Title

A Mixed-Methods Investigation of Family History and Communal Coping with Siblings: The Role of Favoritism, Family Functioning, and Unresolved Hurt Feelings Amid Caregiving

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Publication Date

2024

Peer reviewed|Thesis/dissertation

University of California, Santa Barbara

A Mixed-Methods Investigation of Family History and Communal Coping with Siblings: The Role of Favoritism, Family Functioning, and Unresolved Hurt Feelings Amid Caregiving

A dissertation submitted in partial satisfaction
of the requirements for the degree
Doctor of Philosophy in Communication
by
Abdullah Sayem Salehuddin

Committee in charge:
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September 2024

The dissertation of Abdullah Sayem Salehuddin is approved.

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Acknowledgements

First and foremost, I would love to thank my PhD advisors and dissertation co-chairs from the bottom of my heart: Dr. Tamara Afifi and Dr. Andy Merolla. I will forever feel indebted to both for their immense patience, strategic guidance, and sincere understanding throughout this entire dissertation process. I would have never been able to complete such an immense scholarly undertaking without their consistent support in the form of intellectual conversations to prepare me for theoretical arguments and statistical analyses, empathic listening during times of personal struggle, and gently resetting expectations when academic production may have been mediocre on my end. I genuinely appreciate both for always finding a fine balance between being understanding and challenging me to push beyond my limits for optimal growth as a scholar and person. I hope to someday replicate the prolific scholarship and mentorship both of you have demonstrated with me over the last four years. I love y'all! Thanks also to my other dissertation committee members, Dr. Karen Myers and Dr. Jennifer Kam, for their support and guidance throughout this journey as well.

I would love to thank my immediate family members, specifically my deceased father and widowed mother, for their patience and support while I have pursued higher education at four different institutions for over 11 years now, chasing a more stable future for our family. Coming from poverty and being undocumented have been central themes defining our familial identity and history. For years, I promised you all a better future via higher education and have taken active steps to make that a reality for over a decade now. Throughout this lengthy process, you all have shown extreme patience and support without concretely seeing evidence of that stability I promised more than a decade ago and, for that, I thank you so much. I am extremely excited to deliver on my promise soon and imminently provide a stable and better future!

I would love to thank my fiancée, Seol, and my two cats, Blissy and Mellow. Writing a dissertation is an excruciatingly stressful process, but you three have provided me with the love, support, and affection needed to make this difficult process a bit more bearable. Thank you for lifting me up in moments where life challenges held me down.

Thanks to all my research assistants for their hard work in creating study flyers, recruiting participants for the study, transcribing interviews, and coding qualitative data. This dissertation would not be possible without your contributions. A special thanks to Emily and Jolie for their consistently thorough work and for always exceeding my expectations.

This dissertation is dedicated specifically to my father, who passed away in 2021 after battling cancer for a few years: A.K.M. (James) Salehuddin. Thank you for always working so hard to provide a roof over our heads and food on the table despite never having any real opportunities in life due to our undocumented immigration status. Thank you for teaching me the importance of *always* providing for family, regardless of the severity of dire circumstances. I love you and I hope you are proud from wherever you are now!

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Salehuddin, A. S., Afifi, T. D., & Salmon, J. (2024). Conscious uncoupling: Divorce in the 21st Century. In M. Hojjat, & A. Moyer (Eds.) *Modern relationships: The evolution of romance, friendship, and family*. Oxford University Press.

Mazur, A. P., **Salehuddin, A. S.**, & Afifi, T. D. (2024). Engaging in coping during the transition to college. In K. R. Rossetto, & E. M. Martin (Eds.) *Journey into college and career: Cultivating resilience among challenges*. Kendal Hunt Publishing Company.

Salehuddin, A. S., King, J., Afifi, T. D, & Afifi, W. (2023). Resilience as a predictor for why some marital relationships flourished and others struggled during the initial months of COVID-19. *Journal of Communication*, jqad011.

Merolla, A., Otmar, C., & **Salehuddin, A. S.** (2023). Past relational experiences and daily social interaction: Direct, moderated, and mediated associations between relational difficulty, communication, and perception in two samples. *Communication Research*, 00936502231162232.

Afifi, T. D, Denes, A., & **Salehuddin, A. S**. (2022). Contemporary approaches to studying biological and physiological markers in a changing instructional context. In M. Houser, & A. M. Hosek (Eds.) *Handbook of instructional communication: Principles and practices of teaching rhetorical and relational perspectives* (pp. 385–406). Routledge.

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University of California, Santa Barbara

Commencement Speaker	June 2024
Grad-Slam Preliminary (Social Sciences) Round Winner ($1,000)	Mar. 2024
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Commencement Speaker	May 2018

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President's Honors List	Feb. 2015-June 2016
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Phi Rho Pi National Forensics Association

National Gold Medalist—Informative Speaking	Apr. 2016
National Silver Medalist—Rhetorical Criticism	Apr. 2016
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National Bronze Medalist—Persuasive Speaking	Apr. 2015

California Community College Forensics Association

State Gold Medalist—Persuasive Speaking	Mar. 2016
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Pacific Southwest Collegiate Forensics Association

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**Awarded to the top speaker in Southern California with the most impressive combination of academic success, competitive success, and community outreach, as voted by all regional forensics' coaches*

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Afifi, T. D. (PI), Rand, K. (Co-PI), Collins, N. (Co-PI). (2021-2023) ($216,884). R42 Supplemental grant for National Institute on Aging STTR Phases II Clinical Trial: Using Rendever to improve the quality of life of older adults with cognitive impairments in senior living communities and their family members who live at a distance. Grant #: 2R42AG063640-02.
Responsibilities: (a) setting up VR technology, (b) administering surveys, (c) conducting interviews, (d) digitally organizing video and audio files, (e) training undergraduate research assistants

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Emotional Stroop Lab

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Health Communication Research Lab
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Graduate Teaching Assistant UC Santa Barbara

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Teaching evaluation rating: TBD

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Fall Semester 2019
Comm 236 – Forensics Activity

Spring Semester 2019
Comm 236 – Forensics Activity

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Fall Quarter 2023
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Inviter: Dr. Baron Haber, Assistant Director of Professional Development at UCSB Grad-Div

Summer Session 2023
Event: *Thriving, Not Surviving: Navigating Higher Ed as a First-Gen College Student*
Inviter: Dr. Malaphone Phommasa, Assistant Dean of Academic Success Initiative

Spring Quarter 2023
Event: *Wine and Wisdom*
Inviter: John Lofthus, Assistant Dean of Graduate Development at UCSB

Summer Session 2022
Event: *Thriving, Not Surviving: Navigating Higher Ed as a First-Gen College Student*
Inviter: Dr. Malaphone Phommasa, Assistant Dean of Academic Success Initiative

Guest Panelist CSU Long Beach

Fall 2020
Event: *Graduate School Readiness*
Inviter: Dr. Amy Heyes, Professor of Communication Studies

Fall 2019
Event: *Graduate School Readiness*
Inviter: Dr. Amy Heyes, Professor of Communication Studies

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- Competency in Statistical Package for Social Sciences
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Abstract

A Mixed-Methods Investigation of Family History and Communal Coping with Siblings: The Role of Favoritism, Family Functioning, and Unresolved Hurt Feelings Amid Caregiving

by

Abdullah Sayem Salehuddin

The demands for informal caregiving have risen significantly (Reinhard et al., 2023), leading many adult caregivers and their siblings to cope together while providing care for their parents with medical conditions (Kullgren et al., 2022). Communal coping (CC) occurs when family caregivers jointly identify the stressor of caregiving as shared and work with each other to manage caregiving responsibilities as a team (Afifi et al., 2020). Although enacting CC among family members should help to manage parental care needs more effectively, a history of maltreatment among family members can complicate this coping process. Yet, little research to date has explored how adult caregivers' *family history* impacts CC amid caregiving to shape well-being outcomes.

The present mixed-methods study examined the role of family history when adult caregivers engage in CC with their siblings to support their ill parent. Testing a hypothesized model using a survey (N = 776), study one examined how adult caregivers' perceptions of childhood parental favoritism toward siblings, unresolved childhood hurt toward their siblings, and family functioning in childhood (i.e., indicators of family history) predict CC engagement with siblings, which, in turn, associates with caregiver burden, resentment toward siblings, and flourishing (i.e., well-being outcomes), while taking into account the moderating effects of felt obligation and family resources. The results revealed that adult caregivers' CC engagement with siblings mediated the associations between their family history and caregiver burden, sibling resentment, and flourishing, with high family resources making the indirect associations with flourishing stronger. Some results were in the opposite direction of the hypothesized model, such as the positive associations between both childhood favoritism toward siblings and unresolved childhood hurt toward siblings and CC engagement with siblings, casting potential light on the situational pressure to cope with hurt-inflicting siblings or those who were more favored by their parent during childhood.

In interviewing those who deal with financial hardship (*N* = 30), study two investigated why adult caregivers enact CC with siblings (despite complications from family history), and how childhood favoritism, unresolved childhood hurt, and family resources shape CC engagement with siblings amid caregiving. The findings highlight that, despite a family history of favoritism and unresolved hurt, both favored and disfavored adult caregivers' engaged in CC with siblings out of a felt obligation to their ill parent. In addition, the findings suggest that unresolved childhood hurt between adult caregivers and their siblings impeded CC through heightened conflict and arguments, which, at times, made CC ineffective or dysfunctional. Family resources (i.e., financial, social, emotional, and instrumental support), when shared between caregivers in the family network, allowed for greater CC to lessen caregiver burden. The withholding of resources by siblings, however, made adult caregivers feel more resentment toward siblings and caregiver burden.

Ultimately, this dissertation sheds light on the salient role family history plays during caregiving and end-of-life processes, underscoring that childhood experiences may have an enduring effect on how adult caregivers enact CC with siblings decades later, especially if family issues are left unaddressed and buried in the past. This study highlights the need for practitioners (i.e., social workers, medical professionals) to emphasize adult caregivers' agency when deciding to provide care with family caregivers, considering a history of familial maltreatment. Moreover, the study underscores that future caregiver interventions must be developed using a trauma-informed approach at the family level in which practitioners attempt to carefully detect behavioral cues among family members that signal a history of familial maltreatment. While the phrase "family is forever" is contestable, this study highlights how unaddressed issues buried in family history can resurface on the grounds of caregiving to impede CC engagement among family caregivers.

Table of Contents

Chapter 1. Introduction and Rationale

As technological and medical advancements have significantly raised global life expectancy relative to past decades (World Health Organization, 2020), informal caregiving in the United States (U.S.) has become highly pervasive. *Informal caregiving* refers to “the act of providing unpaid…support to family members…that have physical, psychological, or developmental needs” (Drentea, 2017, para. 1). In fact, a recent report from the American Association of Retired Persons (AARP) indicates that approximately 38 million people in the U.S. (or roughly 12% of the population) provided informal caregiving to a loved one with a chronic health condition last year (Reinhard et al., 2023). In a study of over 2,000 informal caregivers, Kullgren et al. (2022) found that 54% of them provided care to an aging individual, 65 years or older; of those older adults who received care, 45% of them were the adult caregivers’ parents or parents-by-law. In sum, research clearly shows that adult children are increasingly assuming informal caregiving responsibilities for their ill parents (or parental figures).

In addition to being pervasive, informal caregiving has become a public health crisis due to the strenuous familial expenses associated with care coordination. According to a recent AARP (Reinhard et al., 2023) report, the annual value of informal caregiving provided by family caregivers is estimated at $600 billion, a $130 billion increase from the last report in 2019. The estimates from the report highlight that informal family caregivers provided 18 hours of weekly care, totaling 36 billion hours of annual informal caregiving, at $16.59 per hour on average (Reinhard et al., 2023). When considering the estimated increase in informal caregiving demands in the 21st century (Lutz et al., 2008), coupled with U.S. governmental cuts on healthcare expenditures (American Medical Association, 2023), the financial strain of informal caregiving duties will continue to fall on family members (Luichies et al., 2021). Many adult children, moreover, are likely collaborating with their siblings to coordinate care for their older parents with medical conditions. Therefore, more research is needed to theoretically and practically understand the extent to which siblings cope communally throughout caregiving.

Communal coping (CC) refers to a process whereby a dyad, or group, collectively views a stressor as shared between all members and actively manages the stressor through joint action (Afifi et al., 2020; Lyons et al., 1998). In the caregiving context addressed here, the shared stressor is caregiving for an older parent with a medical ailment, which is associated with managing a plethora of caregiving demands and responsibilities. For adult caregivers supporting their ill parents, communally coping with their siblings should generally be favorable when considering the benefits of CC enactment identified in the extant literature. In most situations, research has found that enacting CC enhances efficacy (e.g., Kam et al., 2018), mental health (e.g., Koehly et al., 2008), and relational quality (e.g., Lin et al., 2016). In the caregiving context, then, sibling engagement in CC should allow adult caregivers to feel more capable and supported when coordinating caregiving responsibilities (e.g., medicine administration, hospital transportation, domestic upkeeping) for their older parents with medical issues.

Yet, there are numerous factors that may complicate adult caregivers' ability to enact CC. Families often have long-term patterns of functioning that shape how they understand and collaborate in the caregiving process. Past experiences, such as unresolved hurt from childhood disputes and long-standing sibling rivalries, can create significant challenges in the caregiving experience for ill parents decades later if they are not adequately addressed

(Matejevic et al., 2014; Mills & Piotrowski, 2009). Unaddressed family issues from the past can resurface and impede caregiving and familial coping. Ongoing hurt from the past can, for instance, reduce the likelihood of CC due to low relational trust, commitment, and openness between family members. Little research to date, however, has investigated how adult caregivers' family history, specifically experiences from childhood and adolescence, shapes the caregiving process, the likelihood of CC engagement, and coping outcomes like mental and relational well-being.

Relational history has been defined broadly as past elements encompassing relationships, including (but not limited to) relational length, type, and experiences (e.g., Humphreys, 2007). Such a broad definition could refer to all experiences from any life stage from the past (Balasundaram & Avulakunta, 2021), including infancy/toddler (newborn to three years), childhood and adolescence (three to 18 years), emerging adulthood (18-29 years), and adulthood (30-64 years). For the purposes of the present study, *family history* is defined as experiences with parents and siblings during childhood and adolescence relevant to the caregiving context.

Known as a transitional period from childhood to adulthood, adolescence comprises significant biological and cognitive changes that shape teenagers' understanding of themselves and their roles within familial relationships (Lerner, 2021). Adolescence marks a time where individuals typically become more independent and separate themselves from the protective influence of the family (Casey et al., 2008; Spear 2000). This separation during adolescence can be a tumultuous time composed of familial challenges and uneven parental treatment. Research indicates, for instance, that parents typically favor one (or more) of their children in one- to two-thirds of families (Suitor et al., 2008). Unaddressed differential treatment by parents during childhood and adolescence may be a source of rumination for young adults later in life. In adulthood, individuals generally become more self-aware of their position within the family and gain clarity on their own identities (Arnett, 2014), which have been partially shaped by familial experiences from adolescence. These types of experiences from adult caregivers' family history may potentially shape their ability to communally provide care for ill parents with their siblings.

Although there may be numerous factors from the past that shape CC engagement with siblings, the current study focuses on three relevant experiences from adult caregivers' family history: *parental favoritism* (i.e., perception of parental differential treatment that is consistently one-sided; Finzi-Dottan & Cohen, 2010); *unresolved hurt feelings* (i.e., perceived tendency to take conflict personally and ruminate about past hurtful events; Miller & Roloff, 2014); and *family functioning* (i.e., perceived familial cohesiveness, fulfillment of roles, adaptability to changes, and effective communication; Zhang, 2018). These factors are relevant because they likely (1) directly involve all family members in the caregiving context, (2) shape how adult caregivers perceive the stressor of caregiving in response to managing parental care needs, and (3) influence if and how siblings enact CC to coordinate caregiving for their ill parent.

Parental favoritism, unresolved hurt feelings, and family functioning from childhood likely affect the relational quality informal adult caregivers *bring to* the caregiving context, which should associate with CC enactment and shape coping outcomes *during* the caregiving process. Indeed, parental favoritism toward siblings (disfavoritism, in particular) has been associated with less sibling warmth and greater sibling conflict (Finzi-Dottan & Cohen, 2010). The perceived negative effects of favoritism of one's siblings by the parent during childhood could hinder CC between adult caregivers and their siblings. Yet, better family functioning has been positively linked to maturity and intellect (Nakao et al., 2001), and negatively linked to frequent problems in adult children. Familial dysfunction corresponds with more difficulties connecting with parents and friends, as well as withdrawing from adverse situations that require coping (Segrin et al., 2015). Adult caregivers' perceptions of greater family functioning in childhood, which indicates more cohesion within familial relationships, should promote more CC with siblings amid caregiving. However, people are often hurt by individuals who are familiar and close (Leary et al., 1998), and this very much includes siblings. Research shows hurtful relational events may be difficult to recover from (Johnson & Wu, 2002), and lingering hurt feelings detrimentally affect people's cognition and behavior (Vangelisti, 2009). Unresolved hurt feelings stemming from childhood between adult caregivers and their siblings will likely pose barriers to constructive and equitably shared actions necessary to coordinate care for their ill parents. The extent to which ongoing hurt from childhood shapes adult siblings' ability to provide care for their parents, however, remains largely unexplored.

The Present Study

The purpose of this dissertation is to examine how adult caregivers' family history—captured by *parental favoritism*, *unresolved hurt feelings toward siblings*, and *family functioning* during early childhood and adolescence—shapes CC enactment with siblings and coping outcomes when providing care to their older parent with a medical ailment. Using the theoretical model of communal coping (TMCC; Afifi et al., 2020) to outline the associations between family history, CC engagement with siblings, and coping outcomes, this dissertation proposes two studies utilizing a mixed-methods approach (Creswell & Clark, 2017).

Specifically, a sequential-explanatory mixed-methods design is used, which includes the collection and analysis of quantitative data before qualitative data to comprehensively explain the relationship between past family experiences and current coping processes amid caregiving.

In study one, a large sample of adult caregivers are surveyed to test a hypothesized model linking family history, CC engagement with siblings, and coping outcomes. Broadly, the model hypothesizes that the associations between family history (i.e., favoritism, unresolved hurt, family functioning) and coping outcomes (i.e., caregiver burden, sibling resentment, flourishing) are mediated by CC engagement with siblings. By extension, the model also predicts that these indirect associations between family history and coping outcomes are dependent upon the degree of felt obligation toward the ill parent and family resources at the onset of caregiving. In study two, with a second sample of adult caregivers dealing with financial hardship, interviews are conducted to explore why adult caregivers engage in CC with siblings despite complicated family histories brought to the caregiving context. Specifically, these interviews will provide rich insights into how childhood favoritism, unresolved hurt, and family functioning shape adult caregivers' ability and willingness to engage in CC with siblings amid caregiving.

The purpose of using a sequential-explanatory, mixed-methods design (Creswell & Clark, 2017) is twofold. First, survey results from study one will provide an initial understanding of which experiences from adult caregivers' family history (i.e., favoritism, unresolved hurt, family functioning) are directly associated with CC enactment with their siblings, and indirectly associated with coping outcomes (i.e., burden, resentment, flourishing). Although insightful on the general process of CC, including the probability of

CC occurring and the outcomes associated with CC engagement, the quantitative analyses from study one might not capture enough of the complex and dynamic conditions under which CC is able to be enacted or not across different families. Thus, the second study reported in this dissertation is based on semi-structured interviews with individuals currently or recently engaged in caregiving for a parent with a medical issue. The qualitative findings from study two will provide a more detailed, rich understanding of how and why adult caregivers' family history shapes CC (dis)engagement with siblings, as well as unpack how and when CC enactment becomes (dys)functional. Taken together, the mixed-methods approach adopted in this dissertation will provide a comprehensive understanding of how adult caregivers' childhood experiences with their ill parent and siblings brought to the caregiving experience shape CC engagement with siblings and coping outcomes.

The dissertation will proceed in five chapters. In chapter two, using the TMCC (Afifi et al., 2020) as a guide, study one unpacks the association between childhood experiences and the likelihood of CC engagement amid caregiving, leading to hypotheses, methods, and data analytic techniques for the quantitative portion of this dissertation. In chapter three, the results and discussion of the first study are provided. Chapter four then builds upon these quantitative results to offer a rationale for study two, which focuses on why and how adult caregivers' family history shapes CC engagement with siblings, followed by research questions, methods, and data analytic strategies for the qualitative portion of this dissertation. In chapter five, the findings and discussion of the second study are reported. Finally, in chapter six, the overall conclusions from the mixed-methods findings are detailed, ending with a discussion of future directions.

Chapter 2. Study One Rationale, Hypotheses, and Methods

This chapter proposes a rationale for study one, which investigates the associations between adult caregivers’ family history, CC engagement with siblings, and coping outcomes in response to providing care to their older parent with a medical ailment. In particular, this chapter examines how childhood parental favoritism toward siblings, unresolved childhood hurt toward siblings, and family functioning from childhood are associated with CC, as well as how CC is linked to caregiver burden, flourishing, and resentment (i.e., coping outcomes). Using the TMCC (Afifi et al., 2020) as a theoretical foundation, this chapter begins by explaining associations between family history and CC engagement with siblings. Then, the chapter discusses the caregiving context, including the multifaceted effects of caregiving on adult caregivers and the significance of family history in shaping CC engagement, most notably in response to coordinating care for their ill parent. Next, this chapter proposes a hypothesized model, predicting that adult caregivers’ family history (i.e., childhood parental favoritism, unresolved hurt feelings, family functioning) predicts CC engagement with siblings, which, in turn, is associated with coping outcomes (i.e., burden, resentment, flourishing). Importantly, the model’s proposed indirect effects of family history on coping outcomes through CC are hypothesized to be moderated by two key variables, including felt obligation and family resources, each of which will be defined and discussed. Lastly, the chapter concludes by describing the methods and data analytic techniques employed in study one.

Communal Coping and Relational Quality

According to the TMCC (Afifi et al., 2020), families engage in CC when confronted with emergent life stressors. CC is conceptualized as a process whereby people appraise a stressor as shared and proactively act upon the stressor together (Afifi et al., 2020; Lyons et al., 1998). Two dimensions constitute CC: (1) shared appraisal and (2) joint action. First, shared appraisal—the cognitive dimension of CC—refers to the extent to which family members (or other group members) perceive stressors as collectively owned (Afifi et al., 2006). High shared appraisals exist, for instance, when adult caregivers and their siblings view the challenges associated with coordinating parental care needs as “our” problem, as opposed to “my” or “your” problem. Second, joint action—the behavioral dimension of CC—refers to the degree to which family members respond to stressors through collaborative efforts to ameliorate its detrimental effects. Joint action is apparent, for example, when adult caregivers and their siblings take collective responsibility for the difficulties linked with coordinating care for their ill parent (e.g., providing transportation to and from medical facilities, cleaning the house, and offering social and emotional support). According to the TMCC, the degree of CC engagement in response to life stressors can depend on many factors, including the nature of the stressor, culture, environment and social structures, and relational and communication quality (see Afifi et al., 2020).

Of these factors that predict CC engagement, relational quality is especially important in the caregiving context because the quality of relationships is highly salient to communicative processes associated with care coordination among adult caregivers and their siblings involved (Kong et al., 2021; Luichies et al., 2021). Afifi et al. (2020) argue that various relational quality indicators (e.g., affection, closeness, commitment, satisfaction, power discrepancies) at the onset and during stressor management predict the extent to which family members engage in CC. Relational quality is indicative of how people maintain their relationships using verbal and nonverbal communication (Afifi et al., 2016). More pro-social relationship maintenance (i.e., communication that is more unified, supportive, empathic) positively associates with relational quality and well-being, whereas anti-social maintenance reduces quality of relationships (Afifi et al., 2018a). Better relationship maintenance can help people feel more openness, trust, and unity in their relationships, shaping the relational quality people bring to life stressors that can play a role in navigating such challenges.

Relational quality is essential to enacting CC. On one hand, better relational quality has been predictive of more CC engagement, enhancing well-being for those who are coping together. For example, better relational quality between married individuals (i.e., more satisfaction, less marital conflict) predicts higher levels of CC when managing various medical stressors (Robles & Kiecolt-Glaser, 2003). Research also shows greater relational functioning predicts more CC, as indicated by more affection, commitment, and equality (Lewis et al., 2006). Better relational quality and functioning predict more CC, which, in turn, has been linked to well-being and better relational health. In fact, research shows CC predicts better self-care behaviors for diabetic patients, such as exercise, diet, and medication adherence (Helgeson et al., 2017). CC also predicts greater relational well-being and positive partner perceptions (Van Vleet et al., 2019). Better relational quality likely predicts CC because coping members not only share genuine compassion and concern for one another (Helgeson et al., 2017), but are also willing to sacrifice for other people’s needs (Lewis et al., 2006).

On the other hand, poorer relational quality appears to be associated with less CC due to higher levels of mistrust and conflict. Afifi et al. (2020) argue that sometimes people experience a shared stressor, but are unable to cope effectively together because of reasons like a lack of trust or too much avoidance or verbal rumination of the shared stress. For instance, Afifi et al. (2016) found that despite being immersed in the same refugee camps in Lebanon, Palestinian adolescents avoided CC with other refugees out of fear of safety and inability to trust others within the camps. Moreover, higher levels of CC may not be beneficial in the presence of high conflict. For instance, Afifi and colleagues (2018) found that high CC engagement between children and families exacerbated the detrimental effects of uncertainty on mental health when adolescents experienced trauma. Notably, this study also found CC may only be effective for adolescents' well-being when low to moderate levels of interparental conflict existed, suggesting high levels of conflict may impede CC. This is likely because conflict can create more arguments between coping members, disrupting CC. When managing emergent life stressors, relational quality not only impacts how people cope with each other, but also affects their well-being as a result of enacting CC. The relational quality brought from adult caregivers' family history is imperative to consider in the caregiving context because it likely shapes CC engagement with siblings.

Parental Aging and the Caregiving Process

Aging is defined as "the natural process of decline . . . during the later stages of an individual's lifespan" (Luichies et al., 2021, p. 845). Aging adults often experience declines in physiological, physical, and psychological functioning, which ranges from mild to severe. Physiologically, the wear and tear on internal organs across one's life cycle negatively affects well-being in later life stages (Watson, 2008). For example, aging can deteriorate the nervous system by reducing nerve conduction capacities and reaction times, as well as weaken sensory abilities, such as seeing, hearing, smelling, and tasting (Watson, 2008). Physically, aging individuals can become subject to various types of atrophy—the complete or partial collapsing of organs or abilities caused by cell degeneration, underusage, or negligence

(Herzog et al., 1987), including skeletal, cardiac, or muscular, leading to health complications (Watson, 2008). Implications of muscular atrophy, for instance, include reduced strength in limbs and mobility, increasing the tendency to fall abruptly (Watson, 2008). Psychologically, older people may experience challenges with information retention (Watson, 2008). For example, aging can lead to declines in short-term memory in which older adults experience issues with recalling recent events (Maylor, 2005), although long-term memory is generally intact.

Beyond the natural consequences of aging, older adults are at a higher risk of developing other physical illnesses and mental disorders. For instance, physical illnesses are often correlated with aging, including cardiovascular disease, diabetes, arthritis, and cancer (Watson, 2008). Research shows physical illnesses, such as cancer, not only increase pain, but also harm quality of life for patients and their family caregivers (Adams, 1991; Woźniak & Iżycki, 2014). Moreover, aging is related to increased mental and neurological disorders, such as dementia (Watson, 2008). In fact, the World Health Organization (2017) estimated that 15% of older adults—60 years and over—endure some type of mental disorder. Taken together, natural declines in physiological, physical, and psychological functioning coupled with increases in the likelihood of illness acquisition threaten older adults' life quality and independence (Watson, 2006), increasing the need for receiving care from family, where CC may transpire.

As older adults cope with the physical and mental consequences of aging, many adult children and their siblings assume informal caregiving responsibilities for their aging parents. As opposed to "formal" caregiving provided by paid workers (i.e., nurses, social workers, counselors, etc.), *informal* caregiving is conceptualized as "the act of providing unpaid assistance and support to family members, friends, or acquaintances that have physical, psychological, or developmental needs" (Drentea, 2017, para. 1). Informal caregiving (referred to as "caregiving" from here onward) is typically provided by the family members or close individuals to care-recipients (Drentea, 2017). Caregiving can take the form of instrumental and social/emotional tasks. Instrumental tasks include providing transportation, getting groceries, and cleaning the house for older parents, whereas listening, counseling, and providing companionship comprise social/emotional tasks (Drentea, 2017). Caregiving also encompasses informational tasks, such as adult caregivers learning to adapt to care-recipients' living and medical conditions or teaching care-recipients how to access healthcare benefits.

Effects of Caregiving on Relationships

A robust body of literature has labeled caregiving for aging parents as an "emotional rollercoaster" (Luichies et al., 2021, p. 854) because adult caregivers experience both positive and negative effects ranging in severity. Regarding the positive effects, adult caregivers of aging parents often describe their experiences as joyful, happy, and pleasant (Donorfio & Kellett, 2006; Funk, 2015; Jones et al., 2003). Other adult caregivers describe their caregiving experiences as prideful and emotionally fulfilling (Jones et al., 2003; Lopez Hartmann et al., 2016), as well as meaningful (Campbell, 2010). Adult caregivers likely feel such positive emotions because providing care to aging parents presents opportunities to promote restoration and closeness in relationships (Luichies et al., 2021). Likewise, expressions of parental gratitude have been a source of satisfaction for many adult caregivers (Dhar, 2012; Funk, 2015).

Yet, the challenges associated with providing care to older parents with medical ailments can negatively affect adult caregivers. Research shows that adult caregivers report experiencing anxiety (Perry, 2004), frustration and anger (Donorfio & Kellett, 2006), reluctance (Lopez Hartmann et al., 2016), and grief and sadness (Ar & Karanci, 2019). These negative emotions are likely felt due to changes in the parent-child relationship during the process of caregiving. For instance, adult children report a range of caregiving issues while providing care for older parents, such as irritation, tension, and conflict with parents (Luichies et al., 2021). These general caregiving challenges are not exclusive to parent-child relationships, but may likewise apply to relationships held between adult caregivers and their siblings.

When adult caregivers provide care to aging parents in conjunction with their siblings, tensions and problems may arise. Research shows adult caregivers experience frustration and annoyance toward siblings while caring for aging parents with medical conditions, often due to issues with inequitable roles and neglect of responsibilities (Luichies et al., 2021), which can lead to resentment. Gutierrez-Herrera et al. (2021) define resentment as a "persistent feeling of disgust or anger toward someone," typically due to relational offense or suffered damage (p. 1). Kanti and Falconier (2017) found, for example, that sibling caregivers' tensions and conflicts arose when siblings attempted to coordinate care for aging parents, prompting feelings of frustration, disappointment, and resentment for primary adult caregivers. Adult caregivers become frustrated and annoyed at sibling caregivers due to a lack of initiative in fulfilling shared commitments made to support ill parents (McDonnell & Ryan, 2014). Even though research highlights several caregiving challenges and effects for adult caregivers and their siblings providing care for parents, little attention has been given to the significance of family history in shaping CC engagement with siblings amid caregiving.

