulted in greater sibling tension and, in turn, more depressive symptoms.

Taken together, these findings offer valuable insight into mechanisms through which family context can influence caregivers' psychological well-being. In this study, perceived care-

related criticism from siblings was identified as a subjective stressor of caregiving that can fuel sibling conflict and, in turn, depressive symptoms. These results are consistent with Pearlin and colleagues (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. By understanding the connection between perceived criticism from siblings, sibling conflict, and caregivers' depressive symptoms, those that serve caregivers will be better positioned to identify and address this potential source of psychological distress among caregivers. An important next step is to identify family caregivers who are at the greatest risk of experiencing this family-related stressor, and thus in greatest need of intervention and support.

4.1.2 Gendered Patterns of Perceived Care-Related Criticism from Siblings

In Chapter 3, I examined the role that gender plays in shaping caregivers' risk of perceiving care-related criticism from siblings. Drawing from theories of gender and group dynamics (Cancian & Olicker, 2000; Chodorow, 1978; Gilligan 1982; Kanter, 1977; Turco, 2010), as well as empirical work on gendered patterns and stressors of parent care (Brody, Hoffman, Kleban, & Schoonover, 1989; Grigoryeva, 2017; Matthews, 2002), I anticipated that caregivers' probability of perceiving sibling criticism would depend on their own gender, as well as the gender of their siblings. Consistent with these expectations, I found that daughters in predominantly-son families had a notably lower risk of perceiving care-related criticism than daughters in families with a higher proportion of daughters.

To shed light on social processes that give rise to these gendered patterns, I then examined the qualitative data from the same sample of caregivers. Consistent with previous work on gendered caregiving dynamics, adult children in all mixed-gender families described that daughters were expected to assume a greater role in their mothers' care. Daughters were

perceived to be better-suited for the caregiver role specifically because of their gender, as well as because of highly gendered factors such as their relationship with their mother, “caring” and “nurturing” personalities, and experience with care work (Cancian & Olicker, 2000; England, 2005; Gilligan, 1982; Sutor & Pillemer, 2006). However, consistent with principles of token theory (Kanter, 1977; Turco, 2010), adult children in predominantly-son families tended to rely more heavily on these gender stereotypes to shape caregiver expectations. As a token in these families, daughters were often cast as the most qualified and “natural” caregiver in the family, and therefore the clear authority on their mother’s care. As a result, daughters in these families often perceived higher caregiver expectations, but also faced fewer challenges from siblings regarding their approach to care. In contrast, adult children in families with a higher proportion of daughters were less able to rely solely on gender stereotypes to shape caregiving expectations. As a result, there tended to be less consensus among siblings regarding who best understood their mother’s care needs and preferences, and higher rates of perceived sibling criticism among daughters.

Overall, these findings highlight the important role that gender plays, not only in shaping objective stressors of caregiving (i.e. hours of care, types of care provided), but also in shaping a subjective stressor of caregiving: perceived care-related criticism from siblings. Furthermore, these results underscore the importance of considering how characteristics of the sibling networks in which caregivers are embedded, such as gender composition, can shape the experiences and stressors of parent care. Previous work has suggested that daughters with more sisters tend to have greater assistance with the objective demands of caregiving (Gerstel & Gallagher, 2001; Grigoryeva, 2017; Wolf, Freedman, & Soldo, 1997). Although daughters in families with a high proportion of daughters may experience fewer objective stressors of parent

care, this study suggests that they are at an elevated risk of experiencing perceived criticism from siblings, a subjective stressor with negative implications for their sibling relationships and psychological well-being (Rurka et al., 2020). This information is useful for health care professionals and other stakeholders who provide support to caregivers; in particular, it encourages these providers to consider not only how objective stressors, but also how subjective stressors contribute to daughters' caregiver burden and psychological distress. Furthermore, these findings could be used to better identify and address the needs of caregivers experiencing this family-related stressor.