Significance of Family History

Research rooted in life-course developmental perspectives has well-documented the importance of family history (Caspi et al., 1989), as early interaction patterns within families generate mutual familial supportiveness when confronted with adversity. Negative interaction patterns produced in family history can disrupt the degree of CC engagement among siblings in the caregiving context. In support, Whitbeck et al. (2001) found that "negative interaction patterns…across time may affect the ability of the family system to recognize the need for and effectively provide emotional support to older parents" (p. 226). Familial communication patterns are developed by the interactional experiences from family history that shape and affect family members involved over their life course. By extension, certain experiences from adult caregivers' family history, implicating all individuals involved in the caregiving context (i.e., sibling caregivers, ill parent), will likely influence the degree of CC and its impact on coping outcomes. Although there could be endless experiences from one's family history that shape CC enactment with siblings amid caregiving, the present study will focus on three that directly apply to adult caregivers, ill parents, and sibling caregivers: (1) parental favoritism, (2) unresolved hurt feelings, and (3) family functioning. But why these three factors?

The practice of favoritism involves parents consistently treating their children differently in a favorable manner, which often leads to negative individual consequences for children who perceive themselves as disfavored (e.g., depression and aggression; Moharib, 2013) and unfavorable relational effects for siblings involved (e.g., sibling hostility; Meunier et al., 2012). Research shows parental favoritism has negative effects across one's lifespan—current perceptions of maternal and paternal favoritism predict negative attitudes toward sibling relationships (Sommantico et al., 2019). Beyond parental favoritism, hurt feelings are known to be ubiquitous within family relationships (Mills & Piotrowski, 2009), and the degree to which such negative emotions remain unresolved will likely impact caregiving and CC engagement with siblings. Aversive sibling experiences are frequent (Martin & Ross, 2005), and unresolved hurt feelings from such relational events are risk factors for development in social relationships (Mills & Piotrowski, 2009). Considering that these hurtful events can weaken trust and hinder closeness, these negative experiences from family history will likely affect the degree to which adult caregivers engage in constructive management of parental care needs with their siblings. In contrast, certain positive experiences from family history will shape family functioning, which should promote CC with siblings while caregiving. Research shows greater family functioning predicts higher quality end-of-life care (Lee & Yun, 2018). Ultimately, these experiences and factors from family history will likely shape how adult caregivers engage in CC with their siblings while caregiving for their older parent with a medical illness.

The Impact of Family History on Caregiving, CC, and Coping Outcomes

When adult children cope communally with their siblings to provide care for their ill parent, the degree of CC will potentially be contingent on pre-existing relational qualities influenced by experiences from their family history—during early childhood and adolescence (three to18 years; Balasundaram & Avulakunta, 2021). This section reviews why early childhood and adolescence are especially important and influential periods in adult caregivers' family history, which may shape CC in the caregiving context. Then, this section details why parental favoritism, unresolved hurt feelings, and family functioning from childhood will shape adult caregivers' experience with CC engagement with siblings and coping outcomes. Lastly, the section concludes by proposing a hypothesized model with directional predictions.

Importance of Family Experiences in Early Childhood and Adolescence

Family experiences during early childhood and adolescence can have enduring effects on individual identity, communicative patterns, and family relationships. Some theoretical perspectives, such as social learning (e.g., Bandura, 1977) and attachment (e.g., Ainsworth, 1982), suggest the learning of family functioning patterns (i.e., relationship maintenance) during early childhood and adolescence not only shapes self-concept, perceptions of relationships, and communication patterns in such periods, but also manifests in how people maintain relationships in adulthood. A longitudinal study spanning over three decades reveals that perceptions of familial cohesion and support during early childhood and adolescence predicted greater positive family relationships in adulthood, which were linked to better health and greater happiness (Ramos et al., 2022). Young adults likely feel more closeness with, and trust toward, family members in adulthood because their relationships with one another during early childhood and adolescence had supportive foundations (i.e., sharing of empathy, open communication). As such, adult caregivers' family experiences in early childhood and adolescence should play important roles in how they coordinate care for their ill parent with their siblings.

During early childhood, family experiences play critical developmental roles in shaping individuals' self-concept, communication, and relational perceptions. The nature and quality of such family experiences will likely dictate the effects they have on individuals' development and relationships over time. An early childhood consisting of unhealthy family relationships, destructive forms of communication (i.e., blaming, contemplating, neglecting), and unfair parenting practices should be linked to more stress and traumatic consequences. For example, research reveals that prolonged exposure to stress and/or trauma in early childhood negatively affects social and emotional development (Giannopoulou, 2012). Delays, or gaps, in social and emotional development in early childhood can detrimentally affect children's ability to learn vital communication skills needed to maintain relationships in adolescence. Research shows that early childhood experiences with family members shape familial relationships, as well as mental and physical health trajectories throughout life course (Gaydosh & Harris, 2018), including health-related advantages and disadvantages (Avison, 2010). By contrast, more supportive family environments (i.e., better parenting quality) during early childhood have been predictive of greater child development (i.e., higher social/communication ability; Knauer et al., 2019). Thus, family experiences in early childhood set the stage for how children transition into teenagers, further developing perceptions of self-identity and family relationships that can shape the caregiving experience later in adulthood.

Adolescence, a period marked by rapid changes in people's understanding and performance of self- and group-identities, can shape the quality of family relationships brought into adulthood. Adolescence allows for self-discovery and social exploration, but can also be stress-evoking and anxiety-producing (Luna, 2009), especially if adolescents are developing in the presence of unsupportive family units. A 15-year longitudinal study shows that supportive family functioning during adolescence (measured when respondents were 15 years old) were predictive of better functioning during adulthood (measured when they were

30 years old) in various domains of life, including mental well-being and social/interpersonal functioning (Paradis et al., 2012). Another 10-year longitudinal study (Parra et al., 2015) found that reported family conflict peaked during early and middle adolescence (12-15 years), but gradually declined during late adolescence and emerging adulthood (16-22 years). Less family conflict over time, however, may not always be indicative of changes that benefited the family unit. Rather, declines in family conflict over time could suggest that individuals, who were hurt by family members during adolescence, had willingly grown more estranged, closed-off, and distant (Scharp, 2019), choosing to not engage in conflict resolution likely due to unresolved hurt feelings from the past.

Family experiences during early childhood and adolescence seemingly have lasting impacts later in life, which can shape how adult caregivers approach caregiving and engage in CC with their siblings while providing care for ill parent. Scholarly evidence suggests that the quality of family experiences, whether supportive or unsupportive, can have enduring effects on individuals throughout their life course. While many past family experiences can play a role in adult caregivers' ability to enact CC with siblings amid caregiving for their ill parent, the present study will focus on two potentially unsupportive factors (i.e., favoritism, unresolved hurt) and one supportive factor (i.e., family functioning) brought from family history that can shape the CC process and caregiving experience.

Parental Favoritism as a Deterrent of CC

An experience from family history relevant to all individuals immersed in the caregiving process is parental favoritism. Finzi-Dottan and Cohen (2010) conceptualize parental favoritism as perceptions of differential parental treatment toward children, viewed as consistently unfair and one-sided. Jenkins and O'Connor (2003) explain favoritism by parents can take many forms, two of which include: (1) differential positivity (i.e., favored) and (2) differential negativity (i.e., disfavored). Within the same family, differential positivity implies one child receives higher levels of positive engagement from one or both parents relative to other children (Jenkins & O’Connor, 2003). An example of differential positivity is when parents give significantly more attention, compliments, or rewards to one child over others. By contrast, differential negativity assumes one or both parents direct more negative behaviors toward one child compared to other children within the same family (Jenkins & O’Connor, 2003). Parents significantly scolding, punishing, and/or withholding rewards unnecessarily from one child compared to the rest captures differential negativity.

The experience of favoritism from the past should affect the caregiving process in a negative manner, impeding CC enactment with siblings and harming coping outcomes. In support, parental favoritism has been linked to various negative effects on individuals and their relationships. For example, research shows there is a negative association between parental favoritism and sibling warmth, and differential negativity predicts higher sibling conflict (Finzi-Dottan & Cohen, 2010). This is likely because disfavored children may feel unworthy of parental attention and, by extension, grow colder toward their favored siblings, which can pose barriers to open and supportive communication. As such, parental favoritism could potentially explain why siblings experience difficulties when attempting to coordinate care for their ill parent.

Beyond generating sibling conflict and tension, parental favoritism also has negative psychological effects on children. For instance, Peng et al. (2018) found both past and present recollections of maternal favoritism toward one’s siblings predicted adult children’s depressive symptoms during midlife. Past research has also shown how parental disfavoritism negatively affects an individual's self-esteem (Zervas & Sherman, 1994). Amid caregiving for their ill parent, the negative effects of favoritism from family history will likely impede CC with siblings because they may experience higher levels of conflict. People tend to become distressed and defensive during conflict, detrimentally affecting their communication (Overall & McNulty, 2017). Such destructive forms of communication between siblings amid caregiving will possibly hinder CC engagement and harm coping outcomes, including overall well-being.

Perceptions of differential treatment between sibling caregivers should detrimentally shape adult caregivers' ability to flourish—a holistic measure of well-being and functioning (Feeney & Collins, 2015). *Flourishing* includes five well-being dimensions: (1) hedonic (i.e., quality of life, satisfaction/happiness), (2) eudaimonic (i.e., sense of purpose, meaning, growth, discovery), (3) psychological (i.e., resilience, positive mental health), (4) social (i.e., meaningful connections and relationships), and (5) physical (i.e., fitness, lack of illness). The TMCC explains CC allows people to positively adapt to adversity (i.e., resilience) and such positive adaptation can increase the likelihood of thriving/flourishing (Afifi et al., 2020). However, disfavored adult caregivers, who will likely bring poorer relational quality at the onset of caregiving, may feel less flourishing through CC engagement with their favored siblings.

Favoritism toward siblings by parents will likely have negative effects on coping outcomes tied specifically to the caregiving context. Differential treatment from family history should generate more sibling tension and conflict while caregiving, predicting less CC, which, in turn, will likely increase caregiver burden. Zarit et al. (1986) conceptualized caregiver burden as the extent to which caregivers view the experience of providing care as having a detrimental impact on their emotional, social, financial, physical, and spiritual functioning. Research shows caregiver burden relates to caregiving responsibilities (Reinhard & Horwitz, 1995). The TMCC elucidates lower levels of CC can increase stress when navigating challenging times (Afifi et al., 2020). Therefore, adult caregivers who have been parentally disfavored may have a tough time communicating about caregiving duties and acting upon shared responsibilities with their favored siblings, increasing the likelihood of greater caregiver burden. In addition, when perceptions of parental favoritism are present with low levels of CC, adult caregivers will likely feel resentment toward their siblings as well.

Unresolved Hurt Feelings Weaken CC

Another factor from adult caregivers' family history that may shape the degree of CC engagement with siblings is unresolved hurt feelings toward siblings from childhood. During early childhood and adolescence, harm against a sibling by their own sibling has been described to be "typical, ruthless, angry, and provoked," eliciting more remorse and regret (Recchia et al., 2013, p. 1459). Adult caregivers, who were hurt by their siblings during childhood and did not have opportunities to, or chose not to, address harm-evoking events, may develop unresolved hurt feelings that impede CC enactment with siblings amid caregiving.

In the present study, *unresolved hurt feelings* is conceptualized as having two components: (1) residual hurt and (2) taking-conflict-personally (TCP). Residual hurt refers to ongoing negative feelings sustained over time tied to a hurtful experience (Miller & Roloff, 2014). Residual hurt is similar to social pain, which refers to "a specific emotional reaction to the perception that one is being excluded from desired relationships or being devalued by desired relationship partners or groups" (MacDonald & Leary, 2005, p. 202). Research shows that the threat of relational devaluation can create an enduring feeling of hurt (Feeney, 2005), especially if siblings inflicted hurt. Hurt can have negative effects on thoughts, attitudes, and actions in relationships (Vangelisti, 2009), and people do not always recover from hurtful relational events (Johnson & Wu, 2002). Thus, residual hurt from relational history between adult caregivers and their siblings will be negatively associated with CC and coping outcomes.

Unresolved hurt feelings are likely marked by TCP, which is defined as feelings of "being personally engaged in a punishing life event while involved in a conflict" and feeling "threatened, anxious, damaged, devalued, and insulted" (Dallinger & Hample, 1995, p. 273). Miller and Roloff (2014) explain TCP includes three dimensions: direct personalization (i.e., "affect involved in TPC," p. 197); persecution feelings (i.e., "degree to which a person feels personally attacked, as opposed to being attacked on the basis of his or her position," p. 197); and stress reactions (i.e., negative psychological and physiological responses to conflict; Hample, 1999). Research reveals that people who have higher feelings of TCP generally avoid conflict, but when involved can become hostile and aggressive (Hample & Coinea, 2010). Adult caregivers' unresolved hurt feelings from family history toward siblings will likely produce less CC engagement with siblings amid coordinating care. The ongoing nature of unresolved hurt feelings is plausibly associated with rumination as well, which refers to recurrent patterns of thoughts tied to hurtful, emotional experiences (Siegle et al., 2003). Fitness and Warburton (2009) found people typically describe hurtful events as unexpected, effortful, and challenging (relative to events evoking anger or sadness). Therefore, adult caregivers are likely to ruminate about hurtful experiences from their past to make sense of why their siblings hurt them.

Unresolved hurt feelings that adult caregivers bring to the caregiving experience should predict less CC engagement with siblings and, by extension, harm coping outcomes. Because flourishing includes hedonic and psychological well-being, which are likely damaged by the hurt generated by caregiving siblings, the negative effects of unresolved hurt feelings on adult caregivers will diminish their overall ability to flourish. Moreover, adult caregivers' unresolved hurt feelings toward siblings will arguably increase caregiver burden because they will likely experience difficulties with collaboration linked to unaddressed family issues from the past. If adult caregivers feel unresolved hurt and experience inequity in sharing caregiving responsibilities with siblings, then they may feel more caregiver burden and resentment toward siblings. In other words, unresolved hurt feelings will likely spark rumination without problem-resolution, which, in turn, should make adult caregivers feel less confident in their ability to collaborate with their siblings to manage parental care needs.

Family Functioning Promotes CC

One last factor implicating all members in the caregiving context that should impact CC enactment with siblings and coping outcomes is family functioning. Zhang (2018) conceptualizes family functioning as "family members' ability to maintain cohesive relationships with one another, fulfill family roles, cope with family problems, adjust to new family routines and procedures, and effectively communicate with each other" (p. 3220). Family functioning from childhood is a multidimensional construct that captures the relational histories brought to the caregiving experience between the adult caregivers, their older parent with a medical condition, and their sibling caregivers. Because childhood family functioning likely shaped adult caregivers' relational and communication quality with family members, it should predict the degree to which they enact CC with siblings while providing care for their ill parent.

Stronger family functioning has been linked to various individual and relational benefits. For example, high family functioning during adolescence predicts greater adulthood functioning, such as better mental health and meaningful social relationships (Paradis et al., 2012). Research also shows greater levels of perceived family functioning predict lower levels of emotional reactivity and cutoffs (Chung & Gale, 2009). Put differently, when confronted with environmental stimuli (i.e., stressors), people with stronger family functioning are less likely to feel emotional flooding or hypersensitivity (i.e., emotional reactivity) and threatened by intimacy or experience excessive vulnerability in close relationships (i.e., emotional cutoffs). In the caregiving context, adult caregivers with higher family functioning during childhood should be less defensive when communicating about, and managing shared responsibilities for, their ill parent with their siblings, thus making them more receptive to the collaborative style of communication necessary for CC to occur.

Greater childhood family functioning brought to the caregiving context should predict more CC, which, in turn, should favorably shape coping outcomes. Because high family functioning assumes better relational qualities and greater familial cohesion, adult caregivers with higher perceived family functioning will potentially experience an increase in their ability to flourish. When family members function well with one another, they will likely engage in more CC, lessening adult caregivers' sense of burden when providing care. Higher family functioning brought to the caregiving process should predict more CC, which should decrease adult caregivers' feelings of resentment toward siblings because they are possibly managing shared responsibilities in more cohesive and equitable ways.

Felt Obligation and Family Resources Availability as Moderators

The indirect associations between relational qualities brought from family history and coping outcomes via CC enactment with siblings are potentially moderated by several factors. Two especially important factors to consider are felt obligation and family resource availability. Stein (1992) defines felt obligation as "expectations for appropriate behavior as perceived within the context of specific, personal relationships with kin across the lifecycle" (p. 527). Felt obligation includes particular duties and roles within family units that shape, and are shaped by, family interactions throughout the lifespan. In this study, adult caregivers' felt obligation will be directly linked to providing care for their older parent with a medical ailment. For the purposes of this study, feelings of obligation is directly tied to adult caregivers perception that they should provide care for the their ill parent. Research shows that greater felt obligation toward caregiving is associated with higher levels of help provided to older parents (Cicirelli, 1993). This is likely because people who feel a high felt obligation toward family are willing to make personal sacrifices to satisfy familial needs (Wang & Miller, 2020). Although parental disfavoritism and unresolved hurt may predict more caregiver burden and sibling resentment, and less flourishing via CC with siblings, adult caregivers' felt obligation to their ill parent should reduce the size of these indirect negative effects of favoritism and hurt feelings on coping outcomes.

The availability of family resources should also moderate the indirect associations between family history and coping outcomes through CC engagement with siblings. Family resources are defined as the "means that can be used by the family to cope with difficult situations" (Panganiban-Corales & Medina, 2011, p. 2). Family resources include many dimensions: social (e.g., support from family, friends, colleagues); cultural (e.g., cultural values like optimism, team-orientation); religious (e.g., theological beliefs, practice, support); economic (e.g., income, savings, emergency funds); educational (e.g., knowledge of aging/medical illness, understanding of care needs); and medical (e.g., access to healthcare, medical facilities; Panganiban-Corales & Medina, 2011). In a study with family caregivers of children with cancer, results indicate a strong, positive association between family resources and family functioning (Panganiban-Corales & Medina, 2011). Because effective caregiving outcomes often depend on the pooling of family contributions, adult caregivers with more family resources likely experience greater family functioning because financial and other types of support (i.e., instrumental, social, emotional) lessen the pressure of care coordination among those involved and reduce stress related to the inability to provide basic needs or cover unexpected financial costs. Although parental favoritism and unresolved hurt should predict more caregiver burden and resentment toward siblings, and less flourishing through CC engagement with siblings, the degree of family resources available to adult caregivers and their families should reduce these negative indirect effects on coping outcomes. In short, resources can blunt some of the negative indirect effects stemming from family history, such as unresolved hurt and favoritism.

Gender, Culture, and Residential Proximity as Controls

Several important covariates must also be considered when investigating how adult caregivers' family history indirectly predicts coping outcomes via CC engagement with siblings. Even though there are numerous covariates that one could consider, gender, culture, and siblings' residential proximity to their ill parent surfaced as those most important from the extant literature. Regarding gender, Gilligan et al. (2013) found favoritism by fathers predicted tension with siblings, but maternal favoritism did not. Furthermore, the study found paternal favoritism more strongly predicted daughters' perceptions of sibling tension relative to sons. Research shows men and women approach coping in different ways (Lyons et al., 1998), where men are less likely to seek support than women—suggesting gendered effects while coping with siblings may be applicable to the caregiving context.

Another important control variable is culture, which likely shapes adult caregivers and their siblings' orientation to caregiving. Culture refers to "shared meanings, understandings, or referents held by a group of people" often observed through behavioral manifestations (Schwartz et al., 2010, p. 240). Hofstede (2001) dichotomized culture into collectivism and individualism, where those from collectivistic societies prioritize group goals while individualistic groups prioritize goals tied to the self. People from collectivistic cultures are more likely to approach problem-resolution through group efforts, such as CC enactment. Indeed, research shows that family members from collectivistic groups are more likely to make sacrifices for their parents relative to those from individualistic groups (Wang & Miller, 2020). Ultimately, culture could shape how adult caregivers perceive their own caregiving responsibilities from the onset despite issues with siblings brought from family history.

Finally, residential proximity refers to the geographic distance between two points of comparison (i.e., siblings' residence/home relative to their ill parents' location). The spatial distance between sibling caregivers and their ill parent will likely impact adult caregivers' CC engagement with siblings and coping outcomes. Proximity in the caregiving experience can play a critical role because distance often shapes the quantity and quality of caregiving.

Specifically, adult caregivers and their siblings who are residentially proximal to their ill parent are likely more involved in care coordination, shaping coping outcomes in more effective ways. Research shows spatially-distant caregivers experience more depressive symptoms compared to co-residing or spatially-close caregivers (Li et al., 2019). This is likely because the residential distance compromises geographically-distant caregivers' ability to more frequently collaborate with family to provide care to their ill parent. Being spatially distant may assume individuals are not as frequently aware of the day-to-day caregiving process and processual changes, which could impede CC because they do not feel as involved. As such, there may be differences in the coping process between sibling caregivers who live geographically farther than those who are proximal to their ill parent. Taken together, the present study proposes the following hypothesized model of family history and CC.

Hypothesized Family History and CC Model

In the hypothesized moderated mediation model (see Figure 1 in Appendix E), family history indices (i.e., childhood parental favoritism toward siblings, unresolved childhood hurt feelings toward siblings, and childhood family functioning) should predict CC, which, in turn, should associate with coping outcomes (i.e., caregiver burden, sibling resentment, and flourishing). In addition, the proposed indirect associations in the model are expected to be moderated by felt obligation and family resources. Specifically, the impact of the family history factors on participants' coping outcomes through CC depends upon the level of felt obligation and family resources. The directionality of the predicted mediation paths and hypothesized moderating effects on these indirect paths in the hypothesized model are outlined below.

Parental Favoritism Hypotheses

In the parental favoritism portion of the hypothesized model (see Figure 2 in Appendix E), mediation hypotheses are initially proposed. The present study predicts that CC with siblings mediates the association between parental favoritism toward siblings in childhood and caregiver burden, resentment toward siblings, and flourishing. Specifically, perceptions of childhood parental favoritism toward siblings will be negatively associated with sibling engagement in CC, which, in turn, will be negatively associated with caregiver burden (H_{1a}) and sibling resentment (H_{2a}), and positively associated with flourishing (H_{3a}).

Next, the current study hypothesizes that the indirect effects in H_{1a}, H_{2a}, and H_{3a} are moderated by perceived felt obligation, specifically on the *a*-path or from predictor to mediator (i.e., favoritism toward siblings to CC). Particularly, high felt obligation is expected to reduce the size of the predicted positive indirect associations of childhood parental favoritism toward siblings on caregiver burden (H_{1b}) and sibling resentment (H_{2b}), and reduce the size of the predicted negative indirect association of parental favoritism toward siblings in childhood on flourishing (H_{3b}).

Lastly, the present study predicts that the indirect effects in H_{1a}, H_{2a}, and H_{3a} are also moderated by perceived availability of family resources, specifically on the *b*-paths or from mediator to all three outcomes (i.e., favoritism toward siblings to burden, resentment, and flourishing). Specifically, high perceived family resources is expected to reduce the size of the predicted positive indirect associations of childhood parental favoritism toward siblings on caregiver burden (H_{1c}) and sibling resentment (H_{2c}), and reduce the size of the predicted negative indirect association of parental favoritism toward siblings in childhood on flourishing (H_{3c}).

Family Functioning Hypotheses

In the family functioning portion of the hypothesized model (see Figure 3 in Appendix E), mediation hypotheses are likewise proposed. The present study predicts that CC with siblings mediates the association between family functioning in childhood and caregiver burden, resentment towards siblings, and flourishing. Specifically, perceptions of childhood family functioning will be positively associated with CC with siblings, which, in turn, will be negatively associated with caregiver burden (H_{4a}) and sibling resentment (H_{5a}), and positively associated with flourishing (H_{6a}).

Next, the current study hypothesizes that the indirect effects in H_{4a}, H_{5a}, and H_{6a} are moderated by perceived felt obligation, particularly on the *a*-path. Specifically, high felt obligation is expected to amplify the size of the predicted negative indirect associations of childhood family functioning on caregiver burden (H_{4b}) and sibling resentment (H_{5b}), and intensify the size of the predicted positive indirect association of family functioning in childhood on flourishing (H_{6b}).

Lastly, the present study predicts that the indirect effects in H_{4a}, H_{5a}, and H_{6a} are also moderated by perceived availability of family resources, particularly on the *b*-paths. Specifically, high perceived family resources is expected to amplify the size of the predicted negative indirect associations of childhood family functioning on caregiver burden (H_{4c}) and sibling resentment (H_{5c}), and amplify the size of the predicted positive indirect association of family functioning in childhood on flourishing (H_{6c}).

Unresolved Hurt Feelings Hypotheses

In the unresolved hurt feelings portion of the hypothesized model (see Figure 4 in Appendix E), mediation hypotheses are also initially proposed. The present study predicts that CC with siblings mediates the association between unresolved hurt feelings from childhood toward siblings and caregiver burden, resentment toward siblings, and flourishing. Specifically, perceptions of childhood unresolved hurt toward siblings will be negatively associated with CC with siblings, which, in turn, will be negatively associated with caregiver burden (H_{7a}) and sibling resentment (H_{8a}), and positively associated with flourishing (H_{9a}).

Next, the current study hypothesizes that the indirect effects in H_{7a}, H_{8a}, and H_{9a} are moderated by perceived felt obligation, specifically on the *a*-path. Particularly, high felt obligation is expected to reduce the size of the predicted positive indirect associations of childhood unresolved hurt feelings toward siblings on caregiver burden (H_{7b}) and sibling resentment (H_{8b}), and reduce the size of the predicted negative indirect association of unresolved hurt feelings toward siblings from childhood on flourishing (H_{9b}).

Lastly, the present study predicts that the indirect effects in H_{7a}, H_{8a}, and H_{9a} are also moderated by perceived availability of family resources, particularly on the *b*-paths. Specifically, high perceived family resources is expected to reduce the size of the predicted positive indirect associations of childhood unresolved hurt feelings toward siblings on caregiver burden (H_{7c}) and sibling resentment (H_{8c}), and reduce the size of the predicted negative indirect association of unresolved hurt feelings toward siblings from childhood on flourishing (H_{9c}).

Methods

Procedures

Upon obtaining institutional review board (IRB) approval, participants were recruited via Prolific—a large online data collection agency. To qualify for the study, participants had to (1) *be 30 years or older*, (2) *have at least one parent* with a physical or mental condition requiring caregiving like dementia, cancer, immobility, etc., (3) *have one or more sibling(s)*, (4) *identify as an adult caregiver for their parent*, (5) *either live in-residence with their parent or occasional live-in/visit their parent for caregiving purposes*, and (6) *reside in the U.S*. If these inclusion criteria were met, participants were then provided a 15- to 25-minute survey via Prolific and compensated $5 upon completion.

Participants

Adult Caregiver

The average age of participants (N = 776) was 45 years (range = 30 to 90 years; SD = 10.86). Approximately half of the participants identified as men (n = 385 or 49.5%), followed by women (n = 379 or 48.6%), non-binary (n = 8 or 1%), and transgender (n = 4). The majority of participants were White/European-American (n = 541 or 69.4%), followed by Black/African-American (n = 153 or 19.6%), Latinx (n = 75 or 9.6%), Asian/Asian-American (n = 55 or 7.1%), Native-American (n = 11 or 1.4%), Arab (n = 6), and Pacific Islander (n = 1).

Many participants reported having the following levels of education: bachelor's degree (n = 317 or 40.6%), master's degree (n = 131 or 16.8%), some college experience (n = 126 or 16.5%), associate's degree (n = 89 or 11.4%), high school diploma (n = 86 or 11%), PhD/MD/advanced degree (n = 23 or 2.9%), or some high school experience (n = 3). Most participants were employed full-time (n = 529 or 67.8%), followed by part-time (n = 142 or 18.2%), unemployed (n = 83 or 10.6%), and retired (n = 22 or 2.8%). In terms of class by annual income (Pew Research Center, 2020), most participants were middle class or earning between $50,000-$149,00 (n = 451 or 58.1%), followed by lower class or earning between less than $10,000-$49,999 (*n* = 249 or 32.1%), and upper class or earning $150,000 or more (*n* = 66 or 8.5%).

Most of the participants also identified as heterosexual/straight (*n* = 574 or 73.6%), followed by bisexual (*n* = 137 or 17.6%), gay/lesbian (*n* = 48 or 6.2%), and asexual (*n* =12% or 1.5%). Almost half of the participants were married (*n* = 347 or 44.5%), followed by single (*n* = 267 or 34.2%), divorced (*n* = 83 or 10.6%), engaged (*n* = 42 or 5.4%), “other” (*n* = 22 or 2.8%), widowed (*n* = 15 or 1.9%), and remarried (*n* = 1). Most participants reported having children (*n* = 518 or 66.4%); of those who did have children, many reported having two children (*n* = 207 or 26.5%), followed by one child (*n* =163 or 20.9%), three children (*n* =100 or 12.8%), and four or more children (*n* = 49 or 6.3%). The average age of participants’ children was 18 years (range = 1 to 53 years; *SD* = 10.09).

Approximately half of participants had been providing care to their parent (i.e., primary care-recipient) between one month to two years (*n* = 394 or 50.5%), followed by two to four years (*n* = 200 or 25.6%), and four years or more (*n* = 185 or 23.7%). On a weekly basis, many participants provided care to their parent for two to eight hours (*n* = 221 or 28.4%), followed by nine to 15 hours (*n* = 218 or 28%), 16 to 25 hours (*n* = 155 or 19.9%), more than 40 hours (*n* = 84 or 10.7%), 26 to 40 hours (*n* = 83 or 10.6%), and one hour or less (*n* = 17 or 2.1%).

Non-Participant Parent with Medical Condition (Primary Care-Recipient)

The adult children also reported demographic information on their parent. The average age of parents (i.e., primary care-recipients with medical conditions) was 75 years (range = 40 to 103 years; *SD* = 10.25). The majority of the parents were women (*n* = 488 or 62.6%), followed by men (*n* = 290 or 37.2%), as well as White/European-American (*n* = 531 or 68.1%), followed by Black/African-American (*n* = 147 or 18.8%), Latina/o/x/e (*n* = 61 or 7.8%), Asian/Asian-American (*n* = 48 or 6.2%), Native-American (*n* =15 or 1.9%), Arab (*n* = 2), mixed-race (*n* = 2), and Pacific Islander (*n* = 1). Many of the parents had a bachelor's degree (*n* = 228 or 29.2%), followed by high school diploma (*n* = 216 or 27.7%), some college experience (*n* = 121 or 15.5%), associate's degree (*n* = 75 or 9.6%), some high school experience (*n* = 60 or 7.7.%), master's degree (*n* = 52 or 6.7%), PhD/MD/advanced degree (*n* = 19 or 2.4%), and other (*n* = 9 or 1.2%). Most parents were heterosexual/straight (*n* = 760 or 97.4%), followed by bisexual (*n* = 10 or 1.3%), and gay/lesbian (*n* = 4). In terms of relationship status, many parents were widowed (*n* = 324 or 41.5%), followed by married (*n* = 255 or 32.7%), divorced (*n* = 105 or 13.5), single (*n* = 82 or 10.5%), engaged (*n* = 6), and remarried (*n* = 4).

In addition, half of the parents lived at the participants' home/residence (*n* = 392 or 50.2%), many parents occasionally lived at the participants' home/residence or had the participants live at the parents' home/residence (*n* = 283 or 36.3%), and some parents had the participants live at the parents' own home/residence (*n* = 105 or 13.5%). Most parents moved into the participants' home/residence because of the medical condition (*n* = 397 or 50.9%), some parents were already living at the participants' home/residence before the medical condition was diagnosed (*n* = 103 or 13.2%), and some parents already had the participant living in the parents' home/residence before the medical condition was diagnosed (*n* = 75 or 9.6%). Many parents required caregiving for Alzheimer's or other dementias (*n* = 253 or 32.4%), followed by diabetes (*n* = 246 or 31.5%), Arthritis (*n* = 241 or 30.9%), other medical conditions (heart disease, immobility, schizophrenia; *n* = 221 or 28.3%), cancer (*n* = 137 or 17.6%), osteoporosis (*n* = 73 or 9.4%), and chronic kidney disease (*n* = 71 or 9.1%).

Non-Participant "Other Parent"

The adult children also provided demographic information on their other parent (if applicable). Most participants came from two-parent families (*n* = 669 or 92.8%) and a few from single-parent homes (*n* = 55 or 7.1%). Of those participants from two-parent families, many of the "other parents" were still alive (*n* = 336 or 43.1%) while half had already passed away (*n* = 388 or 49.7%); most "other parents" passed away before the caregiving process began (*n* = 291 or 75.2%) while some passed away during the process (*n* = 96 or 24.8%).

Of those who were still alive, most participants reported not providing care for the "other parent" (*n* = 228 or 67.9%) while some reported providing care (*n* = 108 or 32.1%). Of the "other parents" receiving care, most lived at the participants' home/residence (*n* = 67 or 62.6%) while some lived at their own home/residence (*n* = 40 or 37.4%). Of the "other parents" receiving care, some already had the participant move into "other parents'" home/residence before the medical condition was diagnosed (*n* = 32 or 29.6%), some moved into the participants' home/residence because of the medical condition (*n* = 28 or 25.9%), some were already living at the participants' home/residence before the medical condition was diagnosed (*n* = 16 or 14.8%), and some already had the participant living in the "other parents'" home/residence before the medical condition was diagnosed (*n* = 13 or 12%).

In terms of medical conditions, many "other parents" required caregiving for diabetes (*n* = 36 or 26.6%), followed by arthritis (*n* = 31 or 22.9%), other medical conditions (heart disease, immobility, schizophrenia; *n* = 27 or 20%), dementia/Alzheimer's or Parkinson's disease (*n* = 13 or 9.6%), cancer (*n* = 13 or 9.6%), osteoporosis (*n* = 9 or 6.6%), and chronic kidney disease (*n* = 6 or 4.4%). About half of the participants had been providing care to the "other parent" between one month to two years (*n* = 42 or 48.8%), followed by two to four years (*n* = 25 or 29%), and four years or more (*n* = 19 or 22%). On a weekly basis, many of participants provided care to their "other parents" for two to eight hours (*n* = 42 or 48.8%), followed by nine to 15 hours (*n* = 20 or 23.2%), 16 to 25 hours (*n* = 10 or 11.6%), one hour or less (*n* = 6 or 7%), 26 to 40 hours (*n* = 5 or 5.8%), and more than 40 hours (*n* = 3 or 3.5%).

The average age of "other parents" was 70 years (range = 48 to 105 years; *SD* = 9.54). About half of the "other parents" were women (*n* = 173 or 51.6%) while the other half were men (*n* = 161 or 48.1%). The majority of "other parents" were heterosexual (*n* = 331 or 99.1%) while a few were bisexual (*n* = 3). In terms of race/ethnicity, majority of "other parents" were White/European-American (*n* = 209 or 60.7%), followed by Black/African-American (*n* = 70 or 20.3%), Latinx (*n* = 28 or 8.1%), Asian/Asian-American (*n* = 27 or 7.8%), Arab (*n* = 4), Native-American (*n* = 3), and "other" (*n* = 3). In terms of education, many "other parents" had a high school diploma (*n* = 101 or 30.1%), followed by bachelor's degree (*n* = 99 or 29.6%), some college experience (*n* = 45 or 13.4%), master's degree (*n* = 29 or 8.7%), some high school experience (*n* = 27 or 8.1%), associate's degree (*n* = 18 or 5.4%), PhD/MD/advanced degree (*n* = 12 or 3.6%), and "other degree" (*n* = 4 or 1.2%).

Non-Participant Siblings

Finally, the participants reported demographic information on their siblings. Many participants self-reported having one sibling (*n* = 302 or 38.7%), followed by two siblings (*n* = 239 or 30.6%), three siblings (*n* = 132 or 16.9%), and four or more siblings (*n* = 106 or 13.6%). The average age of siblings was 45 years (range = 2 to 90 years; *SD* = 12.47). Most siblings were men (*n* = 863), followed by women (*n* = 724), transgender (*n* = 2), non-binary (*n* = 2), other (*n* = 4), and prefer not to say (*n* = 6). On average, siblings lived approximately one hour and thirty minutes away in driving distance from the primary parents' home (see "Residential proximity" under "Measures" section).

Measures

Descriptive statistics for all variables are provided in Table 1. This section provides details about how variables were measured and, when applicable, why certain scale items were removed from analyses. Following the stringent guidelines outlined by DeVellis (2016), any item loadings below .65 were dropped from the overall scales and removed from analyses. Although some item loadings from confirmatory factor analyses (CFAs) are reported in this section, the full set of results for these tests are reported in the next chapter.

Parental Favoritism (Predictor)

Parental favoritism in childhood was measured using an adapted version of the *Adult Sibling Relationship Questionnaire* (Stocker et al., 1997). Three-items, from the original 84, were rated on a five-point Likert-type scale (1 = *I was usually favored*; 2 = *I was sometimes favored*; 3 = *Neither sibling(s) or I were favored*; 4 = *Sibling(s) was sometimes favored*; 5 = *Sibling(s) was usually favored*). Participants responded to perceived favoritism toward themselves or their siblings from both primary parent (receiving care) and their "other parent" (if applicable): (1) *favoritism from primary parent* (i.e., "During childhood, do you think your parent favored your sibling(s) or you more?") and (2) *favoritism from "other parent"* (i.e., "During childhood, do you think your "OTHER" parent supported your sibling(s) or you more?"). Due to low factor loadings (i.e., below .55; see Table 10), all items from the "other" parental favoritism scale were removed from analyses. All remaining items from the parental favoritism scale were averaged, where higher numbers indicate greater perceived parental favoritism toward siblings during childhood. The overall scale achieved strong reliability (see Table 1).

Unresolved Hurt Feelings (Predictor)

Adult caregivers' unresolved hurt feelings toward siblings from their childhood was measured using rumination and TCP scales. First, rumination was measured using a modified version of the *Impact of Event Scale* (Horowitz et al., 1979). The six-items, five-point Likert-type scale ranges from 1 ("Not at all") to 5 ("Almost always") and includes two dimensions: (1) *intrusive thoughts* (i.e., "I randomly think about the time during childhood when my sibling(s) devalued me") and (2) *thought avoidance* (i.e., "I try not to think of how my sibling(s) treated me poorly during childhood"). Due to poor factor loadings (see Table 10), four items from the rumination scale were removed from analyses. Second, TCP was measured using a modified version of the *Taking Conflict Personally Scale* (Hample, 1999). The nine-items, five-point Likert-type scale ranges from 1 ("Strongly disagree") to 5 ("Strongly agree") and includes three dimensions: (1) *direct personalization* (i.e., "During childhood, I usually took any criticism from my sibling(s) personally"), (2) *persecution* (i.e., "In childhood, I often felt my sibling(s) tried hard to make sure that I lose during conflict"), and (3) *stress reaction* (i.e., "During childhood, I often felt stressed when there were a lot of arguments with sibling(s)"). Due to low factor loading (see Table 10), one item from the stress reaction subscale was removed from analyses. To measure unresolved hurting feelings as a whole, a composite variable was created using the average of the remaining items from both the rumination and TCP scales. The composite scale achieved strong reliability (see Table 1).

Family Functioning (Predictor)

Family functioning in childhood was measured using an adapted version of the *McMaster Family Assessment Devic*e (Epstein et al., 1983). This 12-items, five-point Likert-type scale, ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”), asked participants to indicate their level of agreement with some of the following sample items: “In times of crisis during childhood, my family and I turned to each other for support”; “During childhood, my family and I expressed our feelings to each other.” All items were averaged, where greater numbers indicate higher family functioning during childhood. The scale achieved strong reliability (see Table 1).

Communal Coping (Mediator)

Adult caregivers’ degree of CC with siblings was measured using a modified version of the *Communal Coping Scale* (Afifi et al., 2006). This 12-items, five-point Likert-type scale ranges from 1 (“Strongly disagree”) to 5 (“Strongly agree”) and includes two dimensions: (1) *shared appraisal* (e.g., “My sibling(s) and I view the stress of providing care to our parent in a unified way”) and (2) *joint action* (e.g., “My sibling(s) and I brainstorm different solutions as a team when providing care to our parent”). All items from both dimensions were converged and averaged, where greater numbers indicate higher CC with sibling caregivers. The scale achieved strong reliability (see Table 1).

Caregiving Burden (Outcome)

Caregiver burden was measured using a modified version of the *Zarit Burden Interview* (Zarit & Zarit, 1987). This five-items, five-point Likert-type scale, ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”), asked participants to respond to the degree to which they feel caregiving burden (e.g., “Since I started caregiving for my parent with an illness, I can feel myself getting angry around my parent and sibling(s)”; “Since I started caregiving for my parent with an illness, I do not have enough time for myself"; "Since I started caregiving for my parent with an illness, my health has suffered because of providing care to my parents with my sibling(s)"; "Since I started caregiving for my parent with an illness, I feel like I have lost control over my life"). Due to poor factor loading (see Table 10), one item was removed from analyses. All remaining items were summed, where higher numbers indicate greater caregiver burden. The scale achieved moderately strong reliability (see Table 1).

Resentment (Outcome)

Adult caregivers' resentment toward siblings was measured using a modified version of the *Caregiver Resentment Scale* (Thompson et al., 1995). This 10-items, five-point Likert-type scale, ranging from 1 ("Never") to 5 ("Very Often"), asked participants to reflect on their caregiving experience with their siblings and indicate how often they felt or thought of the following resentment-related items: "I have felt unappreciated by my sibling(s)"; "I feel the demands of caregiving might have lessened if my sibling(s) helped more." Due to poor factor loading (see Table 10), one item was removed from analyses. All remaining items were averaged, where higher numbers reflect greater resentment toward siblings. The scale achieved strong reliability (see Table 1).

Flourishing (Outcome)

Adult caregivers' flourishing was measured using an adapted version of the *Flourishing Scale* (Diener et al., 2009). This eight-items, five-point Likert-type scale ranges from 1 ("Strongly disagree") to 5 ("Strongly agree"). Participants were asked to indicate their (dis)agreement for items concerning their relationships, life purpose and meaning, self-esteem, and optimism (e.g., "I lead a purposeful and meaningful life"; "My social relationships are supportive and rewarding"; "I am optimistic about my future"). All items were averaged, where higher numbers reflect greater flourishing. The scale achieved strong reliability (see Table 1).

Felt Obligation (Moderator)

Felt obligation to provide care to ill parent was measured using an adapted version of the *Obligation Scale* (Cicirelli, 1991). This seven-items, five-point Likert-type scale ranges from 1 ("Strongly disagree") to 5 ("Strongly agree"). Participants were asked to consider the period right before beginning the caregiving process and indicate there (dis)agreement with the following sample items: "I felt a sense of obligation to help my parent"; "It was my duty to provide care to my parent"; "I felt that I should do my part in providing care to my parent." Due to low factor loadings (see Table 10), two items were removed from analyses. All remaining items were averaged, where higher numbers indicate greater perceived felt obligation to provide care for the parent with an illness. The scale achieved moderately strong reliability (see Table 1).

Family Resources Availability (Moderator)

Availability of family resources was measured using a modified version of the *Family Resources Scale* (Panganiban-Corales & Medina, 2011). Using this modified 10-items (from the original 12), five-point Semantic-Differential-type scale, participants indicated the degree to which they had family resources available at the onset of caregiving, ranging from 1 ("Not available at all") to 5 ("Extremely available"): (1) *medical* (i.e., "Medical insurance for parent"; "Help from healthcare providers"), (2) *financial* (i.e., "Stable family income from you, your siblings, and/or your 'other' parent"; "Stable emergency savings from you, your siblings, and/or your 'other' parent"), (3) *knowledge* (i.e., "Adequate understanding of parent’s medical illness”; “Adequate understanding of parent’s caregiving needs”), (4) *social* (i.e., “Support from family/extended family (e.g., spouse, children, uncles/aunts, cousins, etc.)”; “Support from social network (e.g., friends, coworkers, bosses, etc.)”), and (5) religious (i.e., “Strong faith in religion”; “Help from religious groups/leaders”). Items from the medical, financial, knowledge, and religious sub-scales surprisingly demonstrated weak factor loadings and were removed from analyses (see Tables 10 and 11). The remaining two items from the social sub-scale were averaged, where higher numbers indicate greater resource availability (specifically linked to having help from people in extended family and social network). The scale achieved acceptable reliability (see Table 1).

Culture (Control Variable)

Culture was measured using the *Auckland Individualism-Collectivism Scale* (Shulruf et al., 2007). This modified eight-items, five-point Likert-type scale ranges from 1 (“Strongly disagree”) to 5 (“Strongly agree”) and included the following sample items: (1) *individualism* (i.e., “I rely on myself most of the time”; “It is important that I do my job better than others”) and (2) *collectivism* (i.e., “Family members should stick together, no matter what sacrifices are required”; “It is my duty to take care of my family, even when I have to sacrifice what I want.” Due to low factor loadings (see Table 10), six of the eight items were removed from analyses. The remaining two items were averaged, where higher numbers indicate more collectivism. The scale achieved acceptable reliability (see Table 1).

Residential Proximity (Control Variable)

Caregiver siblings’ residential proximity to the ill parent was measured using a modified version of the spatial proximity measure used in Li et al.’s (2019) study. This one-item, seven-point Semantic-Differential-type scale ranges from 1 (“My sibling lives with my parent”) to 7 (“My sibling(s) lives more than three hours from my parent”), with an incremental increase of 30 minutes per point. Participants were asked to respond to the following item: “Since the start of the caregiving process with your sibling(s), please indicate how close or far your sibling(s) lived to your parent’s residence/home in driving distance/time.” Using Li et al.’s (2019) study as a guide, the threshold for living geographically “close” to the ill parent was set to 30 minutes or less (i.e., scale points one and two established residential proximity). The scale achieved acceptable reliability (see Table 1).

Data-Analytic Strategy

Prior to testing the full hypothesized moderated mediation model, the present study used CFA in Mplus (version 8.10; Muthen & Muthen, 1998-2022) to assess the factor structure of all composite variables. An omnibus CFA or measurement model was conducted with corresponding items for each type of latent variable: (1) *predictors* (i.e., parental favoritism in childhood, family functioning during childhood, unresolved hurt feelings towards siblings from childhood), (2) *mediator* (i.e., communal coping with siblings in response to caregiving demands), (3) *outcomes* (i.e., caregiver burden, resentment toward siblings, flourishing), and (4) *moderators* (i.e., felt obligation, family resources). Maximum likelihood (ML) estimation in Mplus was used to account for missing data. Hu and Bentler’s (1999) goodness-of-fit criteria were also used to evaluate fit of the measurement model and structural model: chi-square ($\chi 2$), root mean square error of approximation (RMSEA $\leq .06$), standardized root mean square residual (SRMR $\leq .06$), comparative fit index (CFI $\geq .95$), and Tucker-Lewis Index (TLI $\geq .95$). Following the guidelines by DeVellis (2016), only factor loadings at or above .65 were used for the final analyses.

After establishing the fit of the measurement model, the structural model was tested using structural equation modeling (SEM) in Mplus in five steps. First, the mediation hypotheses (H_{1a} to H_{9a}) were tested without covariates using bootstrapping techniques. The bootstrapping technique calculates the effect of (1) the predictor on the mediator and outcome, (2) the mediator's effect on the outcome while controlling for the predictor's effect, and (3) the indirect path from predictor to the outcome through the mediator (Preacher & Hayes, 2004). Second, all mediation hypotheses were tested with covariates to assess changes in indirect effects when controlling for gender, culture, and residential proximity. Third, to test whether the indirect effects of H_{1a} to H_{9a} were conditional at different levels of felt obligation (H_{1b} to H_{9b}), a moderated-mediation test was conducted without control variables. If significant moderating interactions were found, then simple slopes analyses were conducted with felt obligation at low (i.e., one *SD* below the mean), moderate (i.e., at the mean), and high (i.e., one *SD* above the mean) levels. Fourth, these moderation-mediation analyses were run again with the control variables mentioned above. Fifth, to test whether the indirect effects of H_{1a} to H_{9a} were conditional at different levels of family resources (H_{1c} to H_{9c}), another moderated-mediation test was conducted without control variables. If significant moderating interactions were found, then simple slopes analyses were conducted with family resources at low, moderate, and high levels. Finally, these analyses were repeated again with the aforementioned control variables. The final structural model, with all of the aforementioned variables, is reported below.

Chapter 3. Study One Results and Discussion

Chapter three reports the results of the measurement model and full (hypothesized) moderated-mediation model introduced in the previous chapter. Then, the results are followed by a discussion of theoretical and practical implications.

Quantitative Results

Preliminary Results

The descriptive statistics for all variables are provided in Table 1. In terms of the predictors, adult caregivers had moderately high perceptions of siblings being favored by their parent in childhood, moderate feelings of unresolved hurt toward siblings from childhood, and moderately high perceptions of family functioning in childhood. Regarding the mediator, adult caregivers had moderately high perceptions of CC with siblings in response to caregiving for their parent. In terms of outcomes, adult caregivers had high perceptions of flourishing, but moderate perceptions of caregiver burden and resentment toward siblings. Regarding the moderators, adult caregivers had high levels of felt obligation to provide care to their parent and moderately high levels of family resources, specifically help from members within extended family and social networks. Regarding the control variables, adult caregivers had high perceptions of collectivism and their siblings, on average, lived one hour and thirty minutes away from their parent's residence.

Correlations between all variables are provided in Table 2. The following correlations were significant and, most of them, were in the expected direction (except for favoritism toward siblings and unresolved hurt being positively associated with CC engagement with siblings). Perceptions of siblings being favored by their parent, unresolved hurt feelings toward siblings from childhood, and childhood family functioning were positively correlated with CC. CC was inversely associated with caregiver burden, resentment toward siblings, and residential proximity. CC was also positively associated with flourishing, family resources, and collectivism.

Confirmatory Factor Analysis

To assess the omnibus measurement model, a series of CFAs were conducted to evaluate goodness-of-fit. In the first CFA, conducted on the full omnibus model, all items for each factor (without covariates) were added to the analysis (for estimates, see Table 10), which can be referred to as Measurement Model 1. The results for Measurement Model 1 suggested poor model fit to the data: χ^2 (3,449, N = 776) = 14,321.926, p = .000, RMSEA = .064, CFI = .801, TLI = .794, SRMR = .063 (see Table 9). To improve fit, a second CFA was conducted by removing any factor loadings below .65 (DeVellis, 2016) from each factor in Measurement Model 1 (see Table 10 for estimates), which can be referred to as Measurement Model 2. Compared to Measurement Model 1, Measurement Model 2 fit the data better: χ^2 (2,043, N = 776) = 7,179.199, p = .000, RMSEA = .057, CFI = .886, TLI = .880, SRMR = .055 (see Table 9). The same strategy of dropping factor loadings below .65 from Model 2 (see Table 11) was used for the third CFA, fitting the data slightly better: χ^2 (1,979, N = 776) = 7,049.572, p = .000, RMSEA = .057, CFI = .886, TLI = .881, SRMR = .056 (see Table 9), which can be referred to as Measurement Model 3. To significantly improve model fit, a fourth CFA was conducted by first dropping factor loadings below .65 from Model 3 (see Table 12) and, thereafter, converting scales with eight or more items into three-parcel scales, which can be referred to as Measurement Model 4. Specifically, Measurement Model 4 parceled two predictors (i.e., unresolved hurt and family functioning), the mediator (i.e., communal coping), and one outcome (i.e., resentment). Measurement Model 4, with strong parcel loadings (range = .81 to .97; see Table 13 for estimates) for each factor, provided excellent fit to the data: χ^2 (341, N = 776) = 1,086.377, p = .000, RMSEA = .053, CFI = .962, TLI = .955, SRMR = .038 (see Table 9). As such, the present study proceeded with the measurement structure of Model 4 for the full moderated-mediation analysis using SEM.

Structural Equation Modeling

Using SEM with ML in Mplus, the present study tested the full moderated-mediation model, treating all variables as latent (except for gender). Below, the results for mediation are provided first before reporting the results for mediated-moderation. Although all latent variables were entered into the SEM simultaneously, the results for each predictor (i.e., parental favoritism, family functioning, unresolved hurt feelings) are presented separately in the sections below for organization and clarity. Regarding references to paths in the results, the *a*-path refers to the direct association from the predictor to the mediator, the *b*-path refers to the direct link from the mediator to the outcome, and the *c*-path refers to the direct relationship from the predictor to the outcome. For the mediation results, "partial" support for mediation hypotheses means that all paths were statistically significant, whereas "full" support means that all paths except for the *c*-path were statistically significant.

Moderation-Mediation for Parental Favoritism Hypotheses

For the parental favoritism model (see Figure 2), the present study predicted that CC mediates the association between parental favoritism in childhood and caregiver burden (H_{1a}), resentment toward siblings (H_{2a}), and flourishing (H_{3a}). In terms of direct associations, the results indicated that the *a*-path from parental favoritism toward siblings in childhood to CC was, unexpectedly, positive and significant (see Table 3). This suggests that the more participants felt their parent preferred their siblings over them in childhood, the more they engaged in CC with their siblings to provide care to their ill parent. Regarding the *b*-paths, the results revealed that CC was significantly and negatively associated with caregiver burden and resentment toward siblings, but was not significantly associated with flourishing (see Table 3). In other words, the more participants engaged in CC with their siblings, the less caregiver burden and resentment toward their siblings they reported feeling. In terms of the *c*-paths, the perception of siblings being favored by their parent in childhood was significantly and positively associated with caregiver burden and resentment toward siblings, but not significantly associated with flourishing (see Table 3). The findings suggest that the more participants felt that their siblings were favored by their parent in childhood, the more caregiver burden and resentment toward their siblings they felt during the caregiving process. However, parental favoritism did not significantly affect their ability to flourish amid providing care.

The mediating paths from parental favoritism to the outcomes through CC were not supported because even though mediation occurred, the association from parental favoritism to CC was in the opposite direction of what was hypothesized. The results revealed that CC partially mediated the association between parental favoritism toward siblings in childhood and caregiver burden; this mediation path, however, only approached statistical significance ($p = .056$; see Table 6). H_{1a} was not supported because the association between parental favoritism toward siblings in childhood and CC with siblings was positive, which is in the opposite direction of what was hypothesized. The results indicate that the association between parental favoritism toward siblings in childhood and resentment was significantly and partially mediated by CC with siblings ($p < .05$; see Table 6 for indirect and total effects). Similar results were obtained for H_{2a}, which was also not supported despite evidence of partial mediation. This is because the positive association between parental favoritism toward siblings in childhood and CC with siblings was in the opposite direction of the prediction. The results revealed that CC with siblings fully mediated the association between childhood parental favoritism toward siblings and flourishing at a significance level of $p = .054$ (see Table 6). Thus, H_{3a} was not supported because although full mediation occurred, parental favoritism toward siblings in childhood and CC with siblings were positively associated, which is in the opposite direction of the prediction.

It was also predicted that the indirect effects of H_{1a}, H_{2a}, and H_{3a} would be moderated by felt obligation (see Figure 2). Specifically, the moderating effect of high felt obligation on the *a*-path was expected to reduce the size of the predicted positive indirect associations of childhood parental favoritism toward siblings on caregiver burden (H_{1b}) and sibling resentment (H_{2b}), and decrease the size of the predicted negative indirect association of parental favoritism toward siblings in childhood on flourishing (H_{3b}). The results revealed that the indirect associations of childhood parental favoritism toward siblings on caregiver burden, flourishing, and resentment toward siblings through CC depended upon the level of felt obligation on the *a*-path ($p < .05$; see Figure 5).

To decompose the significant moderating interactions, simple slopes analyses were conducted with felt obligation at low, moderate, and high levels. The results revealed that the indirect effect was not supported at low and moderate levels, but statistically significant at high levels of felt obligation to predict less caregiver burden ($\beta = -.019$, $SE = .010$, $p < .05$). These results indicate that participants who perceived their siblings to be favored more by their parent in childhood experienced less burden through CC engagement with siblings, but only when they felt high levels of obligation to provide care to their ill parent. Next, the results revealed that the indirect effect was not supported at low levels, but statistically significant at moderate and high levels of felt obligation to predict less resentment toward siblings (β = -.061, *SE* = .020, $p < .05$). In other words, participants who perceived their siblings to be favored more by their parent in childhood felt less sibling resentment through CC engagement with siblings when they felt moderate to high obligation to provide care to their ill parent. Finally, the results revealed that the indirect effect was not supported at low and moderate levels, but statistically significant at high levels of felt obligation to predict more flourishing (β = .029, *SE* = .012, $p < .05$). Put differently, participants who perceived their siblings to be favored more by their parent in childhood experienced more flourishing through CC engagement with siblings when they felt high levels of obligation to provide care to their ill parent. Although the aforementioned results provide evidence of significant moderated mediation for predictions stemming from parental favoritism, these results were not in the directions originally proposed in the hypothesized model. Therefore, $H_{1b\text{-}3b}$ were not supported.

Next, it was predicted that the indirect effects of H_{1a}, H_{2a}, and H_{3a} would be moderated by the level of family resources (see Figure 2). Specifically, the moderating effect of high family resources on the *b*-paths was expected to reduce the size of the predicted positive indirect associations of childhood parental favoritism toward siblings on caregiver burden (H_{1c}) and sibling resentment (H_{2c}), and decrease the magnitude of the predicted negative indirect association of parental favoritism toward siblings in childhood on flourishing (H_{3c}). The results revealed that the indirect effects of childhood parental favoritism toward siblings to flourishing through CC depended upon the level of family resources; this result, however, only approached statistical significance ($p = .052$; see Figure

5). Moreover, no moderating effects were found for the indirect effects on burden and resentment; thus, H_{1c} and H_{2c} were not supported, respectively.

To decompose the interaction involving parental favoritism, CC, and flourishing, simple slopes analyses were conducted with family resources at low, moderate, and high levels. The results revealed that the indirect effect of H_{3a} was not supported at low and moderate levels, but high levels of family resources to predict more flourishing (at a statistically significance level of $p = .05$, $\beta = .021$, $SE = .011$). In other words, participants who perceived their siblings to be favored more by their parent in childhood experienced more flourishing through CC engagement with siblings when they reported having more family resources available while providing care to their ill parent. Therefore, even though this significant moderated mediation effect was found, it was not what was hypothesized. Subsequently, H_{3c} was not supported.

Moderated-Mediation for Family Functioning Hypotheses

For the family functioning model (see Figure 3), it was predicted that CC would mediate the association between family functioning in childhood and caregiver burden (H_{4a}), resentment toward siblings (H_{5a}), and flourishing (H_{6a}). In terms of direct associations, the results indicated that the *a*-path from family functioning in childhood to CC was positive and significant (see Table 4). Put differently, the more participants felt their family functioned well during childhood, the more they engaged in CC with their siblings amid caregiving for their ill parent. Regarding the *b*-paths, all associations between CC and caregiver burden, resentment toward siblings, and flourishing remained the same (see Table 4). In terms of the *c*-paths, perceived family functioning in childhood was non-significantly associated with caregiver burden and resentment toward siblings, but significantly and positively associated with flourishing (see Table 4). In other words, the more participants felt their family functioned well in childhood, the more they felt they were able to flourish in response to caregiving for their ill parent.

In terms of indirect paths, the results revealed that CC mediated the association between family functioning in childhood and caregiver burden ($p < .01$; see Table 6 for indirect and total effects), fully supporting H_{4a}. The results indicated that the association between childhood family functioning and resentment toward siblings was significantly mediated by CC ($p < .001$; see Table 6 for indirect and total effects), fully supporting H_{5a}. The results showed that the association between family functioning during childhood and flourishing was significantly mediated by CC ($p < .001$; see Table 6 for indirect and total effects), supporting H_{6a}.

Next, it was predicted that the indirect effects of H_{4a}, H_{5a}, and H_{6a} would be moderated by felt obligation (see Figure 3). Specifically, the moderating effect of high felt obligation on the *a*-path was expected to amplify the size of the predicted negative indirect associations of childhood family functioning on caregiver burden (H_{4b}) and sibling resentment (H_{5b}), and increase the size of the predicted positive indirect association of family functioning in childhood on flourishing (H_{6b}). The results revealed that the indirect effects of childhood family functioning on caregiver burden, flourishing, and resentment toward siblings were not conditional at different levels of felt obligation on the *a*-path ($p = .47$; see Figure 6). Thus, H_{4b}, H_{5b}, and H_{6b} were not supported.

Lastly, the current study also predicted that the indirect effects of H_{4a}, H_{5a}, and H_{6a} are also conditional at levels of family resources (see Figure 3). Specifically, the moderating effect of high family resources on the *b*-paths was expected to amplify the size of the predicted negative indirect associations of childhood family functioning on caregiver burden (H_{4c}) and sibling resentment (H_{5c}), and amplify the magnitude of the predicted positive indirect association of family functioning in childhood on flourishing (H_{6c}). The results revealed that the indirect effects of childhood family functioning on flourishing depended upon family resources (but only significant at $p = .052$; see Figure 6). However, no moderating effects were found for the indirect effects on burden and resentment; thus, H_{4c} and H_{5c} were unsupported, respectively.

To decompose the significant moderating interaction, simple slopes analyses were conducted with family resources at low, moderate, and high levels. The results revealed that the indirect effect of H_{6a} was not supported at low levels, but statistically significant at moderate ($p < .01$, $\beta = .161$, $SE = .049$,) and high ($\beta = .099$, $SE = .030$, $p < .01$) levels of family resources to predict more flourishing, supporting H_{6c}. In other words, participants who perceived their family to function well in childhood experienced more flourishing through CC engagement with siblings when they reported having moderate to high family resources available while providing care to their ill parent.