4.2 Future Directions

The findings of this dissertation point to several promising directions for future research. First, this research 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 performance and disparaging their siblings' perspectives—behaviors that could fuel sibling tension and, in turn, have negative implications for caregivers' psychological well-being. Drawing from identity theory (McCall & Simmons, 1966; Stets, 2018; Stets et al., 2020), I argue that these reactions to perceived sibling criticism could be motivated by caregivers' desires to defend their identities as good caregivers. However, findings point to other strategies that caregivers could employ to maintain their identities as good caregivers 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. 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. Encouraging adult children to be more vocal about the positive aspects of their siblings' caregiver performances could also be a promising intervention, and should be explored.

In their model of the caregiver stress process, Pearlin and colleagues (1990) emphasized that characteristics of the caregiver and of the family networks in which they are embedded, represent important context for understanding variability in the psychological consequences of caregiving. Consistent with this theoretical assertion, caregivers' risk of perceiving care-related criticism from siblings was found to be shaped by their gender, as well as the gender of their siblings. Future research should explore how other aspects of family context, such as within-family differences in parent-child relationships, shape caregivers' risk of perceiving care-related criticism from siblings. By understanding which caregivers are at the greatest risk of perceiving care-related criticism from siblings, social workers and others who serve caregivers will be better able to identify and address the needs of those experiencing this family-related stressor.

In this dissertation, I explored the consequences and patterns of *perceived* care-related criticism from siblings. This decision to focus on caregivers' perceptions is consistent with theories of identity and stress, which assert that perceptions of critical feedback are consequential for psychological distress, regardless of whether those perceptions reflect reality (McCall & Simmons, 1966; Stets, 2018). Nonetheless, it is important to note that caregivers may perceive criticism from siblings when their siblings are not actually critical, or they may fail to perceive their siblings' criticisms. 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 towards caregivers or feel that caregivers are not responding to their feedback. Future research should explore the extent to which perceived criticism from siblings regarding one's caregiver performance reflects siblings' actual assessments, as well as compare the implications of perceived and actual sibling criticism for caregivers' sibling relationships and psychological well-being. In addition, it is possible that caregiver and family characteristics that are associated with increased risk of perceived care-related criticism from siblings are different than those associated with actual care-related criticism from siblings. Future research should explore how caregivers' gender, as well as the genders of their siblings, shape the likelihood that a sibling reports that they are critical of the care that the caregiver provides.

Additionally, this study focuses on patterns and consequences of perceiving criticism from siblings regarding the care that one provides his or her mother. I maintain that the focus on perceived criticism regarding mothers' care is warranted given research showing that adult children tend to play a much larger role in their mothers' care than in their fathers' care (Feld, Dunkle, Schroepfer, & Shen, 2006; Katz, Kabeto, & Langa, 2000). However, it is important to acknowledge that the care that children provide their fathers may also shape their caregiver identity, as well as siblings' assessments of their caregiver performance. For instance, it is possible that daughters are not perceived to be as "qualified" or "natural" of a caregiver for fathers given that it is a cross-gender tie. Future research should consider how caregivers' probability of perceiving criticism from siblings, their reactions to this perceived criticism, and the psychological consequences vary depending on whether the criticism is regarding the care that they provide their mother, their father, or both parents.

There are a couple of limitations of these analyses that point to directions for future research. First, cross-sectional data was used to examine the relationships between perceived sibling criticism, sibling tension, and depressive symptoms. Mediation analyses suggest that perceived sibling criticism was associated with higher sibling conflict, which in turn was associated with higher depressive symptoms. Although both theory and the qualitative analysis lend support to the conclusion that perceived sibling criticism is indirectly associated with depressive symptoms through its effect on sibling tension, future researchers should investigate the directionality underlying these associations utilizing longitudinal data. Second, as with many studies of caregiving (Gitlin, Marx, Stanley, & Hodgson, 2015), men providing care were less likely to participate in the Within-Family Differences Study-II. As a result, the analysis examining the implications of caregivers' and siblings' genders on caregivers' probability of perceiving care-related criticism from siblings was less powered to detect significant differences for sons. Future studies should further explore the implications of gender composition of the sibship for sons' probability of perceiving sibling criticism.