Moderated-Mediation for Unresolved Hurt Feelings Hypotheses

For the unresolved hurt feelings model (see Figure 4), it was predicted that CC would mediate the association between unresolved hurt feelings toward siblings from childhood and caregiver burden (H_{7a}), resentment toward siblings (H_{8a}), and flourishing (H_{9a}). In terms of direct associations, the results indicated that the *a*-path from unresolved hurt feelings toward siblings from childhood to CC was, unexpectedly, positive and significant (see Table 5). Put differently, the more participants felt hurt by their siblings in childhood, the more they engaged in CC with them to support their ill parent. Regarding the *b*-paths, all associations between CC with siblings and caregiver burden, resentment toward siblings, and flourishing remained identical (see Table 5). In terms of the *c*-paths, feelings of unresolved hurt toward siblings from childhood was significantly and positively associated with caregiver burden and resentment toward siblings, and non-significantly associated with flourishing (see Table 5). In other words, the more participants felt unresolved hurt toward siblings from childhood, the more caregiver burden and resentment toward their siblings they felt during the caregiving process. However, childhood unresolved hurt feelings toward siblings did not significantly affect their ability to flourish while providing care.

In terms of indirect paths, the results revealed that CC with siblings significantly and partially mediated the association between unresolved hurt feelings from childhood and caregiver burden ($p < .05$; see Table 8 for indirect and total effects). However, H_{7a} was not supported because although partial mediation occurred, unresolved hurt feelings toward siblings from childhood and CC with siblings were positively associated, which is in the opposite direction of the prediction. The results indicated that the association between unresolved hurt feelings toward siblings from childhood and resentment was significantly and partially mediated by CC ($p < .05$; see Table 8 for indirect and total effects). Similarly, H_{8a} was not supported because despite evidence of partial mediation, the positive association between unresolved hurt feelings toward siblings from childhood and CC with siblings was in the opposite direction of the prediction. The results revealed that CC significantly and fully mediated the association between unresolved hurt feelings toward siblings from childhood and flourishing ($p < .05$; see Table 8). However, H_{9a} was not supported because although full mediation happened, childhood unresolved hurt feelings toward siblings and

CC with siblings were positively associated, which is in the inverse direction of the prediction.

Next, the present study also predicted that the indirect effects of H_{7a}, H_{8a}, and H_{9a} were moderated by felt obligation (see Figure 4). Specifically, the moderating effect of high felt obligation on the *a*-path was expected to reduce the size of the predicted positive indirect association of childhood unresolved hurt feelings toward siblings on caregiver burden (H_{7b}) and sibling resentment (H_{8b}), and decrease the size of the predicted negative indirect effect of unresolved hurt feelings toward siblings in childhood on flourishing (H_{9b}). There was no significant moderating effect for feelings of obligation to provide care to the ill parent on the *a*-path ($p = .23$; see Figure 7). Thus, H_{7b}, H_{8b}, and H_{9b} were unsupported.

Finally, it was predicted that the indirect effects of H_{7a}, H_{8a}, and H_{9a} would be moderated by family resources (see Figure 4). Specifically, the moderating effect of high family resources on the *b*-paths was expected to reduce the size of the predicted positive indirect associations of childhood unresolved hurt feelings toward siblings on caregiver burden (H_{7c}) and sibling resentment (H_{8c}), and decrease the size of the predicted negative indirect association of unresolved hurt feelings toward siblings in childhood on flourishing (H_{9c}). The results revealed that the indirect effects of childhood unresolved hurt feelings toward siblings on flourishing depended upon the level of family resources on the *b*-path; that result, though, only approached statistical significance ($p = .052$; see Figure 7). No moderating effects were found for the indirect effects on burden and resentment; thus, H_{7c} and H_{8c} were not supported, respectively.

To decompose the significant moderating interaction, simple slopes analyses were conducted with family resources at low, moderate, and high levels. The results revealed that the indirect effect of H_{9a} was not supported at low levels, but statistically significant at moderate ($\beta = .016$, *SE* = .008, $p < .05$) and high ($\beta = .027$, *SE* = .014, $p < .05$) levels of family resources to predict more flourishing. In other words, participants who felt unresolved hurt toward their siblings from childhood experienced more flourishing through CC engagement with siblings when they reported having moderate to high family resources available while providing care to their ill parent. However, H_{9c} was not supported because although moderation effects were present, the positive association between unresolved hurt feelings and CC engagement with siblings was in the inverse direction of the prediction.

Discussion

As caregiving demands continue to strain family members (Reinhard et al., 2023), many siblings are likely coordinating their resources to provide care for their older parents with medical conditions. Ensuring that older parents receive adequate care from their adult children is essential to both recovering from medical ailments and/or seamlessly transitioning to end-of-life (Luichies et al., 2021). Unfortunately, research shows that patients may not receive the care needed from family members due to pre-existing relationship issues potentially stemming from experiences in adult caregivers' family history (Ray et al., 2018). Thus, investigating the role of family history in shaping adult caregivers' ability to enact CC with siblings when providing care to their ill parent is needed to better understand and improve the caregiving experience. Little research, however, has explored how experiences from family history drive CC engagement to predict coping outcomes in the context of caregiving.

The present study examined the process by which experiences from adult caregivers' family history shape CC with their siblings while providing care to their parent with a medical illness and how this coping process predicts individual and relational coping outcomes. The overall results suggest that experiences from family history, such as childhood parental favoritism towards siblings, unresolved hurt feelings toward siblings, and family functioning from childhood, play important but different roles in adult caregivers' ability to engage in CC with siblings. Although some associations between family history and CC engagement with siblings were in opposite directions of the hypothesized model, the results provide novel insights into the complexity of the CC process in families when adult siblings are caring for an ill parent.

Experiences of childhood parental favoritism predicted adult caregivers' enactment of CC with siblings while providing care to their parent. The results revealed that adult caregivers' perceptions of siblings being favored in childhood operated through CC with siblings to predict more caregiver burden and resentment toward siblings, and less flourishing. Opposite of what was hypothesized, the more adult caregivers felt their siblings were favored by their ill parent during childhood, the more they engaged in CC with those favored siblings to care for their parent, which, in turn, predicted less caregiver burden and resentment toward their siblings, and greater flourishing. This finding only held true, however, when the adult caregivers felt moderate and high levels of obligation to care for their parent (but not low levels). In addition, there was a positive indirect effect of favoritism of siblings on flourishing through CC. However, this indirect effect only held true when the care provider felt like their family had a high level of resources at the onset of care coordination.

Family functioning in childhood also appeared to be salient for adult caregivers coordinating care for their parent while coping with their siblings. Supporting the hypothesized model, adult caregivers' perceptions of childhood family functioning operated via CC enactment with siblings to predict less caregiver burden and resentment toward siblings, and more flourishing amid caregiving for their parent with a medical ailment. However, these mediating paths did not depend upon the degree of felt obligation. Consistent with the hypothesized model, moderate and high levels of family resources did shape the indirect association between childhood family functioning and flourishing only, but not caregiver burden and resentment. In other words, adult caregivers with higher perceptions of childhood family functioning were more likely to engage in CC with their siblings when caring for their parent. This CC, in turn, predicted greater individual flourishing. This mediating effect, however, only held true when individuals reported having moderate to high family resources when caregiving commenced.

Having ongoing hurt feelings inflicted by siblings during childhood likewise shaped the likelihood of adult caregivers engaging in CC with their siblings in response to caregiving for their ill parent. Unlike what was hypothesized, the more hurt feelings from childhood the caregivers reported toward their siblings, the more they engaged in CC with their siblings while they were caregiving for their ill parent, which, in turn, shaped coping outcomes. Moreover, the indirect associations between childhood unresolved hurt toward siblings and the coping outcomes were not dependent upon felt obligation. However, moderate and high levels of family resources did shape the indirect association between unresolved hurt toward siblings from childhood and flourishing only, but not caregiver burden and resentment. Unlike what was predicted, individuals who felt more hurt by their siblings in childhood were more likely to communally cope with their siblings when caring for their parent, which, in turn, predicted greater flourishing. This mediating effect, however, was only realized when the caregivers reported having moderate to high family resources at the beginning of caregiving.

Taken together, these results highlight an overarching implication: *family history and the caregiving context matter*, especially when communally coping in response to managing parental care needs. The discussion proceeds in three parts. First, theoretical implications of significant results are offered and explanations for non-significant results are justified. Second, practical implications for families immersed in the caregiving process are advanced, emphasizing the imperative role of family history. Third, limitations based on the study design and future research directions are considered.

Theoretical Implications of CC and Family Functioning

The results of the present study corroborate and extend arguments set forth in the TMCC related to relational quality as a predictor of CC and resources as a moderator (see Afifi et al., 2020). The TMCC holds that better relational quality brought to stressful situations predicts more CC engagement, which, in turn, shapes greater well-being (Afifi et al., 2020), which was corroborated in study one. In support, adult caregivers' perceptions of better family functioning in childhood were associated with more CC engagement with siblings, which, in turn, predicted less caregiver burden and resentment toward siblings, and more flourishing while providing care to their parent with a medical condition. Adult caregivers likely experienced greater well-being through CC with siblings because of the positive effects family functioning can have on communicative patterns amid teamwork. Indeed, research shows that families that function well tend to collectively engage in productive communication (Koerner & Fitzpatrick, 2002), enhancing the likelihood of collaborative efforts in response to stress management. In study one, adult caregivers who felt that their family functioned well in childhood plausibly coordinated caregiving tasks with their siblings using more supportive communication and equitable division of caregiving tasks, which may explain why they reported experiencing greater well-being (i.e., less burden and resentment, more flourishing). Therefore, the relational quality *brought* to the caregiving experience, which was seemingly shaped by adult caregivers' perceptions of childhood family functioning, predicted CC engagement with siblings, which, in turn, shaped well-being outcomes, supporting arguments stemming from the TMCC (Afifi et al., 2020).

According to the TMCC (Afifi et al., 2020), the pre-existing resources family members bring to life stressors can not only shape their ability to enact CC, but also influence CC functionality, which was indirectly supported by study one. Adult caregivers who perceived their family to function well in childhood experienced more flourishing via CC enactment with siblings when they reported having moderate to high family resources at the onset of caregiving (but not low resources), specifically support from both extended family (i.e., aunts/uncles, cousins) and people in their social network (i.e., friends, colleagues). Adult caregivers likely reported more flourishing, when having moderate to high family resources, because close others from their extended family and social networks helped them more cohesively manage care coordination, reducing the caregiving load shared between the familial network. Indeed, research shows that having more family resources improves family functioning in response to caregiving for family members with cancer (Panganiban-Corales & Medina, 2011), likely shaping caregivers' ability to flourish. The different types of support received from members outside of adult caregivers' immediate family network likely reduced their caregiver strain and enhanced collective-efficacy while managing caregiving demands to predict more flourishing. Thus, having more family resources at the start of caregiving seemingly made CC engagement with siblings more likely and the coping outcomes more positive (which indirectly alludes to CC functionality), supporting TMCC-based arguments (Afifi et al., 2020).

Why Childhood Disfavoritism and Unresolved Hurt Positively Predicted CC

Although the predicted negative association between CC engagement with siblings and childhood parental favoritism toward siblings was in the opposite direction of what was hypothesized, contextual details and cultural perspectives may offer explanations for these unexpected results. Adult caregivers' perception that their siblings were more favored by their parent in childhood was positively associated with CC enactment with those siblings, which seems counterintuitive to what is set forth in the TMCC (see Afifi et al., 2020). Parental favoritism, regardless of which children are favored, has been negatively linked to sibling warmth and closeness, and positively associated with sibling conflict (Finzi-Dottan & Cohen, 2010). The negative effects of favoritism, then, should suggest poorer relational quality between siblings, which Afifi et al. (2020) argued should impede CC engagement. However, adult caregivers likely engaged in CC with favored siblings because the context of caregiving may have generated empathy toward parental suffering and, by extension, shaped desire to work with siblings despite the parent's favoritism toward their siblings in childhood. Research shows that people tend to respond with more empathy when they perceive others in need and care about their welfare (Batson et al., 1995; Monin & Schulz, 2009). It is possible that adult caregivers chose to communally cope with their favored siblings, despite the strain differential treatment often has on sibling relationships, because they were empathetic to the suffering of their parent dealing with health conditions in the caregiving context.

Another potential explanation for this unexpected positive association between CC engagement with siblings and perceptions of childhood favoritism toward siblings could be culture. In this sample (although most participants identified as White/European-American), perceived collectivism was rather high (*M* = 4.09 on a 5-point scale), suggesting that adult caregivers may have decided to engage in CC with their favored siblings for the greater good of the family amid caregiving. Indeed, research shows that groups with higher perceptions of collectivism tend to sacrifice individual goals to support family needs compared to individualistic groups (Bhawuk, 2023). In the caregiving context, where medical ailments compromise individual functionality and increase dependency on others, older parents with medical conditions clearly need support from their family members. As such, some adult caregivers may have sacrificed their own pride or well-being to work with siblings, who were favored, to collectively manage the caregiving needs of their ill parent.

While the hypothesized negative associations between adult caregivers' unresolved childhood hurt toward siblings and CC engagement with siblings was in the opposite direction, sample characteristics may explain these unexpected results. Unresolved hurt feelings toward siblings from childhood, surprisingly, had a positive association with CC engagement with siblings, which seems to contradict the arguments presented in the TMCC (Afifi et al., 2020). Afifi et al. (2020) explain that better relational quality is more predictive of CC, but unresolved hurt feelings toward siblings from childhood would suggest poorer relational quality at the onset of caregiving. One plausible explanation for this unexpected, positive association may be perceptions of sibling closeness in adulthood, which the present study measured. In this sample, adult caregivers' perceptions of sibling closeness in adulthood (*M* = 3.28 on a 5-point scale) were much higher than their feelings of unresolved childhood hurt toward siblings (*M* = 2.65 on a 5-point scale). In addition, the average age of adult caregivers in this sample was 45 years and, therefore, they reflected on experiences from over two decades ago (and, for some participants, more than two). These sample characteristics might suggest that residual hurt from childhood had likely been ameliorated and sibling relationships had possibly been repaired to a certain degree over their life course. Thus, contextual details, cultural perspectives, and sample characteristics provide plausible explanations for the unexpected positive associations between both parental favoritism toward siblings in childhood and unresolved childhood hurt toward siblings and CC engagement with siblings.

Practical Implications for Family Caregivers

Considering the vital role of family history in the caregiving context, two practical implications are offered linked to (1) adult caregivers' agency/choice and (2) trauma-informed caregiving interventions. Caregiver interventions must stress the importance of adult caregivers' agency when deciding to engage in CC with siblings (or family members), taking into account complex family histories. Although initial medical diagnoses that emergently necessitate family caregiving are outside of people's control, the decision to engage in CC with sibling caregivers, who were favored or may have inflicted hurt during childhood, is within the control of adult caregivers. Research shows that adult caregivers, who have experienced maltreatment from their family members in the past, face difficulties when deciding whether to provide care to, or work in collaboration with, those relatives (Kong et al., 2021). In the caregiving context, practitioners (i.e., social workers, medical professionals, therapists) can help facilitate this decision-making process by helping adult caregivers unpack "what they feel, want, and know about themselves" (Brown, 2012, p. 42), as shaped by their complicated history with family members. This initial step will not only help adult caregivers realize they have agency to choose CC engagement with siblings, but also prevent them from feeling forced to collaborate with sibling caregivers who were favored or hurt them in the past.

Caregiving interventions should also infuse a trauma-informed approach to help adult caregivers, with complicated family histories, engage in CC with siblings during caregiving or end-of-life processes. In this study, adult caregivers engaged in CC with siblings despite past familial issues (i.e., negative effects of favoritism and unresolved hurt). Research shows that adult caregivers, who have a history of familial maltreatment, may experience more family conflict during end-of-life (Kramer et al., 2010) and experience heightened altercations with abusive family members in times of treating illness (Monahan, 2010). Therefore, practitioners should develop trauma-informed caregiver interventions at the family level. Although trauma-informed caregiver interventions have primarily focused on the care-recipient (Ganzel, 2018), increasing emphasis has been placed on the importance of assessing trauma of family caregivers (Kusmaul, 2018). In addition to increasing their own awareness of the effects of maltreatment in family history on caregiving processes (Brown, 2012), practitioners can carefully observe behavioral indications of such maltreatment in family interactions amid care (see Wygant et al., 2011). Ultimately, caregiver interventions must emphasize the role of choice and integrate trauma-informed support at the family level to help adult caregivers and their siblings navigate the challenges with care coordination for their ill parent as shaped by their family history.

Limitations and Future Directions

Although these expected and unexpected study one results offer heuristic value, these results must be set within their limitations. One limitation of the present study is the cross-sectional design, which limits the ability to draw causal inferences regarding the associations between family history, CC enactment with siblings, and coping outcomes. Another limitation of the current study relates to sample characteristics concerning race/ethnicity. Specifically, most caregivers in this sample were White/European-American (n = 541 or 69.4%), which limits the ability to better understand caregiving experiences of diverse racial groups. Third, the adult caregivers in this sample were relatively stable financially (i.e., most participants were middle class by annual income), which limits the capacity to better understand how financial hardship plays a role in CC engagement with siblings. Lastly, low factor loadings led to the elimination from analyses measures of favoritism experienced in childhood caused by the “other parent,” which limits the study’s ability to draw conclusions about overall differential treatment or compare how difference in favoritism by one parent over another shapes CC engagement with siblings and well-being outcomes amid caregiving.

Future research should longitudinally investigate the role of family history in affecting CC with siblings. Researchers should examine, over time, how perceptions of childhood favoritism, adulthood favoritism, and unresolved hurt toward siblings at baseline influence CC with siblings as progression of medical ailment intensifies the caregiving experience. In addition, scholars should study the effects of family history on CC engagement with family members using more diverse samples to capture variation shaped by racial, ethnic, and cultural differences. Finally, future research should test how overall favoritism from both parents shape CC engagement amid caregiving, and compare how distinctions in favoritism between parents shape CC and coping outcomes.

Chapter 4. Study Two Rationale, Research Questions, and Methods

This chapter builds upon the results of study one by proposing a qualitative study to gain richer insights into how family history shapes CC (dis)engagement with siblings in response to managing parental care needs, which, in turn, makes the coping process more or less functional. To be clear, CC dysfunction refers to the process by which family (or group) members attempt to enact, or engage in, CC to manage stressors, but coping together becomes ineffective (i.e., heightened conflict, arguments, disagreements), yielding unfavorable coping outcomes like increased stress and burden, and reduced well-being and relational quality (Afifi et al., 2020). The chapter begins with a rationale for mixed-methods research, culminating into research questions. Next, the methods for the study are outlined. Finally, the data-analytic techniques for this qualitative study are discussed.

Justification for Mixed-Methods

Despite the heuristic value of study one, some of the findings were either unexpected or non-significant. Specifically, the positive associations between both unresolved hurt feelings and parental favoritism toward siblings and CC engagement with siblings were unexpected, whereas felt obligation was non-significant in its moderating effects on the association between both unresolved hurt feelings and family functioning with CC engagement with siblings. In addition, family resources only moderated the indirect effects on flourishing, but not caregiver burden and resentment toward siblings. As such, implementing a mixed-methods design can potentially provide explanations for the unexpected and non-significant quantitative results from study one (Ivankova et al., 2006).

This research project is one of the first to examine how relational factors *brought* from family history to the caregiving process, such as parental favoritism and unresolved hurt toward siblings, impact CC engagement with siblings and well-being outcomes. Although results from study one offer empirical evidence of the theoretically-driven predictions concerning CC, little is known about *why* adult caregivers offer help to, or collaborate with, family members, despite being hurt by them during childhood. Therefore, a mixed-methods design is necessary to help unravel *how* unfavorable experiences from one's childhood shape the CC experience with siblings when caregiving for an ill parent.

Importantly, the design of study two accounts for some of the limitations in study one. Study two will recruit a diverse sample to gain richer insights into the lived experiences of adult caregivers from different racial backgrounds. Research shows that racial and ethnic identity shape how people communicate and interpret communication from others (Chang, 2014; Davis & Cardwell, 2022), which can play an important role when racially-diverse adult caregivers and their siblings coordinate care for their parent. In addition, the present study will recruit adult caregivers who currently deal with financial hardship while coordinating their efforts with siblings to provide care. Research shows that resources like financial stability and savings can positively predict family functioning when navigating caregiving demands (Panganiban-Corales & Medina, 2011), whereas financial instable should arguably impede the extent of CC. Recruiting racially diverse caregivers who may deal with financial hardship will combat some of the limitations from study one to ultimately paint a more diverse picture of CC in response to caregiving.

Even though there are numerous types of mixed-methods approaches (see Creswell & Clark, 2017), the two-phase, *sequential-explanatory* design is most appropriate for this dissertation. In phase one, quantitative data are collected followed by qualitative data collection in phase two (Creswell et al., 2003). The purpose of study two is to help explain more in-depth the findings obtained from study one (Ivankova et al., 2006), as well as discover insights into the unexpected, as well as non-significant, results.

A mixed-methods design is appropriate for two reasons. First, the quantitative results from study one provided insights into which experiences from adult caregivers' family history promote (or impede) CC, *which*, in turn, shaped their coping-related outcomes with sibling caregivers in (un)favorable ways. Second, collected through in-depth interviews, the qualitative data will build on the results from study one by shedding light on *why* and *how* adult caregivers provide care and engage in CC with siblings for an ill parent despite unresolved hurt feelings or perceived favoritism from childhood. The qualitative data will provide more in-depth insight than the quantitative data on adult caregivers' lived experiences with feelings of hurt and perceptions of favoritism, and how such emotions influence the caregiving experience and CC process. In addition, the focus on resources will also shed light on how the availability and sharing of family resources shape CC engagement and coping outcomes like burden and resentment. Thus, the present study poses the following research questions:

Research Questions

RQ_1: To what extent do adult caregivers, who have unfavorable family histories composed of favoritism and unresolved hurt, still engage in CC with siblings to provide care to their parent with a medical ailment? If they do engage in CC with their siblings, why do they do so?

RQ_2: In what ways, if at all, do (a) parental favoritism in childhood, (b) unresolved childhood hurt toward siblings, and (c) family resources at the onset of caregiving shape CC engagement with siblings? And, how do these factors, if at all, make CC engagement more or less functional?

Methods

Inclusion Criteria

To participate in study two, participants had to satisfy the following inclusion criteria: (1) *be 30 years or older*, (2) *have at least one parent with a medical condition*, (3) *have one or more siblings*, (4) *identify as a caregiver*, (5) *either live in-residence with a parent or occasionally live-in/visit parent for caregiving purposes*, and (6) *reside in the U.S.*

Recruitment

Upon obtaining IRB approval, social media-friendly flyers for study two were generated by the research team, which included the principal investigator (PI) and seven undergraduate research assistants (RAs). These flyers encouraged adult caregivers with financial hardship, who were current (or in the past) caregiving for an ill parent with siblings, to participate in the study (see Appendix B for both flyers). The research team initially recruited participants using convenience and snowball sampling techniques. Flyers were conveniently disseminated to known adult caregivers from the researchers' social networks. Hoping for a snowballing effect, potential participants from the research teams' social network were then asked to share the flyers with others who were also providing care (or had provided care in the past) for parents with their siblings. The research team also disseminated flyers at local apartment complexes, at colleges/universities, and with an online caregiving organization (i.e., Southern Caregiver Resource Center).

Participants

Adult Caregiver

The sample consisted of 30 adult caregivers. The average age of the participants was 48 years (range = 30 to 72 years; *SD* = 12.23). Most of the participants identified as women (*n* = 21 or 70.0%), followed by men (*n* = 8 or 27.0%), and non-binary (*n* = 1 or 3.0%). The participants also identified as Asian/Asian-American (*n* = 10 or 33.3%), Latinx (*n* = 7 or 23.3%), Black/African-American (*n* = 6 or 19.6%), White/European-American (*n* = 5 or 16.6%), Arab (*n* = 1 or 3.0%), and “other” (*n* = 1 or 3.0%).

Many participants reported having a(n) bachelor’s degree (*n* = 9 or 30.0%), high school diploma (*n* = 9 or 30.0%), some college experience (*n* = 6 or 20.0%), some high school experience (*n* = 4 or 13.3%), and master’s degree (*n* = 2 or 6.6%). Most participants were employed full-time (*n* = 21 or 70.0%), followed by part-time (*n* = 4 or 13.3%), unemployed (*n* = 3 or 10.0%), and retired (*n* = 2 or 6.6%). In terms of class by annual income (Pew Research Center, 2020), a little more than half of the participants were middle class or earning between $50,000-$149,00 (*n* = 16 or 53.3%), followed by lower class or earning between less than $10,000-$49,999 (*n* = 12 or 40.1%), and upper class or earning $150,000 or more (*n* = 2 or 6.6%).

Most of the participants identified as heterosexual/straight (*n* = 24 or 80.0%), followed by bisexual (*n* = 2 or 6.6%), gay/lesbian (*n* = 2 or 6.6%), and two participants either selected “other” or preferred not to disclose sexual-orientation. Almost half of the participants were married (*n* = 14 or 46.6%), followed by divorced (*n* = 8 or 26.6%), single (*n* = 6 or 20.0%), widowed (*n* = 1 or 3.3%), and remarried (*n* = 1 or 3.3%). Most participants reported having children (*n* = 21 or 70.0%); of those who had children, most reported having two children (*n* = 12 or 57.1%), followed by one child (*n* = 5 or 28.5%), three children (*n* = 2 or 9.5%), and four or more children (*n* = 2 or 9.5%). The average age of participants' children was 20 years (range = 1 to 50 years; *SD* = 7.27).

Most of the participants had been providing care to their parent (i.e., primary care-recipient) between one month to two years (*n* = 20 or 66.6%), followed by two to four years (*n* = 6 or 20.0%), and four years or more (*n* = 4 or 13.3%). On a weekly basis, many participants provided care to their parent for 16 to 25 hours (*n* = 9 or 30.0%), followed by nine to 15 hours (*n* = 6 or 20.0%), more than 40 hours (*n* = 5 or 16.6%), 26 to 40 hours (*n* = 5 or 16.6%), and two to eight hours (*n* = 5 or 16.6%).

Non-Participant Parent with Medical Condition (Primary Care-Recipient)

The adult children also reported demographic information on their parent, the primary care-recipient. The average age of parents (i.e., the primary care-recipients with medical conditions) was 80 years (range = 57 to 97 years; *SD* = 9.81). Most of the parents were women (*n* = 18 or 60.0%), followed by men (*n* = 12 or 40.0%). Many parents were Latinx (*n* = 9 or 30.0%), Asian/Asian-American (*n* = 8 or 26.6%), White/European-American (*n* = 8 or 26.6%), Black/African-American (*n* = 4 or 13.3%), and Arab (*n* = 1 or 3.3%).

Many of the parents had a high school diploma (*n* = 9 or 30.0%), followed by some high school experience (*n* = 7 or 23.3%), a bachelor's degree (*n* = 6 or 20.0%), some college experience (*n* = 5 or 16.6%), a master's degree (*n* = 2 or 6.6%), and a PhD/MD/advanced degree (*n* = 1 or 3.3%). Most parents were heterosexual/straight (*n* = 28 or 93.3%), followed by bisexual (*n* = 1 or 3.3%), and gay/lesbian (*n* = 1 or 3.3%). Many parents were widowed (*n* = 13 or 43.3%), followed by married (*n* = 9 or 30.0%), divorced (*n* = 6 or 20.0%), and remarried (*n* = 2 or 6.6%).

Half of the parents had the participants live at the parent's own home/residence (*n* = 15 or 50.0%), many parents lived at the participants' home/residence (*n* = 8 or 26.6%), and some parents occasionally lived at the participants' home/residence or had the participants live at the parents' home/residence (*n* = 7 or 23.3%). Many parents required caregiving for Alzheimer's or other dementia (*n* = 13 or 43.3%), followed by cancer (*n* = 8 or 26.6%), arthritis (*n* = 5 or 16.6%), other medical conditions (heart disease, immobility, schizophrenia, etc.; *n* = 3 or 10.0%), and osteoporosis (*n* = 1 or 3.3%).

Non-Participant "Other Parent"

The participants also provided demographic information on their other parent (if applicable). Most participants came from two-parent families (*n* = 29 or 96.6%). Of those participants from two-parent families, most of the "other parents" were still alive (*n* = 24 or 82.7%) while some had already passed away (*n* = 5 or 17.2%). Most "other parents" passed away before the caregiving process began (*n* = 4 or 80.0%) while one passed away during the caregiving experience.

Of those who were still alive, most participants reported not providing care for the "other parent" (*n* = 18 or 75.0%) while some reported providing care (*n* = 6 or 25.0%). All "other parents" receiving care had the participants live at the "other parents'" residence/home. Half of the "other parents" required caregiving for dementia/Alzheimer's (*n* = 3 or 50.0%), followed by arthritis (*n* = 2 or 33.3%), and other medical conditions (heart disease, immobility, schizophrenia, etc.; *n* = 1 or 16.6%). About half of the participants had been providing care to the "other parent" between one month to two years (*n* = 42 or 48.8%), followed by two to four years (*n* = 25 or 29%), and four years or more (*n* = 19 or 22%). On a weekly basis, most participants provided care to their "other parent" for two to eight hours (*n*

= 4 or 66.6%), followed by nine to 15 hours (*n* = 1 or 16.6%), and one hour or less (*n* = 1 or 16.6%).

The average age of "other parents" was 75 years (range = 55 to 99 years; *SD* = 13.68). Almost half of the "other parents" were women (*n* = 17 or 58.6%) while the other half were men (*n* = 12 or 41.3%). Most "other parents" were heterosexual/straight (*n* = 28 or 93.3%), followed by bisexual (*n* = 1 or 3.3%), and gay/lesbian (*n* = 1 or 3.3%). In term of racial/ethnic identity, "other parents" were Asian/Asian-American (*n* = 8 or 27.5%), White/European-American (*n* = 7 or 24.1%), Black/African-American (*n* = 7 or 24.1%), Latinx (*n* = 6 or 20.6%), and Arab (*n* = 1 or 3.4%). Many "other parents" had some high school experience (*n* = 9 or 31.0%), followed by a(n) bachelor's degree (*n* = 7 or 24.1%), high school diploma (*n* = 7 or 24.1%), and some college experience (*n* = 6 or 20.6%).

Non-Participant Sibling(s)

Finally, the participants reported demographic information on their siblings. Many participants reported having three siblings (*n* = 12 or 40.0%), followed by one sibling (*n* = 8 or 26.6%), two siblings (*n* = 6 or 20.0%), and four or more siblings (*n* = 4 or 13.3%). The average age of siblings was 52 years (range = 12 to 90 years; *SD* = 14.79). Most siblings were women (*n* = 50), followed by men (*n* = 30), transgender (*n* = 1), and non-binary (*n* = 1). On average, siblings lived almost one hour away from their ill parents' home in driving distance/time.

Procedures

Before data collection, the PI thoroughly trained seven undergraduate RAs for six weeks. The team members met in-person or via Zoom once a week for two hours. Before training sessions, the RAs were assigned readings, which helped sensitize them to the extant literature concerning CC and caregiving. During training sessions, RAs learned about interview protocols and research ethics, conducted mock interviews with one another, and shared constructive criticism on areas the research team may collectively improve (i.e., building rapport with participants, being more conversational, probing with follow-up questions, rephrasing participant disclosures, etc.). In addition, volunteer guests/interviewees (i.e., people from the PI's social network who were current or past caregivers) were brought to the mock interview training sessions, allowing the RAs to gain experience interviewing unfamiliar people to help prepare them for real-world interviews. Once the PI felt that the RAs were thoroughly trained, the interviews were initiated.

Interviews were conducted from mid-September (2023) until February (2024). The current author conducted 17 (or 57%) of the 30 interviews. The average time for interviews was seventy minutes (range = 32 to 93 minutes). All participants completed the demographic portion of the online survey from study one, which included details about the study, consent related information, and demographic questions (for full questionnaire, see Appendix A). All but four participants consented to being audio/video recorded for interview transcription purposes.

Measures

Financial hardship was measured using a modified version of the *InCharge Financial Distress/Financial Well-Being Scale* (Prawitz et al., 2006). Five items from the original eight were used to assess adult caregivers' perceptions of financial hardship with different five-point scoring indicators: (1) "What do you feel is the level of your financial stress?" (1 = *No stress at all* to 5 = *overwhelming stress*), (2) "How do you feel about your current financial situation?" (1 = *Feel comfortable* to 5 = *Feel overwhelmed*), (3) "How often do you worry about being able to meet normal monthly living expenses?” (1 = *Never worry* to 5 = *Always worry*), (4) “How confident are you that you could find the money to pay for a financial emergency that costs about $1,000?” (1 = *High confidence* to 5 = *No confidence*), and (5) “How stressed do you feel about your personal finances in general?” (1 = *No stress at all* to 5 = *Overwhelming stress*). All items were averaged, where greater numbers indicate more perceived financial hardship. The scale achieved a very good reliability (*M* = 3.94, *SD* = 1.09, *omega* = .88).

To better understand how family history shapes CC with siblings amid caregiving for a parent with an illness, the present study used in-depth interviews with a semi-structured schedule of questions, which allowed probing flexibility (see Appendix D for full schedule of questions). The schedule of questions were structured in the following order: (1) *study summary* (where the interviewer provided a summary of the study, re-introduced participants to their research rights, and re-consented them for participation), (2) *building rapport* (where interviewers asked broad questions about participants and their family as a whole to build trust and comfort), (3) *family history* (where interviewers asked questions about relationships held with parent(s) and sibling(s) during childhood), (4) *parental favoritism in childhood*, (5) *effects of favoritism on CC*, (6) *unresolved hurt feelings from childhood*, (7) *effects of unresolved hurt feelings on CC*, and (8) *additional insights* (where interviewers asked the participants if there was anything else they felt the research team should know about how family history shapes CC, including the role of family resources). The interviewers probed throughout the interviews.

Analytic Strategy for Qualitative Data

All interviews were initially transcribed using the speech-to-text transcription function on Zoom before RAs (all from the original team of seven) manually assessed each transcript for accuracy. The transcription accuracy process entailed two steps. First, the PI assigned one RA to perform an accuracy check for each interview by re-watching the video-recorded interview, closely reading the transcript for accuracy, and making corrections to text. In addition, the RAs also provided contextual details (i.e., non-verbal cues, emotional responses, etc.) and substituted participants' names with desired pseudonyms. Second, the PI then assigned that same transcript (that was already checked for accuracy) to a different RA to redo the same process to ensure optimal accuracy between interview videos and transcribed data. For the participants who did not consent to being recorded (*n* = 4), the interviewers' notes were used as transcripts.

Iterative Phronetic Approach Using Grounded Theory Techniques

Using the iterative phronetic approach (Tracy, 2018) and grounded theory techniques (Corbin & Strauss, 1990), the PI and one RA from the original research team analyzed all interview transcripts. The two coders met once or twice weekly over the course of approximately two quarters (or 18 weeks) to identify emergent themes, address dissension related to themes, and refine themes accordingly as needed. Following the recommendations of Tracy (2018) and Corbin and Strauss (1990), data analysis proceeded in three phases.

In phase one, or *open coding* (Corbin & Strauss, 1990), the two coders read through 33% (*n* = 10) of the transcripts to gain familiarity with the participants' family histories as situated in the caregiving context before identifying codes. After reading through all transcripts, the coding team met initially to share their understanding of each participant's narrative, specifically the "first-level" codes within the data (i.e., the who, what, when, where; Tracy, 2018, p. 66). As outlined by Tracy (2018), codes during this phase were primarily descriptive. Over the next two weeks, the coders then re-read the transcripts, but this time with a focus on "fracturing," or identifying multiple codes within each paragraph rather than labeling each paragraph as one large code (Tracy, 2018, p. 65). In specific, coders looked for instances that captured hallmarks or indicators of CC (e.g., "We took turns spending the night" or "We decided to try everything in our power to support him"). The two coders met to discuss their initial codes and generated a coding "start-list" (Tracy, 2018, p. 66) composed of all codes identified in open coding. The coders then re-visited existing literature concerning parental favoritism, unresolved hurt, CC, and caregiving before starting the next phase, which involves being theoretically sensitized (Tracy, 2018).

In phase two, or *axial coding* (Corbin & Strauss, 1990), the coders moved from descriptive coding to "hierarchical coding," or the process by which researchers interpret, organize, and synthesize previous codes and look at the theoretical properties that cross them (Tracy, 2018, p. 67). The grouping of "first-level" codes from the previous phase captures "themes" within the data (Corbin & Strauss, 1990; Tracy, 2018, p. 66). The coders relied on a constant comparative method (Corbin & Strauss, 1990), or sense-making and accuracy-checking by going back and forth between theory, analyzed data, and research questions, and comparing one theme (and their codes) to another. As the coders grouped first-level codes into themes, they transformed their coding "start-list" into an official codebook with themes identifying relationships between codes. Over the next three weeks, the coders discussed identified themes, addressed thematic discrepancies until consensus was reached, and solidified a final codebook representative of participants' caregiving lived experiences as shaped by their family history.

In phase three, or *selective coding* (Corbin & Strauss, 1990), the coders collapsed themes from phase two to identify larger umbrella themes. The coders used their refined codebook to deductively analyze the remaining 66% of interviews (*n* = 20). Although some emergent, irrelevant themes were intriguing (i.e., adult caregivers' lack of forgiveness toward their ill parent for practicing childhood favoritism), the coders continued using constant comparison to ensure that only themes useful to answer the research questions were gathered (Tracy, 2018). The coders met to discuss and finalize themes capturing the role of family history in shaping CC in response to caregiving.

Data Trustworthiness

Several steps were taken to ensure the validity of the data. First, the coders continued to analyze data until satisfying theoretical saturation (Glaser & Strauss, 1967), or coding until new information becomes "unsurprising" or adds "little value" to the existing themes (Tracy, 2018, p. 72). Second, in moments of interpretative dispute, the RA and current author (re)discussed their points of view until mutual understanding and agreement were achieved. This was a crucial step because co-construction of meaning is necessary in qualitative work as "there are multiple truths in an interpretative framework" (Gupton, 2017, p. 198). Third, the coders also used member checking (Lincoln & Guba, 1985), whereby roughly 25% of participants (*n* = 7), whose quotations were used to represent emergent themes, indicated their (dis)agreement with the final interpretations of themes. No disagreements were reported.

Chapter 5. Study Two Findings and Discussion

Derived by employing the iterative phronetic approach to data analysis infused with grounded theory techniques, this chapter presents the qualitative results of study two, specifically answering the two research questions. Then, the chapter engages a discussion of theoretical and practical implications of the findings, before identifying some limitations and proposing future research directions.

Preliminary Findings

In this sample (*N* = 30), a little more than half of the participants felt favored in childhood (*n* = 18) by their parent, or the primary care-recipient, over their siblings. Relatedly, some reasons/examples of childhood parental favoritism included: (1) receiving more/better gifts (e.g., golden necklaces, extra food, money), (2) quality time (e.g., one-on-one hangouts, taken out of school early), (3) disciplinary leniency (e.g., no/less scolding, no/less negative reinforcement), (4) verbal, positive differential treatment (e.g., "You are my favorite" or "You are the smartest one"), and (5) physical, positive differential treatment (e.g., more holding, more hugging, more kissing). Most participants expressed having unresolved hurt feelings (*n* = 24) toward their siblings from childhood. Relatedly, some reasons/examples of unresolved hurt feelings included: (1) dating a sibling's ex-partner, (2) verbally attacking sibling for teen pregnancy, (3) critically judging a sibling's individual abilities, (4) consistently comparing a sibling's life outcomes, and (5) bullying/socially isolating a sibling. The majority of participants shared a sense of felt obligation (*n* = 27) to provide care to their ill parent.

Qualitative Findings

Based on the accounts of adult caregivers' lived experiences, the overall findings capture the complex and processual nature of adult caregivers' CC (dis)engagement with siblings to provide care for an ill parent as shaped by their family history. The first research question asked: To what extent do adult caregivers, who have unfavorable family histories composed of favoritism and unresolved hurt, still engage in CC with siblings to provide care to their parent with a medical ailment? If they do engage in CC with their siblings, why do they do so? The findings suggest that many adult caregivers engaged CC with their siblings, despite negative family histories with one or more siblings, to provide care for their ill parent because they felt obligated to take care of their parent. Other participants indicated that rather than engage in CC with their siblings, they sometimes became the sole caregiver because they perceived providing care to their ill parent as the "right thing" to do when siblings neglected their caregiving duties. In addition, despite their commitment to work with siblings to provide care at the onset of the caregiving experience, some adult caregivers mentioned disengaging themselves or dealing with their siblings' disengagement from CC because their negative family history prevented them from remaining committed to such communal responsibilities.

The second research question asked: In what ways, if at all, do (a) parental favoritism in childhood, (b) unresolved childhood hurt toward siblings, and (c) family resources at the onset of caregiving shape CC engagement with siblings? And, how do these factors, if at all, make CC engagement more or less functional? The findings revealed that parental favoritism and unresolved hurt feelings toward siblings from childhood play important roles when coping communally with siblings to provide care for parents with medical conditions. Specifically, adult caregivers' lived experiences suggest that (1) childhood parental favoritism may shape CC with siblings via felt obligation, (2) unresolved hurt feelings toward siblings from childhood may impede CC via heightened conflict and arguments, and (3) family resources may promote and impede CC with siblings to shape caregiver burden and sibling resentment, often contingent on the quality of relationships. In addition, some adult caregivers' suggested that CC with siblings can become dysfunctional or ineffective at different periods throughout the caregiving experience, often shaped by pre-existing childhood hurt feelings between siblings that fueled conflicted and generated arguments, leading to neglecting caregiving responsibilities and preventing healthcare for ill parents.

To capture this complex and dynamic CC process as shaped by adult caregivers' family history, the results are presented in two ways. First, for each theme, multiple quotations from various participants are provided to capture the diverse experiences of adult caregivers as related to that theme. Second, one or two holistic narratives of adult caregivers' experiences capturing each theme are provided. Here, a holistic narrative refers to a longer story that captures an adult caregiver's CC experience with their family, showcasing processual changes in CC at different periods of caregiving. Reporting findings in this manner is advantageous because doing so showcases similarity across multiple adult caregivers' experiences and representatively highlights holistic narratives capturing the processual nature of CC and how, at different periods of caregiving, CC can become more or less functional.

Throughout the interviews, participants reflected on their experiences from the onset of caregiving to the time of the interview (range = 6 months to 15 years of care coordination). As stated by Afifi et al. (2020), CC is not fixed, but rather a process that may evolve over time while navigating stressors. Most participants initially disclosed that their siblings were in the coping process together and actively wanted to take responsibility for it as a collective at the start of caregiving, which alludes to CC enactment at the onset of caregiving or at the point at which the siblings realized they need to coordinate care in some way for their parent. However, most adult caregivers indicated that CC engagement with siblings throughout the caregiving experience was dynamic, subject to change at different periods of the caregiving process, and shaped by past experiences with favoritism, unresolved hurt, felt obligation, and family resources. Many adult caregivers mentioned engaging in CC with siblings at the beginning of caregiving, but disengaging from CC or not engaging in it at different stages of providing care. Therefore, holistic narratives reported below include moments in which participants describe both CC engagement and disengagement with siblings. Participants' apparent cycling through periods of engagement and disengagement of CC with siblings is reflective of theoretical conceptualizations of CC as a dynamic process (Afifi et al., 2020).

Parental Favoritism Shapes CC Via Felt Obligation

In situations where participants were favored, as well as those where they were disfavored, many still engaged in CC with their siblings. In both situations, the consistent theme regarding CC engagement was obligation to the parent. In short, there was a strong belief that caring for the parent was the "right thing" to do for the caregiving situation. As will be reflected in the following narratives involving favored and disfavored participants, familial obligation was an overriding motivation promoting CC enactment with siblings (despite the very real challenges promulgated by childhood favoritism in families).

Feeling Favored and Enactment of CC via Felt Obligation

Favoritism from childhood remained salient in adulthood for many participants. Providing care for over three years with her brothers to her mother, who requires dialysis for chronic heart issues, Britney (Asian woman, 32 years old) recalled, “I got stuff before [my siblings] did because I was just doing better [than them] in school.” “My dad used to let me stay up later than the other boys [referring to her brothers]. They had to go to sleep early,” said Michelle (Latinx woman, 53 years old), who was coordinating care for over 10 years with her two brothers for her father, who had heart issues and undergone triple bypass surgery. Collaborating with her sister for over 15 years to provide care for her mother with dementia, Becky (Latinx woman, 58 years old) disclosed, “[My mom] always said that she loves me more than [my siblings].” Working with two sisters over two years to provide care for his mother with cancer, Jose (Latinx man, 35 years old) stated, “My mom always served me food first before my siblings. Even now [in adulthood], she does the same. It’s so obvious [referring to favoritism].”

Being favored by their parent in childhood had negative implications for many participants and their siblings. Jose shared, “We argued a lot growing up [and] my sister would bring up the fact that my mom liked me more.” Feeling similarly, Britney said, “I think that she didn’t mean it [referring to her mother’s favoritism], but it kind of hurts a lot to know that it made [my brother and I] fight.” Another favored participant, who was coordinating care for over a year with her sister for her father with cancer, Jessica (Latinx woman, 40 years old) revealed, “It got to a point where she [referring to her sister] didn’t want to be in the same room with me if my dad was [in] there.” These accounts seem to suggest that being favored in childhood created problems in adult caregivers’ sibling relationships that took the form of heightened arguments and avoidance tactics, creating relational distance between those involved.

Despite being favored by their parent, several of these participants seemingly enacted CC with their siblings at the start of caregiving. When her father initially became ill, Michelle said, “We [she and her siblings] figured out a plan together to take care of him.” Michelle and her siblings engaged in CC, deciding she would “run errands…clean and cook on the weekends” while her brothers would “fill in during the week,” which included tasks like “driving him to the hospital.” Upon learning about his mother’s cancer diagnosis, Jose and his siblings “decided together” that he would “handle household responsibilities” because he lived with his mother, whereas his sisters would help with “taking her to the hospital [and] shopping for food.” When her father was diagnosed with cancer, Jessica said, “We [she and her sister] talked about coming up with a sustainable plan to support our father.” Her sister would “visit at home…and talk to [him] and also do some cleaning” while Jessica “took care of all the medicals [i.e., scheduling appointments and picking up medication]” and “drove him [to], and picked him up from, the hospital.” These stories suggest that favored adult caregivers, despite the negative consequences of differential treatment on siblings’ relational quality, coped communally with siblings to care for their parent.

Numerous participants mentioned feeling an obligation to provide care to their parent as the reason behind coping with their disfavored siblings. Michelle stated, “I will say my brothers are wild [referring to some relational challenges from childhood], but when it comes to family, I will be there for my parents, no matter what.” She further disclosed, “My brothers [have], even more than myself, a sense of taking care of our parents. This is our priority.” Others felt similarly, like Jessica who shared, “[It is] not easy to be around [my sister] but I had to do this for my father because he needs my help and I love him. I don’t want to regret this later if I don’t help out.” Even though “working with [his] sisters was hard,” Jose said, “It’s [his] duty to take care of [his] mother because [they] are family.” He further shared, “Sometimes they [referring to his sisters] just started fighting for no reason at all…[but] all I know is that I’ll live in peace knowing I did my part for my mom.” Despite the strain and distance favoritism had on sibling relationships, favored adult caregivers still seemingly chose to engage in CC with their siblings out of a felt obligation to their ill parent. They also felt like they would regret, later in life, if they did not care for their ill parent. In turn, these narratives suggest that adult caregivers perceive benefits in CC enactment with siblings via felt obligation, including preventing future regret and finding imminent serenity.

Holistic Narratives Linking Favoritism, CC, and Felt Obligation

In addition to the quotations above that capture the theme associating being favored in childhood, enacting CC with siblings, and feeling caregiving obligation to the ill parent, two holistic narratives are provided below to showcase the processual nature of CC engagement with siblings via felt obligation, despite the negative relational consequences of being favored in childhood. Collaborating with her siblings, Becky provided care for her mother with dementia. Her mother was technically her biological grandmother, who took maternal responsibility when Becky’s biological mother passed away during her childhood. Becky and her siblings (i.e., one sister and multiple brothers) provided care to their mother (or Becky’s grandmother, but referred to as “mother” onward) for 15 years. When her mother was first diagnosed with dementia, Becky’s sister suggested to “put [her mother] in a senior [living] home,” but Becky decided to move her mother into her own home. When describing the roles of each of her siblings at the onset of caregiving, Becky disclosed, “[My brothers and sister] come and visit once or twice a month, [but my sister] is the one who helps the most…[like] watching after her when I leave." She further disclosed that the brothers were uninvolved for most of the caregiving experience.

Becky mentioned being favored in childhood by her mother. When asked why she believed she was favored, Becky said, "It started because my sister [the grandmother's biological daughter] wanted a golden necklace, [but] my mother bought me one, [but] didn't get one for [my sister] and that triggered [my sister]." Since then, favoritism seemingly played a role in shaping some tension in their sibling relationship. During an argument in childhood, when she was 15 years old, Becky disclosed that her sister said, "I'm the daughter, but [my mom keeps] getting more things for you, but you're just the granddaughter." This comment generated tension between the siblings because Becky felt her sister attacked her for not being a "real daughter," making Becky feel "mad and upset." Later in the interview, when asked why she still worked with her sister to provide care, despite relational strain generated from childhood favoritism, Becky shared, "[My mother took] care of me when I was a baby, and she [had] a lot of things to do, but decided to take care of me. So, now that she's old and she needs my help, I'm gonna [take care of her] regardless." Here, Becky used "regardless" to describe her CC engagement with her sister out of a felt obligation to her mother.

After her mother passed away, Becky reflected on how coordinating care with her siblings shaped her feelings and worldview. Becky felt "very grateful to her [mother] for taking care of [her] when [she] was little," which is what sparked her feelings of caregiving obligation and indebtedness for parental support and sacrifice. After providing care out of that felt obligation, Becky disclosed, "I'm happy [because] people said, 'You took really good care of [your mother]' I know she died happily." When her siblings were crying at their mother’s funeral, Becky recalled, “I felt like telling them to ‘get away from here’ [because] they could’ve come and helped more.” In reflecting on her worldview after the caregiving experience, Becky said, “Don't hold grudges [or else] you won't be able to take care of her. I didn't think of the bad things…[but] only happy moments…and the good things parents do for us.” Through her caregiving experience, which included moments of CC engagement with siblings via a felt obligation to her mother, Becky felt happy about her efforts and seemed to resent some of her siblings for their lack of contributions.

Similar to Becky’s holistic caregiving narrative, Mike (Jewish man, 61 years old) also worked with one sister and two brothers to provide care for his mother with “moderately advanced dementia” for three years. Mike’s mother lives at home with his father, who is the primary caregiver, while he and his siblings contribute to the caregiving process, but reside in their own homes. Referring to CC engagement, Mike said, “We came together to divide the work [for our ill mother] based on our skills and circumstances.” In terms of caregiving roles, Mike said he primarily helps “stimulate mental activity” by trying to get his mom to “tell stories of her past” and “do artwork…which [seemingly] made her very creative [according to him].” His sister “does most of the planning for [his] mom” to be moved into a “[senior] living facility,” whereas his out-of-state brother “takes care of medical responsibilities…[like scheduling] appointments and ordering medicine.” The siblings manage their mother’s caregiving needs by sharing their resources to provide care, constituting CC engagement.

Mike recalled being favored in childhood by his mother because there “was not as much confrontation” with her compared to with his siblings. He recollected receiving “extra slices of cake” and getting “taken out of elementary school [earlier] to spend a fun day with” his mother. Favoritism generated some emotional distance with his siblings, as Mike “did not communicate often [with them] in childhood." Even at different periods of the caregiving process, Mike shared, "[My mother told me] that I was her favorite a few times [and] she enjoyed seeing me the most. When I come to visit, she would respond in the most positive way to me." Despite both he and his sister living 50 miles away from their mother, Mike shared, "My sister will come once a week versus my three times a week." Being favored in childhood seemingly shaped Mike's experience of maternal favoritism amid care coordination with siblings.

When asked why he worked with his siblings to provide care to his ill mother, despite the emotional distance with his siblings shaped by childhood favoritism, Mike noted, "I've come to [the caregiving situation] wanting to be there for my mother because I've always felt close to her. So, my duty is to my mother, and I just want to be there for her." Here, Mike describes how his feelings of parental care obligation allow him to still engage in CC with his siblings, despite his somewhat strained sibling relationship as shaped by childhood favoritism. At the end of the interview, while reflecting on his caregiving experience with siblings, Mike concluded, "I didn't really expect these challenges [linked to favoritism and care coordination with siblings] as a younger person but [they are] here now and you just have to deal with it." While the division of caregiving labor may not have been equal across his siblings, possibly due to childhood favoritism, Mike was able to still enact CC with them via felt obligation to his ill mother.

The caregiving experiences of these participants suggest that favored adult caregivers, with strained sibling relationships shaped by childhood favoritism, still engage in CC with siblings out of a felt obligation to provide care for their ill parent. Despite heightened conflict and distance shaped by childhood favoritism within sibling relationships, these narratives capture how adult caregivers' felt obligation allowed them to coordinate care and divide caregiving responsibilities among siblings when caregiving commenced. After engaging in CC with their siblings through a felt obligation toward their parent, some favored adult caregivers seemed to feel happy, peaceful, and unregretful. They also underscored the importance of not holding grudges amid providing care. By contrast, other favored adult caregivers seemed to resent siblings for their lack of caregiving contributions and, by extension, had become more aware of how favoritism might have negatively impacted the CC process with their siblings.

CC Engagement Perceived as "Right" Thing to Do Despite Feeling Disfavored

On the opposite end of the spectrum, many participants shared stories of engaging in CC with their siblings due to felt obligation despite feeling disfavored by their parent in childhood. Working with her older sister for roughly two years to provide care for her mother with dementia, Priya (Asian woman, 38 years old) said, "My sister has been the favorite, definitely! My mom had a bad relationship with my father…[and] confided in my [older] sister a lot…that's why…She [the sister] got all the hugs and kisses." Caregiving with two sisters for seven years for his father with arthritis and mobility issues, Roman (White man, 56 years old) disclosed, "My father had favoritism towards his younger daughter, [who] is my half-sister. She was younger, more vulnerable [and] got more attention than me." "I openly know that I was not the favorite. [My mom] would take my younger sister out shopping and buy her clothes and nothing for me, but the reverse would never happen [with me]," confessed Linda (Asian woman, 56 years old), who provided care for six months with the help of her two brothers and sister for her mother who had glioblastoma (i.e., stage four brain cancer).

Many of these participants said that being disfavored had consequences for their sibling relationships during childhood and, for some, in adulthood. Roman said, “[Being disfavored] probably affected me, as I wasn't able to really have a direct relationship with [my sister] because [my father] was kind of shielding her.” Feeling similarly, Linda confessed, “I would say most definitely [disfavoritism] affected us [referring to herself and her sister]. We didn’t talk to each other for a long time because of [my mother’s favoritism toward my sister], probably until I had kids.” “I didn't realize this until later in life, but I envied her [the older sister] a lot [because] of how close she was with my mother. We probably argued so much because of it,” said Priya. She further revealed that “not much has changed now as adults.” These accounts suggest that being disfavored in childhood may hinder sibling communication, for varying degrees of time and severity depending upon the situation, and shape feelings of envy toward favored siblings.

Despite being disfavored, many adult caregivers still seemingly engaged in CC with their favored siblings to coordinate care for their ill parent. When her mother was first diagnosed with dementia, Priya said, “We [she and her sister] came up with a plan” in which they decided that she would “help mom around the house, [including] bathing her and keeping things clean” while her sister would manage “all the financials.” Her mother’s brain cancer diagnosis prompted Linda and her siblings to collectively arrange caregiving responsibilities, especially because “it was stage four glioblastoma.” Linda disclosed, “We took turns spending the night at [my mom’s] house and then making meals, taking her to appointments. I think each of us had skills in different areas.” She further revealed that her and her sister were “really the ones [who] would help [the mother] with going to the bathroom or in changing her diaper” and her brothers managed “insurance and finances.”

Because he lived out-of-state, Roman primarily took on financial responsibility by “giving [his family] monthly money” while his sisters “would visit him [the father], and take more care of him physically.”

Despite the consequences of being disfavored in childhood on sibling relationships, several participants narrated working with their favored siblings because they felt doing so was the “right thing” to do, indicating felt obligation to their ill parent. Linda said, “I just let bygones be bygones and set aside [our] differences, and really [came] together [with my siblings] for the sake of taking care of [our] parent. You have to make that decision.” She went on to say, “I don't [want to] look back and say, ‘I really should've not held a grudge.’ So going into it with my siblings, [I was] telling myself this is the right thing to do, even though [I] know I was given the least in my life.” When asked why she worked with her sibling to provide care to her mother, Priya said, “We [referring to her older sister] are not close, but my mother needs our help [and] it’s the right thing to do. As hard as it was going through that with my sister, I think I would regret not helping.” These narratives suggest that, despite the relational strain disfavoritism had on their sibling relationships, many disfavored adult caregivers enacted CC with their favored siblings because they perceived this collaboration to support their ill parent as the “right thing” to do. Had they not engaged in CC with the favored siblings amid caregiving, disfavored adult caregivers feel they would later “regret” disengagement from CC.

Holistic Narratives Linking Disfavoritism, CC, and Felt Obligation

Two holistic narratives are provided below to capture the processual nature of disfavored adult caregivers enacting CC with their favored siblings by perceiving CC as the “right thing” to do. Ashley (Latinx woman, 31 years old) provided care for her father, who had stage four cancer, with her sisters for approximately six months. When talking about the collective caregiving roles to support her ill father, Ashley revealed, “I did pretty much everything from emotional helping, like talking to him every day, along with food prep, and administering his medicine.” She continued, “My oldest sister was definitely with me in trying to figure out care,” but mentioned that her younger sister “was not very involved” at the start of caregiving. CC engagement initially appeared to be only between Ashley and her older sister. At a later stage of the caregiving process, however, Ashley indicated that her younger sister engaged in CC with her, especially when the negative effects of medical ailment on the ill father intensified.

Ashley reflected on being disfavored in both childhood and adulthood by her father. She disclosed that her father was closer to her younger sister because he perceived her as “more happy-go-lucky majority of the time,” but viewed Ashley as “the mad one, always going through something emotional or whatever.” Further highlighting disfavoritism toward Ashley, her father listed her younger sister as the sole beneficiary of all his wealth and properties in his will. Being disfavored generated issues between Ashley and her younger sister in childhood, which also bled into adulthood. When asked how childhood disfavoritism affected her sibling relationship, Ashley revealed, “It split us apart. I definitely felt like an injustice was happening. Yeah, hurt and jealousy is pretty much what sums [my feelings] up.” Ashley felt that her father’s favoritism toward her younger sister created a “permanent strain” on their sibling relationship, reducing relational closeness between the two.

Three months after the cancer diagnosis, however, Ashley revealed that her family observed treatment ineffectiveness, decided to “stop chemotherapy,” and “transitioned into hospice and switched gears.” “Even though [they were] currently not on speaking terms,” Ashley shared that she and her younger sister “sat down” and “decided to try everything in [their] power to support him together.” Here, Ashley’s younger sister, who initially was uninvolved in caregiving at the onset, engaged in CC to manage caregiving responsibilities for their ill father, which is indicative of the processual nature of CC. When asked why she worked with her sister, despite having a strained relationship due to paternal disfavoritism, Ashley confessed, “When it comes to serious situations [like her father’s transition to end-of-life after terminating chemotherapy], I just have that nature in me to want to take care of my loved ones. The right thing is to take care of my father because he is sick.” Here, Ashley’s perception of what is the “right thing” to do seemingly shaped her willingness to engage in CC with her younger sister, despite the pre-existing relational distance and issues shaped by childhood disfavoritism.

At the end of the interview, while reflecting on her caregiving experience with her younger sister for her now deceased dad, Ashley engaged in a sensemaking process that unveiled her negative emotions. Shortly after her father’s passing, Ashley said that her “resentfulness came out” toward her younger sister because “[Ashley was] sacrificing [her] whole life to support [her father] and [she] can see that [her sister’s] selfishness got in front of everything [she] did.” Regardless of these issues, Ashley indicated her felt obligation, “I’m going to be there [for my father] no matter who I’m fighting with.” In retrospect, Ashley said, “I was so stressed and not happy.” Ashley engaging in CC with her younger sibling to support her father, despite his disfavoritism straining their sibling relationship, seemed to produce resentment toward her sister, generate stress for herself, and develop unhappiness about the caregiving experience.

Experiencing similar negative effects of childhood disfavoritism, Richie (Asian man, 34 years old) provided care with his three siblings for his father with cancer for approximately four years. When describing care coordination efforts among his siblings at the onset of caregiving, Richie said, "We decided to share the workload [of caregiving], but that was hard in the beginning because some of my siblings lived out-of-town." He continued, "I lived with my parents, so I ran errands, picked up medication, [and] did a lot of cleaning." "My brother and oldest sister lived out-of-town, so they [helped by sending] money for bills and groceries, and [visiting] monthly to help out [and] my younger sister [who lived in town] helped sometimes, but she was really not that reliable," said Richie. He further revealed how the initial caregiving responsibilities "changed [over time] as the cancer got worse," where his out-of-town siblings "came by weekly" and his younger sister "almost stopped helping [the family] completely." For Richie's family, these changes over time capture the dynamic process of engaging in, and disengaging from, CC among siblings throughout the caregiving experience.

Appearing saddened by his self-disclosure, Richie mentioned being disfavored by his father during childhood. Richie said his father "never attended any of [his] extracurricular events to support [him]" or even "expressed any kind of proudness of [his] accomplishments," but his father was "really close to [his] sisters." He further disclosed, "Witnessing my father be so close to my sisters without [him] really getting to know me, or even trying to at least, made me feel isolated with my siblings. My sisters became a team, and I was never given a membership." When asked to explain why he collaborated with his sisters despite being disfavored by his father, Richie testified:

> Even though I was basically a stranger [to my dad] because he really didn’t ever try to get to know me as a person, helping him in his dying days felt like the right thing to do. Even if that meant I worked with my sisters [who] I wasn’t close with. Sometimes, you have to push [your] feelings aside, swallow your pride, and do what is right for the moment. That is exactly what I had to do for my father.