4.3 Summary

In their model of the caregiver stress process, Pearlin and colleagues (1990) emphasized the important role that family context plays in shaping the stressors and psychological consequences of caregiving. To date, however, there has been limited attention to how siblings affect one another's well-being during parent care, despite the fact that a caregiver's siblings often represent significant and enduring ties for both the caregiver and the parent receiving care (Antonucci, Akiyama, & Takahashi, 2004; Bedford & Avioli, 2012). In this dissertation, I adopted an innovative lens to explore mechanisms through which sibling context influences caregivers' psychological well-being. Drawing from theories of identity and stress, I identified

perceived care-related criticism from siblings as a subjective stressor of caregiving that is not directly associated with caregivers' depressive symptoms, but rather operates through its association with sibling tension. This finding demonstrates how sibling conflict can represent a secondary stressor, or an indirect consequence of caregiving that can magnify the psychological toll of parent care (Aneshensel et al., 1995).

Given the implications of perceived care-related criticism from siblings for caregivers' relational and psychological well-being, it is important to understand which caregivers are at greatest risk of experiencing this subjective stressor. Building upon theories of gender and group dynamics, as well as empirical work on gendered patterns and stressors of parent care, I examined whether caregivers' gender, as well as the genders of their siblings, influenced caregivers' probability of perceiving care-related criticism from siblings. Daughters in families with a high proportion of daughters were found to be at greater risk of experiencing this stressor than daughters in families of predominantly sons. This finding underscores the importance of considering how caregivers' characteristics interact with characteristics of the sibling networks in which they are embedded to shape the stressors and psychological consequences caregivers' experience.

Taken together, this dissertation has important implications for theory, research, and practice. As part of this work, I applied an innovative lens, theories of identity and stress, to identify a stressor of parent care with implications for caregivers' relational and psychological well-being. Quantitative and qualitative analyses revealed the influence that identity processes, as well as the sibling networks in which caregiving takes place, have in shaping the experiences and consequences of parent care. This work builds on a growing body of scholarship demonstrating the value of utilizing a mixed-methods approach to gain a nuanced understanding

of complex family processes (Suitor & Gilligan, 2021). In addition, it points to promising avenues for future research; for example, it offers insights that could be utilized to design interventions that enable caregivers to effectively cope with perceived criticism without resorting to strategies that fuel sibling tension and, in turn, proliferate caregivers' depressive symptoms. Furthermore, this information is useful to social workers, health practitioners, and others who interact with and support family caregivers. In particular, it encourages these stakeholders to consider not only how objective stressors (i.e. hours of care) affect caregiver well-being, but also how subjective stressors such as perceived care-related criticism and secondary stressors such as sibling conflict contribute to caregiver burden and psychological distress. By understanding conditions within a family that place caregivers at greater risk of perceiving these family-related stressors, these stakeholders will be better able to identify and address the needs of these caregivers.

APPENDIX

Table A.1 Coding Scheme for the Qualitative Analysis in Chapter 2

Code	Code Description
Criticized Siblings' Care Performance	Caregivers described that they were critical of the care their siblings provided their mother (often the amount of care a sibling provided or the manner in which a sibling provided care).
Identified Positive Feedback	<p>Caregivers described an instance in which someone indicated that they had, in some way or at some time, been a "good caregiver."</p> <p>In some instances, this was another person (e.g. a mother, another sibling, a spouse). In other instances, this support came from the critical sibling themselves, but was regarding a different aspect of care or care event.</p>
Disparaged Critical Siblings' Perspectives	Caregivers provided some rationale for why the sibling was not competent to evaluate his or her care performance, discounting their perspective because it was not valid or trustworthy.
Emphasize that the siblings' criticisms are not severe	Caregivers emphasized that the criticisms were minor, not memorable, just a difference in opinion, or laughable.
Care Performance was Reasonable Given Extenuating Circumstances	Caregivers referred to an extenuating circumstance (often geographical distance or a competing obligation), suggesting that their siblings were holding them to too high a standard and that their care performance was good in light of the circumstances.
Withdrew from Interactions with Siblings	Caregivers indicated that they avoided speaking to or interacting with their critical siblings.

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