When asked to describe how he felt after caregiving with sisters he was not emotionally close to due to childhood disfavoritism, Richie disclosed, “I feel like I’m doing the right thing [referring to working with siblings to provide care] to help my family [because my] dad is dying and needs my help.” He further revealed that he feels “good to be helping [his] dad in his dying days, [but also feels] invisible since [his] younger sister doesn’t notice or appreciate [his] contributions.” Richie also shared, “I feel an emptiness within because my dad doesn’t know who I am,” yet he continued providing care. Despite the negative impacts of childhood disfavoritism and parental neglect had on his relationships with his siblings and father, Richie seemingly enacted CC with his favored siblings because he perceived communally coping with them to support his ill father as the “right thing” to do, which is indicative of felt obligation.

Ultimately, numerous disfavored participants felt that providing care with their favored siblings to their ill parent was the “right thing” to do because they were sensitive to parental suffering evoked by medical ailments. Although disfavored adult caregivers mentioned having strained and isolated sibling relationships due to childhood disfavoritism, perceptions of doing the “right thing” to help their ill parent allowed some level of CC engagement with siblings. Sometimes CC could only be enacted with one or two siblings but not all, whereas other times CC ebbed and flowed with siblings depending upon one’s feelings and the urgency of the illness, and sometimes siblings removed themselves from the caregiving experience, making CC with the family network impossible. But feelings of obligation toward the parent (i.e., “right thing” to do) allowed for greater potential for CC to occur, despite a family history of parental disfavoritism toward adult caregivers. At the end, some disfavored adult caregivers left the experience feeling a lack of regret and an overall sense of peace with the process, but others left feeling heightened levels of stress and unhappiness, and unappreciated by siblings.

Unresolved Hurt Fuels Conflict, Impeding CC

The findings also revealed that having unresolved hurt feelings toward siblings from childhood seemingly corresponded with more conflict and arguments, impeding CC. Similar to the first theme, unresolved hurt feelings between siblings generated two types of experiences in the caregiving process. First, some participants had unresolved hurt feelings toward their siblings and still engaged in CC, but their siblings disrupted CC by neglecting their caregiving responsibilities. Second, other participants, who had unresolved hurt toward siblings, withdrew from their own caregiving duties, impeding CC. Both actions not only impeded CC, but made it extremely difficult and often impossible to engage in CC as an entire family. CC was much more difficult to enact, sustain, and more likely to fluctuate over time when siblings had unresolved feelings of hurt stemming from childhood. Although to a lesser degree, CC engagement at times became dysfunctional via heightened conflict and increased arguments shaped by unresolved childhood hurt, creating stress for sibling caregivers involved and preventing healthcare for the ill parent. In similar fashion to the first theme, quotations from various participants and two holistic participant narratives are provided below to capture each theme tied to participants, themselves, impeding CC, as well as their siblings neglecting caregiving responsibilities.

Unresolved Hurt Feelings Impede CC Due to Sibling Neglect

Several participants attempted to engage in CC with siblings, but unresolved hurt feelings from childhood led sibling caregivers to impede the coping process by neglecting their caregiving responsibilities. This reflects the important idea that CC necessitates commitment from multiple parties, which was well captured by the experiences of Julia (Latinx woman, 33 years old). Taking care of her father who had dementia with the help of her sister for roughly four years, Julia said, “I am still hurt because [my sister] always competed with me ever since I can remember. Always comparing me to her accomplishments [and] my mother would just allow this to happen.” Julia further revealed that she once voiced her concern about her sister’s ongoing mistreatment, leading to a “huge fight in childhood” between them. Working with his sisters and brother for a year and a half to provide care for his mother who had mobility issues, Mason (Black man, 54 years old) also shared his relational challenges stemming from unresolved hurt. The source of Mason’s unresolved hurt was that his “brother bullied [him] a lot when they were younger,” often taking the form of “making fun of [him and] physically hitting [him].” Referring to her unresolved hurt feelings toward her younger sister from childhood, Cynthia (Latinx woman, 37 years old) disclosed, “We were arguing once, and she [verbally] attacked me for getting pregnant [at] 16. I felt hurt, shame, [and] will never forgive her.” Cynthia and her younger sister coordinated care for three years for their mother who had dementia. These disclosures capture how childhood experiences with their siblings shaped adult caregivers’ enduring feelings of hurt, which appeared to harm their perceptions of sibling relationships.

Regardless of these unresolved hurt feelings from childhood, numerous participants said they worked with their siblings at the onset of caregiving. Because they both lived with their ill mother, Cynthia and her sister “agreed to divide the [caregiving] responsibilities evenly,” which included “everything from cleaning to bathing her to [taking her to] hospital visits.” When their father was first diagnosed with dementia, Julia and her sister initially “coordinated care together” in which they “took over medical” and “housekeeping” tasks. She also provided “rides to the hospital [and] bought whatever was needed for [her] father [and] cleaned the house” while her sister “helped keep the home clean [and] look after him.” Due to his mother’s mobility issues, Mason said, “We [he and his siblings] decided to share the [caregiving] responsibilities,” such as “helping her use the bathroom [and] move around the house.” He also revealed that he and his brother were responsible for taking care of the medical and financial responsibilities, including “[taking her to] hospital visitations and paying rent and bills.”

When asked how their unresolved hurt feelings affected their ability to collaborate with their siblings in response to caregiving, many adult caregivers felt that these enduring feelings of childhood hurt impeded CC engagement with siblings later in the caregiving process. Mason reflected, “We were supposed to help each other [referring to his brother’s initial caregiving commitments], but he honestly didn't help much.” He further said, “[My brother] gave me passive aggression when I asked him to help me change [our immobile mother]. I’m thinking, ‘What is he mad about?’ I’m the one who was bullied by him.” Having a similar experience, Julia said that her sister “would argue with [her] when she [asked] her [sister] to keep the house clean,” highlighting her sister’s neglect of fulfilling her original commitment to caregiving roles. Her sister once responded, “You can't do anything by yourself…always need someone's help." Julia felt this response was indicative of her sister's "competitive nature from childhood." Although they were supposed to "divide the [caregiving] responsibilities evenly," Cynthia stated that "was not the case" throughout the coping process because her sister "consistently argued with her," preventing CC engagement at times. One time, in front of their ill mother, Cynthia recalled her sister saying, "You wouldn't need [that] much help if you didn't have to look after your kid," referring again to her teen pregnancy. Cynthia "felt re-traumatized" by hearing her sister attack this personally impactful experience from her past. These experiences suggest that unresolved childhood hurt impeded CC engagement with siblings at different periods of caregiving in which siblings neglected their original commitments to caregiving roles.

Holistic Narratives of Unresolved Hurt Impeding CC through Sibling Neglect

Two holistic narratives are provided below to capture the processual nature of this theme linking childhood unresolved hurt with siblings' CC disengagement. For his father who had terminal cancer, Cam (Asian man, 45 years old) managed caregiving responsibilities with his younger brother and older sister for two and a half years. Upon receiving his father's cancer diagnosis, Cam said "We [he and his siblings] had a conversation to figure out who will do what to help out the family." Cam shared that he was primarily "responsible for looking after [his] dad like doing [the] cleaning, bathing, [and] cooking," whereas his sister "helped with giving rides or picking up medication" while his brother would "sometimes visit [his] parents." Although he and his siblings seemingly enacted CC by dividing caregiving responsibilities amongst each other at the onset of care coordination, Cam shared how his sister created issues with this coping arrangement at different times of the caregiving experience.

Cam mentioned how childhood unresolved hurt feelings between him and his sister generated issues with them joining forces while providing care for his ill father. In describing his childhood relationships with siblings, Cam disclosed, “My older sister changed after a break-up she had with her ex-boyfriend [and] that experience made her very cruel as a person…I’ve been a victim of her cruelty.” When asked why he had unresolved hurt toward his older sister, Cam confessed, “Everything was always [a] comparison with her. She compared me to herself all the time, saying things like ‘I’m more religious and better than you’ or ‘You will never live up to [being] a man.’” Cam further testified, “She was always unfair with me, even when things were out of my control, she would blame me. So, I’m still hurt by her and try to [keep my] distance.” Cam additionally disclosed that he did not have a close relationship with his older sister because they always “fought and argued in childhood [and] even stopped talking for a few years [in adulthood].” Here, unresolved childhood hurt between the siblings damaged their relational bond and increased distance over time, leading to avoidance between the siblings.

When asked how these unresolved hurt feelings shaped collaborating with his sister amid caregiving, Cam revealed, “[My older sister] intentionally started fights with our family out of hatred. One time, she tried talking about the funeral details right in front of our dad [who was still alive, but in hospice at the time]. My younger brother stopped her and said, ‘Let’s talk about this later.’” When asked to explain how this incident affected care coordination with his sister, Cam confessed, “The next day she texted our mom, blaming my brother and me [due to frequent no-contact with her brothers] for ‘embarrassing her last night.’ What is worse [is that] she told my mom to call ‘9-1-1’ if we need any help [providing care to] our father [and] to never contact her even though she said she would help.” Cam additionally shared that “on multiple occasions,” his sister initiated “fights with [him] right in front of [their ill] dad, bringing up past grievances.” Here, the unresolved hurt feelings between Cam and his sister seemingly made CC impossible for the entire family to continuously enact. Even though CC was still able to continue with the remaining sibling, the unresolved feelings of childhood hurt and ensuing conflict with the oldest sibling strained the caregiving system. Interestingly, this oldest sibling also became an outgroup member in the caregiving network, but seemingly by her own choice.

Experiencing similar issues, Ashley (from earlier) felt that her unresolved hurt feelings from childhood toward her younger sister generated conflict and fueled arguments amid caregiving, seemingly impeding CC at different stages of caregiving. It is important to reiterate (from earlier) that, when their father was first diagnosed with cancer, her younger sister did not initially enact CC with Ashley and her oldest sister. Rather, only when their father transitioned into hospice (due to the ineffectiveness of chemotherapy) did the younger sister choose to engage in CC with Ashley. Although descriptions of Ashley from earlier showcase her willingness to engage in CC with siblings (despite being disfavored) out of a felt obligation toward her father, the examples in this section capture how unresolved hurt can impede CC enactment amid caregiving, making the coping process dysfunctional at different stages of care coordination. The changes seen throughout the caregiving process in Ashley’s narrative captures CC as a dynamic process.

A hurtful experience from childhood and its negative enduring effect truly damaged the relationship Ashley held with her younger sister. When asked to share if she had any sources of childhood hurt that were still unresolved, Ashley disclosed, “In middle school, we distanced because my sister dated my ex, [which] made us grow apart. I was like, ‘Hey sister, I feel really uncomfortable with this, do you mind not dating that person?’ She was like, ‘No.’” Reflecting on the consequences of her sister’s disregard, Ashley said, “Honestly, that is one of the main things that I still go back to…I kind of don’t trust her in that way [anymore].” After her sister dated her ex-boyfriend in middle school, Ashley developed unresolved hurt feelings toward her younger sister, creating relational mistrust and straining their sibling relationship. Ultimately, the poor relational quality shaped by unresolved childhood hurt seemed to be highly consequential when Ashley attempted to enact CC with her younger sister to coordinate care for their father.

Later in the interview, Ashley was asked how her unresolved childhood hurt affected collaboration with her younger sister during caregiving, to which she replied: “My sister was so aggressive with me that it caused a fight that wasn’t necessary while we were taking care of our father.” The conflict, which had its roots in unresolved childhood hurt, disrupted the siblings’ abilities to engage in CC during that period of caregiving. Ashley testified, “If I asked for help, [specifically] for things my sister said she would do, I would get met with, ‘I’m so busy, I cannot do that!’” Ashley further said, “Okay, you told me to come to you with this stuff [after our father transitioned into hospice] but now I get met with aggression.” In describing how this interaction fueled an argument between the two siblings, Ashley revealed, “[The argument made] my dad cry because he was scared that I was going to leave because we were fighting.” Here, the siblings clearly engaged in CC, but doing so backfired seemingly due to the unresolved hurt feelings from childhood. Ashley’s experience captures the processual nature of CC, highlighting that CC enactment may fluctuate throughout the caregiving process. Her narrative also shows how CC engagement with siblings amid care coordination may become dysfunctional when they maintain unresolved hurt feelings from childhood because such enduring negative emotions can fuel conflict and amplify the likelihood of arguments, disrupting or impeding CC.

Overall, even though some participants were able to engage in CC with their siblings despite negative family histories of unresolved hurt, other participants suggested that childhood unresolved hurt feelings with their siblings may disrupt CC engagement, making the sustainability of communally coping as a whole family difficult or, at times, impossible. Some siblings who still felt hurt appeared to neglect their original commitments to caregiving responsibilities, willfully casting themselves as out-group members within the family unit. Others were conflicted with their siblings amid the stress of caregiving, impeding and, at times, making dysfunctional the engagement and sustenance of CC as a whole sibling network. For some adult caregivers, the process of engaging in CC with siblings who hurt them in childhood may have been “re-traumatizing,” especially if such traumatic events have not been addressed, unpacked, or resolved by the siblings involved.

Participants’ Neglect of Caregiving Duties Impedes CC with Siblings

Some participants also described withdrawing from their *own* caregiving responsibilities due to maintaining unresolved hurt feelings toward their siblings, which seemingly impeded CC amid caregiving. Caregiving for his father who had “advanced dementia” with his sister for almost two years, James (Latinx man, 31 years old) revealed, “It’s normal in my culture not to talk about your feelings but my sister hurt me because she was…always combative with me.” When asked how his sister hurt him in childhood, James confessed, “Anything I did was never good enough. If I got all A’s and one B in school, she would point out the B to our parents [and] my dad did the same to me,” referring to being overly difficult to please his family members. Having a similar experience with her sister, who helped her provide care for their mother with cancer for two years, Gracia (Latinx woman, 52 years old) disclosed, “I’m still hurt by my sister’s aggression with me. She would yell at the top of her lungs when we had arguments. It made me feel unsafe.” Gracia shared that “physical punishment by hand was a norm growing up,” but said she “will never forget when [her] sister hit [her] with a broom.” She even once “called the cops on her [sister] for the abuse.” These unresolved hurt feelings shaped by childhood experiences seemed to harm their sibling relationships, as adult caregivers felt unsafe, developed deep mistrust, and felt incapable of satisfying their siblings’ high expectations.

Despite having unresolved hurt feelings from childhood, several participants initially engaged in coordinating care for their ill parents with siblings who hurt them. When her mother was diagnosed with cancer, Gracia said, “We came together to help our mom because she needed us badly. She [referring to her mother] sank into depression when we first got the cancer news. It was so hard to see.” To help their mother, the sisters coordinated care as a team in which Gracia would “cook meals, run a little bit of errands, [and] take her to doctor’s appointments,” whereas her sister would help “socially [and] be there for emotional support,” as well as assist with “daily tasks, grocery shopping, and prepping meals for her.” Upon learning about his parent’s dementia condition, James and his sister “both had a conversation about planning [their father’s] day-to-day routine” by “dividing the work to support him.” They collectively decided that James should take over financial responsibilities, such as “bills [and] medical expenses,” as well as assist “with cleaning the house” while his sister should “talk to [their] father and help with routine tasks like doing laundry, cooking, and cleaning.” Although residually hurt participants seemingly enacted CC with siblings at the onset of caregiving, these feelings of unresolved hurt affected their own ability to uphold original commitments to caregiving responsibilities.

Several participants shared how unresolved childhood hurt toward their siblings impeded their *own* ability to work with them and satisfy their *own* commitments to share caregiving responsibilities in distinct moments of caregiving. While preparing dinner for his father with his sister, James testified, “She kept making snarky comments when I tried to help make the food. ‘Don’t do that. This doesn't go here.’” He further indicated that they “got into an argument that night,” prompting James to “leave the house out of anger without finishing [making] dinner.” He added, “She was difficult to impress then [referring to childhood] and even now [in adulthood].” In similar regards, Gracia disclosed that she and her sister had “argued at different times during caregiving” due to the “issues from their past.” Gracia recalled feeling “happy when the doctors took [her] mom off chemo.” She explained, “I stopped going over [to help] just to avoid my sister. I made up lies to not go there but only when [my] mom got better.” When asked how she felt by avoiding her sister via deception, Gracia confessed, “Honestly, [I] felt relieved to not be around my aggressive sister” but later described feeling “a lot of guilt and shame” for neglecting her caregiving commitments to the family. Here, adult caregivers’ unresolved childhood hurt seemingly shaped their discontent being around their siblings, prompting them to neglect their own commitments to original caregiving roles and avoid their siblings when possible, impeding CC.

Holistic Narratives of Participants Impeding CC by Neglecting their Caregiving Duties

While these quotations underscore the theme linking unresolved childhood hurt, CC engagement with siblings, and adult caregivers’ *own* neglect of responsibility, two representative narratives are needed to capture the processual nature of this theme. Martin (Latinx man, 32 years old) mentioned providing care with his older brother and sister to his mother with dementia and diabetes for over two years. Referring to their collaborative efforts, Martin revealed, “We all made an arrangement to take care of [our] mom when she first got sick.” When asked to share the role of each sibling in their collective care coordination arrangement, Martin said that his out-of-state older brother “takes care of all the finances” while his sister, who lives at home with the ill mother, “upkeeps the house for [their] mom [and] informs [the brothers] if things are needed.” Martin shared that he “lives two hours away from [his] mom” and does “occasional visitation to clean and cook [and] also oversee medicine [usage].” Although the siblings seemed to initially engage in CC at the onset of caregiving, there were periods in which Martin’s purposeful actions to neglect his caregiving duties, shaped by the unresolved hurt he maintained toward his sister, disrupted the coping process.

When asked to describe his relationship with his caregiver siblings, Martin noted that he “is not close to [his sister]” but “feels fine with [his] older bro…like comfortable talking to [him].” Later in the interview, Martin revealed that he and his sister are not close because of pre-existing hurt from childhood. When asked to share how his sister hurt him in childhood, Martin confessed, “She just judged everything. She just concluded that I’m not doing anything [in life because] I am not giving my best.” Martin felt that meeting his sister’s expectations was extremely difficult growing up. Even during the caregiving process, Martin disclosed that his sister “said harsh words to [him] couple of times like, ‘You’re not trying enough.’” Martin also narrated “getting into arguments” with his sister throughout the caregiving experience because he “disagreed with her” and felt like “[he] tried [his] best to help out given [his] limited resources.”

Reflecting on how his unresolved childhood hurt affected his willingness to collaborate with his sister amid caregiving, Martin revealed, “I will be honest right now, I missed two visitations. I was supposed to drive mom to the hospital, assist around, and do some supervision, but I didn’t go because I just have [been] avoiding my sister. I can’t stand her.” Here, the unresolved hurt feelings that strained their sibling relationship seemingly shaped Martin’s willful decision to neglect caregiving duties agreed upon by the sibling network when they enacted CC at the onset of caregiving. In purposefully neglecting his caregiving responsibilities, an action that seemed to be shaped by childhood unresolved hurt toward his sister, Martin’s behavior proved to be costly for his ill mother, who was left without transportation to her hospital appointment, preventing essential healthcare required to manage her chronic medical condition.

When asked how he felt toward his sister by withdrawing from his caregiving responsibilities due to unresolved childhood hurt, Martin said, “I know [my sister] has to have a grudge [and] it's not a cool feeling.” Reflecting on the consequences his actions had on other family members involved in the care coordination process, Martin said, “I did lie to my older bro. I told him I had some complications, [and] I wasn't able to go take mom to her hospital appointment, twice.” Martin further disclosed, “I actually felt bad because I knew I wasn't doing the right thing,” and he thought to himself, “Why am I missing the visitation?” Martin ultimately concluded, “I felt some kind of guilt. I didn't do my part because I had arguments with my sis,” referring to his strained relationship from childhood. Here, the unresolved childhood hurt Martin maintained toward his sister seemingly impeded CC engagement, as he purposefully neglected his original caregiving commitments to his family. The disruptions to CC shaped by unresolved childhood hurt also prevented healthcare for the ill parent. Consequently, Martin began ruminating about the potential harms inflicted by his caregiver neglect on his sibling relationships, as well as feeling guilt and growing discontent by neglecting his mom’s needs.

Having a similar experience to Martin, Lisa (Iranian woman, 56 years old) provided care, during two separate periods in her life, with an older brother and sister, who were sixteen and eighteen years older than her, respectively. They provided care together for over 10 years, once for her mother with terminal cancer, and another time for her father who developed mobility issues after an abrupt fall. Narrating the shared roles between she and her sister at the beginning of caregiving, Lisa said, “Our roles were to keep her comfortable, help her move around the home, blend food, cook food she likes, help with bathing, [and] help her go to the bathroom.” Her brother’s responsibilities included “cleaning the home, cooking food [also], and doing dishes.” From Lisa’s perspective, “we [she and her siblings] all helped equally” during the caregiving experience, which suggests CC engagement among siblings. This is imperative to note because Lisa’s older brother also participated in the study, but maintained a different viewpoint while caregiving for their ill father, which will be addressed later.

When asked to share if she had any unresolved hurt from childhood toward her siblings, Lisa shared, “What affected me most in my childhood was when my sister got a divorce and moved [back into my parents’ house and] made our household very, very unhappy.” Providing cultural context, Lisa divulged, “In Iran, going through a divorce is a very shameful thing,” which seemingly took a toll on her sister’s well-being and communication patterns, leading to “some conflict with [her] sister [during childhood] that was stressful.” With her older brother, Lisa “did not feel very close growing up because of the age gap” and described him as being “annoyed with her” on quite a few occasions. Although Lisa and her siblings had some issues growing up, she felt that their relationships improved in adulthood, but her brother had a different perception in his interview.

When asked to share how her childhood unresolved hurt shaped her ability to work with her siblings amid caregiving, Lisa initially disclosed, “At the time, we put [our hurt feelings] aside [because] we’re trying to get through [the caregiving] together [to] make my mom and dad as comfortable [as possible].” After her father had passed away, however, Lisa disclosed that her brother “went on this rampage” and aggressively expressed to her, “[You] did not help enough, [you] shouldn’t have even gotten the 25% [of the inheritance], [you are] a horrible daughter, a horrible human being, [and you] had all these failed marriages!” Shocked by her brother’s verbal rampage, who she felt she had collaborated with while caring for their parents, Lisa revealed feeling “so hurt” by his disclosure, wondering why her older brother felt differently than herself.

In the interview with Lisa’s older brother, Bill (Iranian man, 72 years old) said the following about his caregiving collaboration with Lisa for their ill father, “My younger sister [Lisa] really didn’t care. She wasn't willing to be there as much. She would just say, ‘I’m busy. I am working. I’m tired.’” By contrast to Lisa’s perception that she and her siblings “helped equally” amid caregiving for their parents, Bill’s viewpoint suggests that CC may have been impeded due to inadequate contributions from Lisa. When asked to share how unresolved hurt feelings may have shaped their ability to work together amid care, Bill shared that their parents “had a lot of issues [in childhood and] maybe [Lisa] felt like I wasn’t there for her at that time, but I was in the U.S. going to college.” Here, Bill’s disclosure suggests that Lisa may not have adequately contributed to providing care for her father, possibly due to unresolved hurt toward Bill for not being supportive while navigating parental conflicts during childhood.

Taken together, the representative quotations from above and these holistic narratives suggest that unresolved childhood hurt may lead some adult caregivers to neglect their *own* original commitments to caregiving duties made at the inception of care coordination, impeding CC engagement during different periods of caregiving. Despite these original caregiving commitments, some adult caregivers’ unresolved childhood hurt toward their siblings appeared to prompt them to neglect, or provide inadequate, contributions to the caregiving experience and prevented full enactment and sustenance of CC. In doing so, many adult caregivers felt a sigh of relief by removing themselves from temporarily engaging in CC with siblings who have hurt them in the past. Others, by contrast, began ruminating on the consequences of neglecting their own caregiving responsibilities, as well as feeling guilty and disappointed in themselves for their willful negligence. Most importantly, caregiver neglect shaped by childhood unresolved hurt can prevent the ill parent from receiving the healthcare and welfare they desperately need while battling medical ailments.

Family Resources Promote/Impede CC to Shape Burden and Resentment

Differences in the sharing of family resources promoted/impeded CC with siblings by shaping more/less caregiver burden and sibling resentment, but that depended upon the quality of the relationship between resource provider and recipient of resource(s). Two types of themes emerged for the role family resources played in CC engagement with siblings amid caregiving. First, participants mentioned how more family resources promoted CC with siblings to lessen caregiver burden, but that seemed to be the case if the relationships between resource provided and recipient were closer with less tension, conflict, and problems. In these narratives, people within adult caregivers' social network were seemingly more willing to share their resources, promoting CC. Second, despite having more family resources, some participants disclosed feeling more caregiver burden and sibling resentment when sibling relationships were more distant and unsupportive, and lacked warmth. In these stories, members from participants' social network were seemingly less likely to share resources, impeding CC. Two or three participant holistic narratives (that capture the representative experiences of several participants) are provided below to highlight how the availability and sharing of family resources (or lack thereof) promoted/impeded CC with siblings to shape perceptions of caregiver burden and resentment, depending on the relational quality of individuals involved.

Family Resources Promote CC to Minimize Caregiver Burden

Some participants' narratives suggested that more family resources, such as income, savings, and support from extended family members, promoted CC with siblings to lessen caregiver burden. Taylor (Black woman, 54 years old) was providing care with her two brothers (i.e., one younger and one older) for her mother with dementia for three years. They "came up with a plan to coordinate care" at the onset of their mother's diagnosis. Taylor shared, "I lived with my mom when she first got dementia and, [therefore], I did everything for the house like cooking, laundry, and talking with her," and my oldest brother lived "out-of-state [and would] handle domestic and medical expenses [because he was] financially well-off." She continued, "my younger brother helped around the house when he came to visit," who lived 20 minutes away from Taylor.

She described her older brother as "caring, funny, and protective" and their childhood relationship as "close and supportive," mentioning they were also close in adulthood. She did not feel similarly about her younger brother because they "didn't like the same things and had different interests." While caring for her ill mother with her siblings, Taylor primarily worked with her younger brother due to residential proximity. Taylor confessed "getting into it" with her younger brother at times when he visited, but nothing too extreme. When asked to describe her experience working with both brothers to provide care for their mother, Taylor disclosed, "I'm grateful to my brothers for their help during this difficult time. We all have a role to play. [My oldest brother] takes care of finances, I oversee my mom and upkeep the apartment, and my [younger] brother visits from time to time." Taylor further testified, "I don't know what I would do without [my brothers'] help [because] you always see families fighting during these times [referring to caregiving/end-of-life processes]. I really appreciate having them help in their own ways." Here, the financial resources provided by the older brother and instrumental support given by the younger brother seemingly helped Taylor feel less burden amid CC engagement and shaped her appreciation toward having family resources amid dire circumstances.

Similar to Taylor's caregiving experience, Ronda (Latinx woman, 48 years old) provided care with the help of her younger sister to their ill mother, who had severe arthritis and mobility issues for almost seven years. When describing their caregiving responsibilities at the start of the process, Ronda disclosed, "We both naturally [assumed] all responsibilities for our mom. That's just the culture we come from. [We] do everything for our mom," referring to managing domestic tasks and providing financial support. She and her younger sister lived at home with their ill mother, which Ronda narrated as being a "good and bad thing.” She further revealed, “[Living with our mom is] good because we are [physically] close to her [and] can do everything, [but]...it’s bad [because] we are here round-the-clock…this can be exhausting.”

Despite the challenges of in-home caregiving, Ronda shared that her relationship with her younger sister is close. When asked how she would approach conflict with her sister during childhood, Ronda shared, “[My younger sister and I] never really had conflict. At least, nothing big that I remember…the usual annoying each other, but nothing big. I got along well with [my younger] sister.” Later, Ronda narrated that she and her sister had “really good relationships” with their extended family, specifically with their aunt, “who always came by to visit [their] mom [amid caregiving],” offering social and emotional support to their ill mother. When asked how having her aunt’s help shaped the caregiving process, Ronda disclosed, “[My aunt’s] help made a huge difference…it took pressure away from us. Like we were able to take a break or go do something else that was needed for the house since my aunt was home.” She further revealed, “Maybe we would [have] been more stressed if my aunt didn't visit often, but [my sister and I] didn't have to worry about that. Without her help, maybe we would fight more, too? I’m just glad we had her.” Here, the social and emotional resources provided by the aunt seemingly helped Ronda and her sister manage their caregiver burden and, possibly, avoid conflict. The resources of the family and their close relationships seemingly allowed the adult caregivers to better coordinate care as a team, facilitating the ability to enact and sustain CC more functionally.

Ultimately, some participants suggested that the more family resources they and their siblings’ had, such as financial, instrumental, social, and emotional support, the more they could effectively engage in CC with their siblings to lessen caregiver burden and prevent possible sibling conflict. The availability and sharing of family resources seemingly allowed adult caregivers to take breaks amid caregiving or run outside errands while immediate and extended family members provide temporary support to the ill parent at home. Family resources promoting CC among siblings and extended family members seemingly depended upon the quality of relationships between the resource provider and recipient, with better relational quality allowing for CC functionality.

More Burden and Resentment When Siblings Withhold Family Resources

Contrary to what was reported by the participants above, other adult caregivers mentioned experiencing more caregiver burden and resentment because their siblings withheld available resources. Having strained sibling relationships due to childhood favoritism, Mike (from earlier) described that he and his out-of-state brother at times had negative feelings toward his sister for withholding her resources while they provided care for their mom. In talking about his sister's financial capital, Mike described her as being "at the top of the hierarchy of economic resources" in his family. In reference to taking on more financial responsibility for their mother, Mike and his brother often thought to themselves, "Well, why doesn't she do it?" He further said, "We're both [he and his brother] working for a living, and my sister…not so much. So, there might be jealousy from my brother." But his brother was seemingly not the only sibling who was jealous of their sister's financial situation, as Mike later confessed, "When she goes on vacation, I dread it because she's not there for [my mom] and that's my problem. I hate when she goes. Sometimes she'll go away for a while and that's difficult for me." Here, his sister's withholding of financial resources seems to disrupt CC within the sibling network by increasing Mike's caregiver burden, which apparently shapes his jealousy and resentment toward her.

Becky (from earlier) also had a strained relationship with her sister shaped by being favored in childhood by her mother. Despite having a full-time job (i.e., financial resources) and young adult children (i.e., social, emotional, and instrumental support) capable of assisting their mother with dementia, Becky felt her sister seldom helped her in coordinating care. Becky stated, "[My sister] could be here helping more [because] she's not far away. She lives 15 minutes from my house." Becky asked her sister, the rare times she visited their ill mother, "Well, you don't love your mom, or what?" In response, her sister said, "No, it's not that. It's just that I have things to do. That's why I told you to put her in a home." Despite her sister having a full-time job, living only 15 minutes away in driving distance, and having adult children who could contribute to the caregiving process, Becky felt her sister withheld resources (i.e., financial, social, emotional, instrumental support), making her "pretty upset" and "overwhelmed" to be the primary caregiver.

Similar to Becky's experience, Cam (from earlier) likewise mentioned that his sister withheld family resources that he felt could have been used to provide care to their parent with cancer, enhancing his caregiver burden and resentment toward his sister. Cam described that his sister believed she was disfavored by their mother during childhood and still maintained current perceptions of maternal disfavoritism. During the caregiving process, Cam and his siblings agreed upon specific caregiving responsibilities at the onset, but his disfavored sister often withheld her own resources, such as instrumental support. Cam confessed, "[My sister] was supposed to give my father a ride to the hospital for his chemo appointment. No one else [in our family], expect for my mom, could stay with my father to oversee his session." He continued, "When [my sister] found out that my mom would also [travel with my dad in her car], she canceled on us." When asked how he felt by his sister withholding resources, Cam stated, “I can’t believe she could be so selfish [and I still] resent her for [neglecting her caregiving duties to] our family when [our] father desperately needed help.” When asked how the withholding of instrumental support affected care coordination with his other family members, Cam shared, “[My sister’s caregiver neglect] just made the process more burdensome…like we had to keep figuring out how to help my father every time she canceled, or started a fight, with us. It just created more work for us and more stress for our father.” Here, his sister withholding her transportation services led Cam to feel resentment toward her, his family to feel more caregiving burden, and his father to feel stressed and lose access to healthcare treatment.

Taken together, these narratives suggest that adult caregivers experienced more burden and resentment when their siblings, who they had strained relationships with, chose to withhold resources (i.e., financial, social, emotional, and instrumental support) that could have been useful to enhance CC functionality amid caregiving. In turn, the withholding of resources by sibling caregivers disrupted the status quo of CC among the whole family network, increasing stress for remaining family caregivers to rapidly discover problem-resolution (i.e., finding alternative transportation). What is worse, the ill parent often experienced collateral damage (i.e., unable to receive healthcare) because of sibling caregivers withholding resources seemingly shaped by strained familial relationships.

Discussion

When older parents have medical conditions that hinder their ability to function independently, adult caregivers and their siblings often engage in CC to offer support to their ill parent. The degree to which CC enactment among family members is functional or otherwise can depend on relational factors *brought* from the adult caregiver’s family history to the caregiving context. Although scholars have stressed the importance of, and necessity to, investigate the processual nature of CC engagement (Afifi et al., 2020), limited research has investigated CC as a process. The purpose of study two was to better understand the relational factors that shape adult caregivers' engagement in CC with siblings while coordinating care for their ill parent.

To better understand the complex and dynamic process of enacting CC to shape coping functionality, the present study proposed two research questions. The first research question sought to understand why adult caregivers with complicated family histories engage in CC with siblings to provide care to their ill parent. The second research question sought to unravel how perceptions of (a) parental favoritism in childhood, (b) unresolved childhood hurt toward siblings, and (c) family resources at the onset of caregiving shape adult caregivers' ability to enact CC with their siblings and, by extension, how these factors make CC engagement more or less functional. Overall, the findings suggest experiences from adult caregivers' childhood serve as individual and relational factors *brought* to the caregiving experience that may promote or impede CC engagement with siblings when providing care for their parent with a medical ailment.

In response to RQ_1, the findings suggest that despite unfavorable experiences from childhood, adult caregivers still engaged in CC with their siblings, who they had strained relationships with, out of a felt obligation to support their ill parent. Specifically, several adult caregivers enacted CC with their siblings at the start of caregiving, despite having relational strain with their siblings as shaped by childhood favoritism and unresolved childhood hurt, because they perceived providing care for their ill parent as the "right thing" to do. Perceptions of doing the "right thing" were often linked to adult caregivers feeling indebted to their parents (for the sacrifices they made while raising their children) and strong family ties, highlighting the salient role of family history amid care.

In answering RQ_2, the findings suggest that the harmful effects of childhood favoritism may impede CC engagement and functionality, but feeling an obligation to support their ill parent allowed adult caregivers and their siblings to enact CC. Specifically, adult caregivers who felt both favored and disfavored by their parent in childhood still engaged in CC with their siblings out of a felt obligation to provide care to their parent because offering support amid parental suffering was perceived as the “right thing” to do. In addition, the findings reveal that unresolved childhood hurt between adult caregivers and their siblings impeded CC engagement by fueling conflict episodes and provoking arguments, making the coping process dysfunctional at times, especially during periods of care coordination in which coping members neglected original commitments to their own caregiving duties. In addition, the findings suggest that the availability and sharing of resources (i.e., financial, social, emotional, instrumental support) between adult caregivers, their siblings, and members within extended family and social networks seemingly promoted CC to lessen caregiver burden. When coping members withheld their resources, however, CC became dysfunctional, amplifying adult caregivers’ burden and resentment toward siblings. Based on these findings, a discussion of theoretical contributions and practical implications is offered while accounting for the limitations of the study design, before concluding with future research directions.

Theoretical Implications of Investigating the Processual Nature of CC

The findings primarily underscore how family history brought to the caregiving experience shapes the likelihood of enacting CC, capturing the processual nature of coping communally among family caregivers. Although to a lesser degree, the findings secondarily highlight how, at times, factors from family history make CC engagement more or less functional. These findings directly respond to scholarly calls to investigate the processual nature of CC engagement (Afifi et al., 2020). Indeed, the apparent benefits of enacting CC have been questioned by researchers upon finding evidence of CC ineffectiveness, such as stress contagion (Afifi et al., 2015), coping pressure (Rossetto, 2015; Thorson, 2017), and poor mental well-being (Afifi et al., 2018b). At the onset of stressors, Afifi et al. (2020) argue better "relational quality" (p. 435) between coping members is more predictive of CC engagement and vice versa, which study two findings corroborate by showing the salient role of family history in shaping relational quality.

In this study, adult caregivers' perceived childhood favoritism and unresolved childhood hurt toward their siblings, at times, prevented CC enactment completely. In other times when CC was still enacted despite strain on sibling relationships shaped by favoritism and ongoing hurt, these negative relational qualities seemingly fueled conflict and generated arguments between family caregivers, making CC dysfunctional. Adult caregivers' unresolved childhood hurt likely interacted with CC engagement with hurt-inflicting siblings to trigger rumination, which has been linked to heightened imminent distress (Mazzer et al., 2019) and depressive symptoms (Whisman et al., 2020). Distress and depression have likewise been associated with more communicative aggression (Bushman et al., 2005). It is plausible, then, that adult caregivers' rumination of past hurt feelings while engaged in CC with siblings shaped more aggressive forms of communication with those siblings, who have hurt them in the past. In support, the findings reveal how parental favoritism and unresolved hurt can fuel conflict and generate arguments between adult caregivers and their siblings amid care coordination, making CC dysfunctional at times. These findings directly respond to scholarly calls to investigate the processual nature of CC (Afifi et al., 2020) and, by extension, fills gaps in extant literature by highlighting how relational factors brought from one's family history (i.e., childhood parental favoritism, unresolved childhood hurt) shape CC (dys)functionality.

The findings underscore how felt obligation allowed many adult caregivers to still enact CC with siblings, who have hurt them in the past, which may highlight the important role of collectivism and sacrifice in the caregiving context. Despite the small sample size, the racial/ethnic characteristics in this sample suggest that most participants were from collectivistic cultures. Regardless of the negative effects of childhood favoritism and unresolved childhood hurt, many adult caregivers with high felt obligation were likely willing to make individual sacrifices to reduce parental suffering, even at the expense of communally coping with siblings they had strained relationships with. Indeed, research shows that collectivistic groups (compared to individualistic groups) had more felt obligation to family, which motivated them to make high-cost sacrifices for their parents' welfare (Wang &Miller, 2020). In support, some adult caregivers (i.e., Linda) narrated their willingness to sacrifice, or place to the side, their current grievances with siblings shaped by childhood favoritism or ongoing hurt to ultimately prioritize family needs: collective care coordination to support the ill parent. Despite factors like childhood favoritism and unresolved hurt that may impede CC, study two findings support and extend TMCC-based (Afifi et al., 2020) arguments by underscoring how high felt obligation to one's parent may promote CC with siblings.

The findings from study two, specifically related to felt obligation, also validate TMCC (Afifi et al., 2002) arguments based on the predictive power of "identification with others" (p. 436) to shape CC (dis)engagement. Afifi et al. (2020) argue that the degree to which coping members identify with others involved may predict CC engagement, which study two findings corroborate. On one hand, many adult caregivers entered caregiving with pre-existing in-group identities (i.e., those who felt a high obligation to provide care) within the family network, promoting CC with siblings. The high felt obligation Michelle and her brothers brought to the caregiving process, for example, captures their in-group identification that appeared to allow for greater CC enactment. Research shows that, within immigrant families, children who experienced language-brokering stress (i.e., in-group) enacted CC to manage their stress with immediate and extended family (Mendez Murillo, 2018). Stronger in-group identification within the family network (i.e., more felt obligation) likely promoted CC because adult caregivers and their siblings perceived care coordination as a shared familial stressor that necessitates teamwork. By extension, they likely engaged in constructive communication and equitable division of caregiving labor to manage parental caregiving needs, making CC more functional.

On the other hand, others either started caregiving with pre-existing out-group identities (i.e., those who felt a low obligation to provide care), or developed such identities during the care coordination process, impeding CC enactment or making CC engagement with the family network more dysfunctional at times. The discrepancies in felt obligation between Richie and his out-of-town siblings who felt high obligation (i.e., in-group) compared to his younger sister who felt low obligation (i.e., out-group) seemingly impeded CC enactment at different periods of their caregiving experience. Indeed, research reveals that individuals who felt ostracized within their own family (i.e., out-group) experienced challenges with CC engagement (Dorrance Hall, 2018). Out-group sibling caregivers faced difficulties with enacting CC with in-group family caregivers likely due to differences in perceived caregiver goals at the family level. Some out-group members may not have viewed the management of parental needs necessitating teamwork.

In addition to highlighting the importance of relational quality and identification with others, the present study examined the significance of pre-existing resources when navigating stressors, responding to scholarly calls to examine the role of resources in CC (Afifi et al., 2020; Crowley & Pederson, 2022). The availability and sharing of resources, or lack thereof, seemingly shaped CC (dys)functionality to lessen or amplify adult caregivers' sense of burden and resentment felt toward siblings amid caregiving. In this study, many adult caregivers narrated feeling less caregiver burden when they had more family resources, specifically support from close others. Research shows that family caregivers who have more support from their social network (i.e., supervisor, colleague) tend to have better mental well-being amid navigating caregiving demands (Boumans & Dorant, 2021). Conversely, other adult caregivers described feeling more caregiver burden and resentment toward siblings when siblings had resources to share, but withheld them at different stages of caregiving. Indeed, research shows that lack of family resources strongly predicts depressive symptoms for family members involved (Lawrence, 2022). As such, some adult caregivers likely experienced more caregiving stress and anxiety when their siblings withheld resources, potentially explaining why some felt more burden and resentment. Thus, these findings offer empirical support to a key proposal of the TMCC (Afifi et al., 2020), namely that availability and sharing of resources promote CC engagement and shape CC functionality. However, withholding resources intentionally undermines the likelihood of enacting CC with siblings.

Practical Implications

Practical implications must be addressed for adult caregivers and their families based on study two findings, which suggest CC (dys)functionality can be shaped by the complicated family history adult caregivers bring into the caregiving context, playing a role in shaping coping outcomes. Although caregiving interventions primarily focus on offering support to patients or care-recipients (Reinhard et al., 2008), study two highlights the need to address support gaps for adult caregivers and their non-patient family members. Indeed, studies on caregiving interventions to enhance support for adult caregivers and their families are limited compared to studies advocating support for patients (Reinhard et al., 2008). Even though studies have addressed the needs of family caregivers (Fernandes & Angelo, 2016), caregiver interventions must focus on the role family history plays in CC enactment between adult caregivers and their siblings in response to caregiving for a parent with a medical condition.

Caregiver Interventions Must Emphasize the Role of Family History in CC

When generating caregiving interventions for families, researchers must emphasize how relational factors brought from adult caregivers' family history, such as unresolved hurt feelings toward siblings from childhood, may shape their disengagement from CC with siblings and negligence of caregiving responsibilities to their ill parent. The findings from study two suggest that some adult caregivers seemingly neglect their caregiving duties to their ill parent out of unresolved hurt feelings toward their siblings. Despite committing to providing care, for example, Martin confessed to purposefully not taking his mother to her hospital appointments on separate occasions, explicitly to avoid seeing his sister, who he had unresolved hurt feelings toward. Martin's actions are synonymous with caregiver neglect (Chang et al., 2023) and, by extension, the consequences of his omission of caregiving assistance to his parent constitute elder mistreatment (Yadav et al., 2018). Caregiver neglect and elder mistreatment can negatively impact management of medical ailment, ill parent's well-being, and familial ability to enact CC to manage the demands of caregiving. Thus, family caregiver interventions must address the critical role unresolved hurt feelings between siblings brought from adult caregivers' family history play in shaping CC dysfunctionality.

When practitioners (i.e., social workers, medical professionals, therapists) develop family caregiver interventions, they must also address the consequences of providing care out of a felt obligation to parents, despite the effects parental (dis)favoritism seems to have on sibling relationships. The narratives from study two suggest that adult caregivers who perceived to have been favored by their parent in childhood seemingly felt obligated to take on more caregiving responsibilities, despite receiving less help from disfavored siblings, which was narrated to produce more caregiver burden and sibling resentment. Because parental (dis)favoritism predicts a lack of sibling warmth and closeness (Suitor et al., 2009), caregiver interventions should focus on educating adult caregivers of the consequences of providing care out of obligation when siblings neglect caregiving duties, including increased burden and sibling resentment.

Another consideration for researchers generating future family caregiver interventions must be the associations between family resources, quality of sibling relationships, and coping outcomes. Study two findings suggest that some adult caregivers or their siblings, despite having family resources, choose to withhold support out of spite, impeding CC engagement among family members involved. Indeed, research shows that caregiver neglect often occurs due to a lack of family resources (Choi et al., 2009), but the current study reveals how damaged familial relationships may immobilize the existing resources within the family unit. Thus, caregiver interventions at the family level must account for how some adult caregivers may intentionally immobilize existing family resources out of old grievances toward parents and siblings involved in the caregiving process.

Limitations and Future Directions

Although study two findings offer insight into the relational factors brought from adult caregivers' family history that make CC more or less functional, these findings must be set within limitations of the study design. First, one limitation is that the results of study two lack generalizability power (although some participants did narrate causal links between family history and CC amid caregiving). Notably, though, qualitative research maintains the power of transferability in which study two findings may apply to adult caregivers with similar demographics and contextual characteristics as participants in this sample. Second, another limitation is that the current study only interviewed adult caregivers, which limits the study because the findings cannot compare such perspectives with their siblings to more carefully assess family dynamics that shape CC functionality (although one sibling pair did participate).

Despite these limitations, study two provides incredible heuristic value. Future research should investigate the processual nature of CC, attempting to better understand how CC engagement between siblings may constructively or destructively evolve over time while navigating the same stressor. In addition, researchers should examine the interaction between childhood and adulthood parental (dis)favoritism in the context of CC amid caregiving with siblings. In other words, scholars should analyze whether CC (dys)functionality alters when comparing less childhood but more adulthood (dys)favoritism versus more childhood but less adulthood (dys)favoritism. In addition, some caregivers expressed unresolved hurt feelings toward parents that shaped CC amid caregiving with siblings. Therefore, future research should also test how unresolved hurt feelings toward the ill parent shapes CC functionality, especially pertaining to caregiver neglect or elder mistreatment.

Chapter 6. Overall Mixed-Methods Discussion

Parents become more susceptible to the development of medical ailments as they approach or enter old age, compromising their abilities to live without assistance from formal or informal caregivers. Consequently, adult children often collaborate with their siblings to not only jointly "own" or identify with their parent's illness, but also manage caregiving responsibilities for it as a collective–a process known as CC (Afifi et al., 2020). Although the financial strain and laborious efforts often associated with providing care to an ill parent can be challenging for family caregivers (Reinhard et al., 2023), engaging in CC should help alleviate such difficulties via collective effort. Indeed, research shows that CC enactment generally yields favorable coping outcomes (see Afifi et al., 2012; Koehly et al., 2008; Lewis et al., 2018), but can also backfire at times, increasing stress contagion effects (Afifi et al., 2015) and pressure to cope (Rossetto, 2015). Although CC enactment can be useful in the caregiving context, little is known about how adult caregivers' family history *brought* to the care coordination process shapes their ability to engage in CC with siblings while supporting their parent with medical conditions.

Using a sequential-explanatory, mixed-methods design (Creswell & Clark, 2017), this dissertation sheds light on how adult caregivers' perceptions of childhood favoritism, unresolved childhood hurt, and family functioning in childhood (i.e., family history) shape CC enactment with their siblings amid caregiving for their ill parent. Study one surveyed a large group of adult caregivers (N = 776) to test a hypothesized model indirectly linking family history, CC enactment, and coping outcomes (i.e., caregiver burden, resentment, flourishing), with felt obligation and family resources moderating such indirect associations. Interviewing adult caregivers (N = 30) dealing with financial hardship, study two explored

(1) why adult caregivers engage in CC with siblings to support their parent despite sharing a complicated family history and (2) how (a) childhood favoritism, (b) unresolved childhood hurt, and (3) family resources shape CC engagement, and how such factors make CC enactment more or less functional. Separately, the results/findings from each study provide valuable insights into the interactions between family history, CC with siblings, and relational and individual well-being.

When triangulating the quantitative results with the qualitative findings, this mixed-methods dissertation highlights that adult caregivers' family history plays a complex and dynamic role in shaping CC engagement with siblings when providing care for an ill parent. Broadly, study one results reveal that higher levels of perceived favoritism toward siblings and unresolved hurt feelings toward siblings from childhood positively associated with more CC engagement with siblings, which, in turn, predicted caregiver burden, sibling resentment, and flourishing. Although the positive associations between both favoritism and unresolved hurt and that of CC was in the opposite direction of the hypothesized model (in study one), study two findings cast light as to why adult caregivers enacted CC despite a family history of maltreatment. Despite having strained relationships with siblings due to favoritism and unresolved hurt from childhood, study two findings reveal that many adult caregivers enacted CC with siblings out of a felt obligation to provide care for their ill parent. While study one results establish *what* factors from family history associate with CC and well-being outcomes, the findings from study two unpack *why* such factors from the past shape the process of (dis)engaging in CC with siblings at different periods of caregiving. In addition, study two findings build upon study one results by highlighting *how* family history makes CC engagement more or less functional. Below, a discussion is offered of what each study contributes separately, as well as how the results/findings of both studies inform theory and practice related to CC and caregiving.

Study One: Quantitative Takeaways

In study one, the quantitative results reveal that the more adult caregivers perceived their family to function well during childhood, the more likely they were to enact CC with their siblings, which, in turn, was associated with less caregiver burden and sibling resentment and more flourishing. The indirect association specifically concerning flourishing, however, depended upon having moderate to high levels of family resources. Put differently, adult caregivers' perceived childhood family functioning predicted CC enactment with siblings, which in turn, predicted flourishing, but only when they reported having moderate to high family resources at the onset of caregiving. These results shed light on the salient role family history plays amid caregiving, specifically that childhood experiences shape CC engagement between adult caregivers and their family decades later in the caregiving and/or end-of-life context. Additionally, these results show that the benefits of certain forms of family communication are intertwined with resource availability. Without sufficient resources, positive communication does not appear to have the same degree of indirect benefits on flourishing.

In the opposite direction of what was hypothesized, study one also found that adult caregivers' higher perceptions of parental favoritism toward siblings in childhood positively predicted CC engagement with those siblings, which, in turn, were associated with less burden and sibling resentment, and more flourishing. This indirect association between favoritism and coping outcomes, however, depended on high felt obligation to provide care to their parent. In other words, adult caregivers' higher perceived childhood favoritism toward siblings predicted CC engagement with siblings, which, in turn, predicted less caregiver burden and sibling resentment, and more flourishing, but only when they reported high felt obligation to provide care to their parent at the start of caregiving. Like the moderating effect of felt obligation, family resources had the same moderating effect to predict more flourishing (but not burden or resentment) when adult caregivers reported having high family resources at the start of caregiving. Although inconsistent with the hypothesized model, these results illuminate how the urgency of the caregiving context (i.e., felt obligation) and availability of family resources may allow some adult caregivers to enact CC with siblings they have strained relationships with from childhood, predicting better well-being (i.e., less burden and resentment, and more flourishing).

Similar to the favoritism predictions, adult caregivers' unresolved childhood hurt toward siblings were positively linked with CC engagement with those siblings (i.e., opposite of prediction), which, in turn, were associated with less caregiver burden and resentment toward siblings, and more flourishing. While these indirect associations between hurt and coping outcomes via CC were not dependent on felt obligation, the mediational path concerning flourishing was contingent on having moderate to high family resources. Put differently, adult caregivers who felt more unresolved childhood hurt toward their siblings experienced greater flourishing through CC engagement with those siblings when they reported having moderate to high family resources at the onset of care coordination. These results capture the essential role of resources amid caregiving, namely how having moderate to high resources can make a little bit more bearable the navigation of difficult caregiving and/or end-of-life situations in which adult caregivers cope together with siblings who have hurt them in the past.

Despite providing useful insight on the caregiving and CC process, study one's quantitative design had several limitations. Most notably, study one results cast light on linear processes involved in the caregiving and CC process, but the results were unable to capture "why" and "how" adult caregivers' family history shapes CC enactment with siblings and, by extension, how CC engagement among family caregivers with a history of favoritism and unresolved hurt becomes more or less functional. Lastly, most adult caregivers in study one were White/European-American (*n* = 541 or 69.4%) and relatively educated and financially stable, which does not adequately capture the diverse racial/ethnic experiences of caregivers dealing with financial hardship.

Study Two: Qualitative Insights

Taking into account the limitations of the first study, the qualitative findings from study two highlight that adult caregivers enact CC with siblings–despite having strained relationships with them due to a history of favoritism–out of a felt obligation to provide care to their parent. In spite of pre-existing relational strain, both favored and disfavored adult caregivers shared examples of how they communally coped with siblings because offering support to manage parental care needs was viewed as the "right thing" to do. This felt obligation was linked to adult caregivers' feelings of indebtedness toward parents for the sacrifices they made when childrearing and out of a sense of urgency to reduce parental suffering caused by medical conditions in the context of caregiving. Engaging in CC with siblings through felt obligation had mixed consequences for family caregivers. While some adult caregivers felt happiness, serenity, and lack of regret after CC engagement, others left the experience feeling stressed, unhappy, and unappreciated by siblings. These findings underscore the essential interplay between situational urgency (i.e., the need to quickly respond to emergent life transitions caused by caregiving demands) and individual agency (i.e., caregivers' choice, or lack thereof, to cope with people who have hurt them) shaped by family history.

In addition to felt obligation, the findings illuminate how unresolved childhood hurt not only impedes CC engagement with siblings, but can also make the coping process ineffective among members in the family network. At distinct stages of caregiving, numerous adult caregivers encountered conflict and engaged in arguments shaped by ongoing hurt between siblings. These argumentative disruptions to CC engagement created in-group versus out-group dynamics, leading to heightened stress for some family caregivers involved, making CC enactment more dysfunctional. These familial conflicts and arguments seemed to then lead some adult caregivers to neglect their own commitments to caregiving duties, such as intentionally not taking their parent to hospital visits to avoid their sibling (i.e., Martin). In doing so, many adult caregivers, who neglected their own responsibilities, narrated feeling guilty and ashamed of their neglectful actions. Other adult caregivers, whose siblings chose to neglect their caregiving duties, left the experience feeling disappointed in their siblings and experiencing more caregiver burden. These findings suggest many adult caregivers may be unaware of the consequences of engaging CC with those who have hurt them in the past, including detriments to individual and relational health, but also, more importantly, barriers to healthcare for ill parents involved.

The availability and sharing of family resources, such as financial, social, emotional, and instrumental support, also played an important role in adult caregivers' ability to enact CC with their siblings. When adult caregivers narrated having and sharing more resources, they felt less caregiver burden because resources allowed them to take breaks from caregiving or run outside errands by leaving their ill parent under the supervision of people within their extended family or social network. By contrast, when adult caregivers said their siblings withheld resources, they developed resentment toward their siblings because they felt more caregiver burden. These findings suggest that the availability and sharing of family resources can make CC enactment more functional (i.e., less caregiver stress, burden), but the withholding of resources can create resentment by adding more to the caregiving workload.

Conclusions from Mixed-Methods

Taken together, this dissertation illuminates two overarching takeaways: when adult caregivers enact CC with siblings to support their parent with a medical condition, (1) *family history* and (2) *caregiving context* matter. On the one hand, the quantitative results show how adult caregivers' experiences linked to family functioning in childhood shape the relational qualities they *bring* to the caregiving stressor, which, in turn, predict their CC engagement with siblings while providing care to their parent, highlighting that *family history* matters. On the other hand, the qualitative findings reveal how adult caregivers' felt obligation to provide care to their parent allows CC enactment with siblings at the onset of caregiving, despite a family history of parental favoritism and unresolved hurt feelings, underscoring that the *caregiving context* matters. In other words, the urgency of the medical condition and need for caregiving seemingly allowed adult caregivers to enact CC with those who have hurt them in the past. The overall findings have important implications for theory, practice, and future research.

Extending Theoretical Understandings of CC

The findings from this dissertation extend the arguments set forth in the TMCC (Afifi et al., 2020) in a few meaningful ways. In study one, adult caregivers' perceptions of childhood parental favoritism toward siblings and feelings of unresolved childhood hurt toward siblings were positively associated with CC engagement with siblings, which provides important nuances to the TMCC (Afifi et al, 2020) arguments regarding relational quality. The findings from study two, however, offer explanations as to why these associations were unexpectedly positive. Namely, the qualitative findings show that adult caregivers' felt obligation to their parent allowed them to ultimately enact CC with siblings, who have been more favored by their parent or hurt them during childhood. The TMCC (Afifi et al., 2020) holds that the nature of the stressor, including stressor type and severity, predicts CC enactment. As such, despite issues brought from family history, adult caregivers were likely able to still enact CC with siblings because care coordination is a type of stressor that is well suited for collective efforts and managing serious medical ailments (i.e., cancer, dementia, heart disease, immobility) can be severe and intense.

Based on the TMCC (Afifi et al., 2020), this dissertation validates the notion that pre-existing resources predict degree of CC enactment and, by extension, make CC engagement more or less functional. Study one revealed that the indirect associations between (1) childhood favoritism toward siblings, (2) family functioning in childhood, and (3) unresolved child hurt toward siblings and flourishing via CC engagement with siblings were dependent on high family resources. Building on these results, study two shows that the withholding of family resources can make adult caregivers feel more caregiver burden and resentment toward siblings because they receive less help from their siblings. Taken together, these findings suggest that the sharing of family resources may promote CC, but the withholding of resources can make CC engagement more dysfunctional via heightened caregiving stress and burden. In doing so, this dissertation responds to scholarly calls to investigate the interplay between CC and resources (Afifi et al., 2020; Crowley & Pederson, 2022).

Practical Implications for Caregiver Interventions

Considering the imperative role of family history in the caregiving context, when developing future caregiver interventions, practitioners (i.e., social workers, medical professionals, therapists) must not only become more aware of but also account for the implications linked to the enactment of CC by adult caregivers within family networks that have a history of favoritism and unresolved hurt stemming from childhood. Practitioners should also stress the importance of choice by helping adult caregivers realize they have agency when deciding how to involve themselves in the care coordination process, especially when collaborating with family members they have strained relationships with. In addition, practitioners should also create caregiver interventions using a trauma-informed approach, carefully assessing family interactions that may be indicative of a history of maltreatment between adult caregivers (Wygant et al., 2011). Taking these steps when developing imminent caregivers interventions should help adult caregivers more effectively enact CC with family members or choose to provide care for their ill parent without collaborating with people who have hurt them in the past.

Using Family History to Look Ahead

Ultimately, the mixed-methods findings from this dissertation have some heuristic value for future research. Considering that the indirect associations between favoritism and unresolved hurt with CC were positive (which is opposite of the prediction made in study one), future research should more carefully account for relational challenges from childhood to adulthood that may explain why adult caregivers enact CC with siblings. One way to account for this would be to measure relational quality between siblings in both childhood and adulthood, which would provide more insight into attempts of relational repair over one’s life course. In addition, study one was cross-sectional in nature and, therefore, the results lack power to make causal inferences between family history and CC. Future research should longitudinally investigate how family history shapes CC engagement between adult caregivers and their siblings over time as medical ailments progress, making care coordination more intense for family caregivers.

The present study reveals how adult caregivers’ childhood experiences set the stage for CC engagement with their siblings decades later when supporting their parent with a medical condition. Importantly, the findings from this mixed-methods investigation show that unaddressed family issues buried in childhood can resurface on the grounds of caregiving, which, in turn, can make the process of engaging in CC with family caregivers more or less functional. Although the phrase “family is forever” can be contested, this study underscores that childhood experiences clearly have enduring effects on adult caregivers decades later when trying to support their ill parent by communally coping with siblings, despite a family history of favoritism and unresolved hurt feelings.

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Appendix A: Questionnaire for Study One

Family History & Caregiving Survey

Start of Block: Consent

Welcome to the Family History and Caregiving Research Study!

You are asked to participate in a research study about your experiences as an adult caregiver providing care for your aging parents with the help of your sibling(s). We are particularly interested in understanding how your family history shapes the caregiving process. Family history refers to experiences from childhood (or from infancy to 18 years of age) involving (i) parental favoritism, (ii) unresolved hurt feelings between sibling(s), (iii) family functioning.

INCLUSION CRITERIA
In order to participate in this study, you must:
(a) be 30 years of age or older
(b) have at least one aging parent with a medical illness/condition
(c) have one or more sibling(s) who provides care with you for your parent
(d) identify as the primary caregiver for your parent
(e) live with your parent (or vice versa) either permanently or occasionally (for caregiving purposes)

PURPOSE OF THE STUDY
Your participation in this study will help us learn more about the caregiving experience, including what factors from your relational history with family influence your ability to cope with siblings while providing care to aging parents.

PROCEDURES
If you volunteer to participate in this study: You will be asked to complete an online survey/questionnaire concerning your experience as an adult caregiver of aging parents. The survey should take about 20-30 minutes on average.

POTENTIAL RISKS AND DISCOMFORTS
The potential risk for subjects completing this questionnaire include minor emotional discomfort when reflecting on your past experiences with siblings and current challenges with caregiving for aging parents. Although no guarantee can be made regarding the tracking or interception of subjects' responses by third parties, the survey will be administered using a Transport Layer Security (TLS) encryption (also known as SSLv3.1), which is used by many data-sensitive websites, including online banking sites, to securely transmit and store confidential user information.

COMPENSATION FOR PARTICIPATION
You will receive $5 for your participation in this study (as long as majority of survey is

completed).

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential to the degree permitted by the technology used or as required by law.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise, which in the opinion of the researcher warrant doing so.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Abdullah Salehuddin (PhD Candidate) or Dr. Tammy Afifi (UCSB Communication Department Chair and Professor) or Dr. Andy Merolla (UCSB Communication Department Associate Professor), the Principal Investigators. We can be reached using the following emails:

Abdullah: abdullah_salehuddin@ucsb.edu
Tammy: tafifi@ucsb.edu
Andy: amerolla@ucsb.edu

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact the Office of University Research, UC Santa Barbara, 3227 Cheadle Hall, MC2050, Santa Barbara, CA, 93106; Telephone: (805) 893-4188.

Please note you are welcome to print a copy of this form to retain for your records. This survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device. Thank you for your time!

If you do not wish to participate, then please exit this informed consent form by closing your internet browser. If you do agree to participate, please click on “Yes” below.

○ Yes (1)

○ No (2)

Skip To: End of Survey If Welcome to the Family History and Caregiving Research Study! You are asked to participate in a re... = No

Skip To: End of Block If Welcome to the Family History and Caregiving Research Study! You are asked to participate in a re... = Yes

End of Block: Consent

Start of Block: Prolific ID

What is your Prolific ID?
Please note that this response should auto-fill with the correct ID.

____

End of Block: Prolific ID

Start of Block: Primary Parent

Page Break

Directions: Please respond to the following questions about your parent who you primarily provide care for. See definitions below for reference:

"PARENT" refers to an individual who raised you as a parental figure, which can include, but is not limited to: (1) mother, (2) father, (3) grand-parent, (4) uncle, (5) aunt, etc.

"PROVIDE CARE" or "CAREGIVING" means many things, which include, but are not limited to:
(1) driving your parent to the hospital
(2) picking up your parent's medicine from the pharmacy and/or taking them to the doctor
(3) giving your parent medicine in a timely manner
(4) doing chores for your parents (such as cooking, cleaning, and shopping for them etc.)
(5) bathing or giving a shower to your parent
(6) talking/listening to your parent to offer comfort or support
(7) offering advice to help them make important decisions
(8) offering assistance with financial decisions and bills
(9) other types of care.

Do you provide care for your parent with at least one sibling or more?

○ Yes (1)

○ No (2)

Skip To: End of Survey If Directions: Please respond to the following questions about your parent who you primarily provide... = No

Page Break

Does your parent live with you at your residence/home?

○ Yes (1)

○ No, I live with my parent at their residence/home (2)

○ Not normally, but sometimes (I live with them to provide care or they live with me to receive care) (3)

○ My parent and I do not live together at all (4)

Skip To: End of Survey If Does your parent live with you at your residence/home? = My parent and I do not live together at all

Page Break

Did your parent move into your residence/home because of a medical illness?

○ Yes (1)

○ No, my parent was already living at my residence/home before their medical illness was diagnosed (3)

○ No, I moved into my parent's residence/home because of their medical illness (2)

○ No, I was already living at my parent's residence/home before their medical illness was diagnosed (4)

○ My parent does not have a medical illness or condition (5)

Skip To: End of Survey If Did your parent move into your residence/home because of a medical illness? = My parent does not have a medical illness or condition

Page Break

Please indicate the reason why your parent needs care (please check all that apply).

☐ Arthritis (1)

☐ Cancer (2)

☐ Chronic kidney disease (3)

☐ Dementia; Alzheimer's or Parkinson's disease (4)

☐ Diabetes (5)

☐ Osteoporosis (6)

☐ Other (please specify (7) ____

How long have your been caregiving for (or providing care to) your parent with the medical illness?

○ 1 - 5 months (1)

○ 6 - 11 months (2)

○ 1 year (3)

○ 2 years (4)

○ 3 years (5)

○ 4 years (6)

○ 5 years (7)

○ 6 years (8)

○ 7 years (9)

○ 8 years (10)

○ 9 years (11)

○ 10 years or more (12)

On average, how many hours per week do you provide care for your parent with the medical illness?

○ 1 hour or less (1)

○ 2 - 8 hours (2)

○ 9 - 15 hours (3)

○ 16 - 25 hours (4)

○ 26 - 40 hours (5)

○ 40 hours or more (6)

✱

What is your parent's age (in years)?

____

What is your parent's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as a man or woman) (3)

○ Transgender (those transitioning from their assigned gender at birth to the opposite) (4)

○ Other (please specify (5) ____

○ Prefer not to say (6)

What is your parent's marital status?

○ Single (1)

○ Engaged (2)

○ Married (3)

○ Divorced (4)

○ Remarried (5)

○ Widowed (6)

○ Other (please specify) (7) ____

What is your parent's sexual orientation?

○ Straight/heterosexual (sexually attracted to the opposite sex) (1)

○ Gay/lesbian (sexually attracted to the same sex) (2)

○ Bisexual (sexually attracted to both female and male) (3)

○ Asexual (not sexually attracted toward any sex) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your parent's race/ethnicity? If mixed-race, please select all that apply.

☐ White/European American (1)

☐ Black/African American (2)

☐ Hispanic/Latinx (3)

☐ Asian/Asian American (4)

☐ Pacific Islander (5)

☐ Native American (6)

☐ Arab (7)

☐ Other (please specify) (8)

____

What is your parent's highest level of education?

○ Some high school (1)

○ High school degree (2)

○ Some college (3)

○ Associate's degree (4)

○ Bachelor's degree (5)

○ Master's degree (6)

○ PhD, MD, or other advanced degree (7)

○ Other (please specify) (8) ____

End of Block: Primary Parent

Start of Block: "Other Parent"

Directions: If applicable, please respond to the following questions about your "OTHER PARENT." For reference, see definitions below:

"OTHER PARENT" refers to an individual, *aside from the parent you are primarily providing care for*, who also raised you as a parental figure, which can include, but is not limited to: (1) mother, (2) father, (3) grand-parent, (4) uncle, (5) aunt, etc.

"PROVIDE CARE" or "CAREGIVING" means many things, which can include, but is not limited to:
(1) driving your "other" parent to the hospital
(2) picking up your "other" parent's medicine from the pharmacy and/or taking them to the doctor
(3) giving your "other" parent medicine in a timely manner
(4) doing chores for your "other" parent (such as cooking, cleaning, and shopping for them etc.)
(5) bathing or giving a shower to your "other" parent
(6) talking/listening to your "other" parent to offer comfort or support
(7) offering advice to help them make important decisions
(8) offering assistance with financial decisions and bills
(9) other types of care

Is your "OTHER PARENT" still alive (applicable only if you come from a family with more than one parent)?

○ Yes (1)

○ No (2)

○ I come from a family with only one parent (3)

Skip To: Q15 If Directions: If applicable, please respond to the following questions about your "OTHER PARENT." F... = No

Skip To: Q17 If Directions: If applicable, please respond to the following questions about your "OTHER PARENT." F... = Yes

Skip To: End of Block If Directions: If applicable, please respond to the following questions about your "OTHER PARENT." F... = I come from a family with only one parent

Page Break

Did your "OTHER PARENT" pass away between the time you started caregiving and now?

○ Yes (1)

○ No (2)

Skip To: End of Block If Did your "OTHER PARENT" pass away between the time you started caregiving and now? = No

Skip To: Q16 If Did your "OTHER PARENT" pass away between the time you started caregiving and now? = Yes

Page Break

How long ago did your "OTHER PARENT" pass away (in years)?

____

Skip To: End of Block If Condition: How long ago did your &quot... Is Not Empty. Skip To: End of Block.

Page Break

Are you also caregiving or providing care for your "OTHER PARENT"?

○ Yes (1)

○ No (2)

Skip To: Q22 If Are you also caregiving or providing care for your "OTHER PARENT"? = No

Where does your "OTHER PARENT" live?

○ My other parent lives with me (1)

○ My other parent does not live with me (2)

Did your "OTHER PARENT" move into your residence/home because of a medical illness?

○ Yes (1)

○ No, my other parent was already living at my residence/home before their medical illness was diagnosed (2)

○ No, I moved into my other parent's residence/home because of their medical illness (4)

○ No, I was already living at my other parent's residence/home before their medical illness was diagnosed (7)

○ My other parent does not have a medical illness (3)

Skip To: Q22 If Did your "OTHER PARENT" move into your residence/home because of a medical illness? = My other parent does not have a medical illness

Please indicate the reason why your "OTHER PARENT" needs care (please select all that apply).

☐ Arthritis (1)

☐ Cancer (2)

☐ Chronic kidney disease (3)

☐ Dementia; Alzheimer's or Parkinson's disease (4)

☐ Diabetes (5)

☐ Osteoporosis (6)

☐ Other (please specify) (7) ____

How long have you been providing care for your "OTHER PARENT" with the medical illness?

○ 1 - 5 months (1)

○ 6 - 11 months (2)

○ 1 year (3)

○ 2 years (4)

○ 3 years (5)

○ 4 years (6)

○ 5 years (7)

○ 6 years (8)

○ 7 years (9)

○ 8 years (10)

○ 9 years (11)

○ 10 years or more (12)

On average, how many hours per week do you provide care for your "OTHER PARENT"?

○ 1 hour or less (1)

○ 2 - 8 hours (2)

○ 9 - 15 hours (3)

○ 16 - 25 hours (4)

○ 26 - 40 hours (5)

○ 40 hours or more (6)

What is your "OTHER PARENT'S" age (in years)?

____

What is your "OTHER PARENT'S" gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transiting from their assigned gender to the opposite) (4)

○ Other (please specify (5) ____

○ Prefer not to say (6)

What is your "OTHER PARENT'S" sexual orientation?

○ Straight/heterosexual (sexually attracted to the opposite sex) (1)

○ Gay/lesbian (sexually attracted to the same sex) (2)

○ Bisexual (sexually attracted to both female and male) (3)

○ Asexual (not sexually attracted to any sex) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your "OTHER PARENT'S" race/ethnicity? If mixed-race, please select all that apply.

☐ White/European American (1)

☐ Black/African American (2)

☐ Hispanic/Latinx (3)

☐ Asian/Asian American (4)

☐ Pacific Islander (5)

☐ Native American (6)

☐ Arab (7)

☐ Other (please specify) (8)

____

☐ Prefer not to say (9)

What is your "OTHER PARENT'S" highest level of education?

○ Some high school (1)

○ High school degree (2)

○ Some college (3)

○ Associate's degree (4)

○ Bachelor's degree (5)

○ Master's degree (6)

○ PhD, MD, or other advanced degree (7)

○ Other (please specify) (8) ____

End of Block: "Other Parent"

Start of Block: Adult Caregiver

What is your biological sex?

○ Male (1)

○ Female (2)

○ Inter-sex (those with both female and male reproductive organs) (3)

○ Prefer not to say (4)

What is your gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your sexual orientation?

○ Straight/heterosexual (sexually attracted to the opposite sex) (1)

○ Gay/lesbian (sexually attracted to the opposite sex) (2)

○ Bisexual (sexually attracted to both male and female) (3)

○ Asexual (not sexually attracted to any sex) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

*

What is your age (in years)?

____

What is your race/ethnicity? If mixed-race, please select all that apply.

☐ White/European American (1)

☐ Black/African American (2)

☐ Hispanic/Latinx (3)

☐ Asian/Asian American (4)

☐ Pacific Islander (5)

☐ Native American (6)

☐ Arab (7)

☐ Other (please specify) (8)

☐ Prefer not to say (9)

What is your highest level of education?

○ Some high school (1)

○ High school degree (2)

○ Some college (3)

○ Associate's degree (4)

○ Bachelor's degree (5)

○ Master's degree (6)

○ PhD, MD, or other advanced degree (7)

○ Other (please specify) (8) ____

What is your current employment/work status?

○ I work full-time (40 hours weekly or more) (1)

○ I work part-time (less than 30 hours weekly) (2)

○ I am unemployed (3)

○ I am retired (4)

To the best of your ability, please indicate the answer that approximates your entire household income in 2022 before taxes.

○ Less than $10,000 (1)

○ $10,000 - $19,999 (2)

○ $20,000 - $29,999 (3)

○ $30,000 - $39,999 (4)

○ $40,000 - $49,999 (5)

○ $50,000 - $59,999 (6)

○ $60,000 - $69,999 (7)

○ $70,000 - $79,999 (8)

○ $80,000 - $89,999 (9)

○ $90,000 - $99,999 (10)

○ $100,000 - $149,999 (11)

○ $150,000 - $199,999 (12)

○ $200,000 or more (13)

○ Prefer not to say (14)

What is your marital status?

○ Single (1)

○ Engaged (2)

○ Married (3)

○ Divorced (4)

○ Remarried (5)

○ Widowed (6)

○ Other (please specify) (7) ____

Do you have any children (biological or otherwise)?

○ Yes (1)

○ No (2)

End of Block: Adult Caregiver

Start of Block: Children

How many children do you have?

○ 1 (1)

○ 2 (2)

○ 3 (3)

○ 4 or more (4)

End of Block: Children

Start of Block: Four Children Block

*

Directions: please answer the questions in order from oldest child to youngest child.

What is your **oldest** child's age (in years)?

____

*

What is your **second oldest** child's age (in years)?

____

*

What is your **third oldest** child's age (in years)?

____

*

What is your **youngest** child's age (in years)?

____

Do your children live with you at your residence/home?

○ Yes, all my children live with me. (1)

○ Some of my children live with me. (2)

○ None of my children live with me. (3)

End of Block: Four Children Block

Start of Block: Siblings

How many siblings do you have?

○ 1 (1)

○ 2 (2)

○ 3 (3)

○ 4 or more (4)

End of Block: Siblings

Start of Block: Four Siblings Block

*

Directions: please answer the questions in order from oldest sibling to youngest sibling.

What is your **oldest** sibling's age (in years)?

____

*

What is your **second oldest** sibling's age (in years)?

____

*

What is your **third oldest** sibling's age (in years)?

____

*

What is your **youngest** sibling's age (in years)?

____

Page Break

What is your **oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your **second oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your **third oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your **youngest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

Page Break

Since the start of the caregiving process with your sibling, please indicate how close or far your **oldest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **second oldest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My second oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **third oldest** sibling lives from your parent’s residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My third oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **youngest** sibling lives from your parent’s residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My youngest sibling lives: (1)	○	○	○	○	○	○	○

End of Block: Four Siblings Block

Start of Block: Predictors

Although the sky is normally blue, for this question we want you to select the answer choice "black." What color is the sky normally?

○ Blue (1)

○ Black (2)

○ Green (3)

Directions: We would like you to reflect on YOUR and YOUR SIBLING(S)' RELATIONSHIPS with YOUR PARENT and "OTHER" PARENT during CHILDHOOD as you respond to the following statements/questions.

For reference, CHILDHOOD = infancy to 18 years of age.

Thinking about the relationship YOU held with YOUR PARENT during CHILDHOOD, please select the best answer choice that represents your relationship:

	Sibling(s) was usually favored (1)	Sibling(s) was sometimes favored (2)	Neither sibling(s) or I were favored (3)	I was sometimes favored (4)	I was usually favored (5)
During childhood, do you think your parent favored your sibling(s) or you more? (1)	○	○	○	○	○
During childhood, do you think your parent supported your sibling(s) or you more? (2)	○	○	○	○	○
During childhood, do you think your parent was closer to your sibling(s) or you? (3)	○	○	○	○	○

Now, in thinking about the relationship YOU held with YOUR "OTHER" PARENT during CHILDHOOD, please select the best answer choice that represents your relationship:

****If you come from a family with only one parent, please select the same answer choices as you did for the previous questions.**

	Sibling(s) was usually favored (1)	Sibling(s) was sometimes favored (2)	Neither my sibling(s) or I were favored (3)	I was sometimes favored (4)	I was usually favored (5)
During childhood, do you think your "OTHER" parent favored your sibling(s) or you more? (1)	○	○	○	○	○
During childhood, do you think your "OTHER" parent supported your sibling(s) or you more? (2)	○	○	○	○	○
During childhood, do you think your "OTHER" parent was closer to your sibling(s) or you? (3)	○	○	○	○	○

Page Break

Directions: Now, we would like you to reflect on YOUR RELATIONSHIP with YOUR SIBLING(S) during CHILDHOOD.

For reference, CHILDHOOD = infancy to 18 years of age.

Specifically, we’d like you to think about ANY MOMENTS in CHILDHOOD with YOUR SIBLING(S) where you might have had CONFLICT.

Please indicate how often you think of or feel sentiments in the following statements:

	Not at all (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)
I randomly think about times during childhood when my sibling(s) devalued me (1)	○	○	○	○	○
Any reminders from childhood bring back feelings about when my sibling(s) hurt me unexpectedly (2)	○	○	○	○	○
I dream/think about when my sibling(s) made me feel bad during childhood (3)	○	○	○	○	○
I try not to think of how my sibling(s) have treated me poorly during childhood (4)	○	○	○	○	○
I try not to think about when my sibling(s) verbally attacked me during childhood (5)	○	○	○	○	○

I try to remove bad experiences with my sibling(s) during childhood from my memory (6)	○	○	○	○	○

Please indicate the degree to which you agree or disagree with the following statements:

	Strongly disagree (1)	somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
During childhood, I usually took any criticism from my sibling(s) personally (1)	○	○	○	○	○
In childhood, arguments with my sibling(s) were a very personal thing for me (2)	○	○	○	○	○
During childhood, it really hurt my feelings to be criticized by my sibling(s) (3)	○	○	○	○	○
In childhood, I often felt my sibling(s) tried hard to make sure that I lose during conflict (4)	○	○	○	○	○
During childhood, conflict with sibling(s) left me feeling offended (5)	○	○	○	○	○
In childhood, I felt my sibling(s) often attacked me personally (6)	○	○	○	○	○

During childhood, I often felt stressed when there were a lot of arguments with sibling(s) (7)	○	○	○	○	○
In childhood, conflicts with my sibling(s) were not stressful for me (8)	○	○	○	○	○
Stressful discussions with my sibling(s) during childhood made my stomach hurt (9)	○	○	○	○	○

Please indicate the degree to which you agree or disagree with the following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree or agree (3)	Somewhat agree (4)	Strongly agree (5)
I remember feeling very close to my sibling(s) when we were children (1)	○	○	○	○	○
My sibling(s) and I often helped each other as children (2)	○	○	○	○	○
I talked to my sibling(s) about my problems when we were children (3)	○	○	○	○	○
My sibling(s) knew almost everything about me when we were children (4)	○	○	○	○	○

Page Break

Directions: Now, we would like you to reflect on YOUR RELATIONSHIP with both YOUR SIBLING(S) and PARENT(S) during CHILDHOOD.

For reference, CHILDHOOD = infancy to 18 years of age. FAMILY = your sibling(s) and parent(s) who are involved with you in the caregiving process.

Focusing on your memories from CHILDHOOD, please indicate the degree to which you agree or disagree with the following statements about your family:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
During childhood, doing things as a family was difficulty because we misunderstood each other (1)	○	○	○	○	○
In times of crisis during childhood, my family and I turned to each other for support (2)	○	○	○	○	○
During childhood, my family and I could not talk to each other about the sadness we felt (3)	○	○	○	○	○
In childhood, individuals were accepted for who they are by my family (4)	○	○	○	○	○
My family and I avoided discussing our fears and concerns with each other during childhood (5)	○	○	○	○	○
During childhood, my family and I expressed our feelings to each other (6)	○	○	○	○	○

There were lots of bad feelings in the family toward one another during childhood (7)	○	○	○	○	○
During childhood, my family and I felt accepted for what we were by each other (8)	○	○	○	○	○
Making decisions together was a problem for my family and I during childhood (9)	○	○	○	○	○
During childhood, my family and I were able to make decisions about how to solve problems (10)	○	○	○	○	○
During childhood, my family and I did not get along well together (11)	○	○	○	○	○
My family and I confided in each other during childhood (12)	○	○	○	○	○

End of Block: Predictors

Start of Block: Mediator

Directions: Next, we would like for you to reflect on YOUR CURRENT CAREGIVING SITUATION with YOUR SIBLING(S). Think about the process of providing care or caregiving with your sibling(s) for your parent with illness (NOT the other parent).

For reference, “PROVIDE CARE” or “CAREGIVING” means many things, which include, but are not limited to:
(1) driving your parent to the hospital
(2) picking up your parent’s medicine from the pharmacy and/or taking them to the doctor
(3) giving your parent medicine in a timely manner
(4) doing chores for your parents (such as cooking, cleaning, and shopping for them etc.)
(5) bathing or giving a shower to your parent
(6) talking/listening to your parent to offer comfort or support
(7) offering advice to help them make important decisions
(8) offering assistance with financial decisions and bills
(9) other types of care

Please indicate the degree to which you agree or disagree with the following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
My sibling(s) and I are a team when it comes to managing the caregiving needs of our parent (1)	○	○	○	○	○
My sibling(s) and I view the stress of providing care to our parent in a unified way (2)	○	○	○	○	○
When we are unsure about caregiving stress, my sibling(s) and I do things together to help manage the stress (3)	○	○	○	○	○
My sibling(s) and I attempt to come up with solutions together when providing care to our parent (4)	○	○	○	○	○
My sibling(s) and I talk as a team about taking responsibility for our parent's caregiving needs (5)	○	○	○	○	○

My sibling(s) and I come together to try and organize our parent's daily life (6)	○	○	○	○	○
My sibling(s) and I join forces together to tackle our financial uncertainty tied to providing care for our parent (7)	○	○	○	○	○
My sibling(s) and I try and come together to help each other out when we are unsure about caregiving challenges (8)	○	○	○	○	○
I feel unified with my sibling(s) in terms of providing care for our parent (9)	○	○	○	○	○
My sibling(s) and I work together through our stress of providing care for our parent (10)	○	○	○	○	○

There is a feeling that my sibling(s) and I are going to be stronger as a result of working through the difficulties of caregiving together (11)	○	○	○	○	○
My sibling(s) and I brainstorm different solutions as a team when providing care to our parent (12)	○	○	○	○	○

Page Break

When thinking about the challenges of providing care to my parent, I see it as:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
My problem to manage the caregiving stress (1)	○	○	○	○	○
My sibling(s)' problem to manage the caregiving stress (2)	○	○	○	○	○
Our (my sibling(s) and my) problem to manage the caregiving stress (3)	○	○	○	○	○

When thinking about the difficulties of providing care to my parent, I act upon the caregiving duties as if it is:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
My problem to manage the caregiving stress (1)	○	○	○	○	○
My sibling(s)' problem to manage the caregiving stress (2)	○	○	○	○	○
Our (my sibling(s) and my) problem to manage the caregiving stress (3)	○	○	○	○	○

End of Block: Mediator

Start of Block: Outcomes

Directions: Now, we would like you to reflect on YOUR CURRENT FEELINGS.

Please indicate your level of agreement or disagreement with the following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I lead a purposeful and meaningful life (1)	○	○	○	○	○
My social relationships are supportive and rewarding (2)	○	○	○	○	○
I am engaged and interested in my daily activities (3)	○	○	○	○	○
I actively contribute to the happiness and well-being of others (4)	○	○	○	○	○
I am competent and capable of the activities that are important to me (5)	○	○	○	○	○
I am a good person and live a good life (6)	○	○	○	○	○
I am optimistic about my future (7)	○	○	○	○	○
People in my life respect me (8)	○	○	○	○	○

Page Break

Please indicate how often have you thought of or felt similar sentiments to the following statements:

“*Since I started caregiving for my parent with an illness*…”

	Never (1)	Rarely (2)	About half the time (3)	Often (4)	Almost always (5)
I have felt unappreciated by my sibling(s) (1)	○	○	○	○	○
I have had my needs come second to my sibling(s) (2)	○	○	○	○	○
I have not had the same social life as before (3)	○	○	○	○	○
My financial status changed for the worse (4)	○	○	○	○	○
I feel the demands of caregiving might have lessened if my sibling(s) helped more (5)	○	○	○	○	○
I have had to give up on plans I made for the future (6)	○	○	○	○	○
I have felt primarily responsible for taking care of our parent (7)	○	○	○	○	○
It has been difficult to go anywhere for fun (8)	○	○	○	○	○

I resent my sibling(s) for how much the care for my parents fall on my shoulders (9)	○	○	○	○	○
I have felt things take longer than before (10)	○	○	○	○	○

Page Break

Please indicate the degree to which you agree or disagree with the following statements:

"*Since I started caregiving for my parent with an illness…*"

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I can feel myself getting angry around my parent and sibling(s) (1)	○	○	○	○	○
My parent and sibling(s) are highly dependent on me for caregiving tasks (2)	○	○	○	○	○
I do not have enough time for myself (3)	○	○	○	○	○
I feel like I have lost control over my life (4)	○	○	○	○	○
My health has suffered (5)	○	○	○	○	○

End of Block: Outcomes

Start of Block: Moderators

1 + 1 is always 2, but for this question we want you to select the answer choice "3." What is 1 + 1?

○ 1 (1)

○ 2 (2)

○ 3 (3)

Directions: Now, we would like you to reflect on YOUR FEELINGS AND FAMILY RESOURCES WHEN YOU FIRST STARTED PROVIDING CARE to your parent with your sibling(s).

In thinking about how you felt RIGHT BEFORE YOU STARTED PROVIDING CARE to your parent, please indicate the degree to which you agree or disagree with the following statements:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I felt a sense of obligation to help my parent (1)	○	○	○	○	○
It was my duty to provide care to my parent (2)	○	○	○	○	○
I felt that I should do my part in providing care to my parent (3)	○	○	○	○	○
I felt that I am the one in the family who should help my parent (4)	○	○	○	○	○
I was raised to believe I should help my parent (5)	○	○	○	○	○
I would feel guilty if I did not help my parent (6)	○	○	○	○	○
I would feel ashamed if I did not provide care to my parent (7)	○	○	○	○	○

Page Break

In thinking about your resources RIGHT BEFORE YOU STARTED PROVIDING CARE to your parent with your sibling(s), please indicated the degree to which these resources were available to you and your family:

	Not available at all (1)	Rarely available (2)	Sometimes available (3)	Available (4)	Extremely available (5)
Medical insurance for parent (1)	○	○	○	○	○
Help from healthcare providers (e.g., visitation from nurses, social workers, etc.) (2)	○	○	○	○	○
Stable family income (from you, your sibling(s), and/or your "other" parent) (3)	○	○	○	○	○
Stable emergency savings (from you, your sibling(s), and/or your "other" parent) (4)	○	○	○	○	○
Adequate understanding of parent's medical illness (5)	○	○	○	○	○
Adequate understanding of parent's caregiving needs (6)	○	○	○	○	○
Support from family/extended family (e.g., spouse, children, uncle/aunts, cousins, etc.) (7)	○	○	○	○	○

Support from social network (e.g., friends, coworkers, bosses, etc.) (8)	○	○	○	○	○
Strong faith in religion (9)	○	○	○	○	○
Help from religious groups/leaders (e.g., local mosques, churches, temples, etc.) (10)	○	○	○	○	○

End of Block: Moderators

Start of Block: Control

Please indicate the degree of agreement or disagreement with the following statements in general:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I rely on myself most of the time (1)	○	○	○	○	○
I often do "my own thing" (2)	○	○	○	○	○
It is important that I do my job better than others (3)	○	○	○	○	○
When another person does better than I do, I get tense (4)	○	○	○	○	○

Please indicate the degree of agreement or disagreement with the following statements in general:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Pleasure is spending time with others (1)	○	○	○	○	○
I feel good when I cooperate with others (2)	○	○	○	○	○
Family members should stick together, no matter what sacrifices are required (3)	○	○	○	○	○
It is my duty to take care of my family, even when I have to sacrifice what I want (4)	○	○	○	○	○

Page Break

Directions: Now we would like for you to reflect on your relationship with sibling(s) in ADULTHOOD.

ADULTHOOD = 18 years to present

Please indicate the degree to which you agree or disagree with the following statements.

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree or agree (3)	Somewhat agree (4)	Strongly agree (5)
I enjoy my relationship with my sibling(s) (1)	○	○	○	○	○
My sibling(s) talk to me about personal problems (2)	○	○	○	○	○
My sibling(s) and I are NOT very close (3)	○	○	○	○	○
My sibling(s) and I share secrets with each other (4)	○	○	○	○	○

Page Break

Directions: Now we would like for you to reflect on your relationship with your parent (who you primarily provide care for) in ADULTHOOD.

ADULTHOOD = 18 years to present

In thinking about your relationship as a whole, please indicate the degree to which you agree or disagree with the following statements.

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree or agree (3)	Somewhat agree (4)	Strongly agree (5)
I wish my parent well (1)	○	○	○	○	○
I think favorably of my parent (2)	○	○	○	○	○
I forgive my parent (3)	○	○	○	○	○
I disapprove of my parent (4)	○	○	○	○	○

Page Break

Directions: Now we would like you to reflect on your relationship with your family (your sibling(s) and parent(s) involved in the caregiving process).

Please indicate the degree to which you agree or disagree with the following statements in general.

	Strongly disagree (1)	Somewhat disagree (2)	Neither disagree or agree (3)	Somewhat agree (4)	Strongly agree (5)
I can tell my family almost anything (1)	○	○	○	○	○
In our family, we often talk about our feelings (2)	○	○	○	○	○
My family and I usually tell each other what we are thinking (3)	○	○	○	○	○
In our family, we are very open about our emotions (4)	○	○	○	○	○

End of Block: Control

Start of Block: Three Siblings Block

*

Directions: please answer the questions in order from oldest sibling to youngest sibling.

What is your **oldest** sibling's age (in years)?

____

*

What is your **second oldest** sibling's age (in years)?

____

*

What is your **youngest** sibling's age (in years)?

____

Page Break

What is your **oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ________________________________

○ Prefer not to say (6)

What is your **second oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ________________________________

○ Prefer not to say (6)

What is your **youngest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

Page Break

Since the start of the caregiving process with your sibling, please indicate how close or far your **oldest** sibling lives from your parent’s residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **second oldest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My second oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **youngest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My youngest sibling lives: (1)	○	○	○	○	○	○	○

End of Block: Three Siblings Block

Start of Block: Two Siblings Block

*

Directions: please answer the questions in order from oldest sibling to youngest sibling.

What is your **oldest** sibling's age (in years)?

____

*

What is your **youngest** sibling's age (in years)?

____

Page Break

What is your **oldest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

What is your **youngest** sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

Page Break

Since the start of the caregiving process with your sibling, please indicate how close or far your **oldest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My oldest sibling lives: (1)	○	○	○	○	○	○	○

Since the start of the caregiving process with your sibling, please indicate how close or far your **youngest** sibling lives from your parent's residence/home by DRIVING DISTANCE/TIME.

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My youngest sibling lives: (1)	○	○	○	○	○	○	○

End of Block: Two Siblings Block

Start of Block: One Sibling Block

*

What is your sibling's age (in years)?

____

What is your sibling's gender?

○ Man (1)

○ Woman (2)

○ Non-binary (those who don't identify as man or woman) (3)

○ Transgender (those transitioning from their assigned gender to the opposite) (4)

○ Other (please specify) (5) ____

○ Prefer not to say (6)

Since the start of the caregiving process with your sibling, please indicate how close or far your sibling lives from your parent's residence/home by **DRIVING DISTANCE/TIME.**

	with my parent (1)	30 mins from my parent (2)	1 hour from my parent (3)	1 hour and 30 mins from my parent (4)	2 hours from my parent (5)	2 hours and 30 mins from my parent (6)	More than 3 hours from my parents (7)
My sibling lives: (1)	○	○	○	○	○	○	○

End of Block: One Sibling Block

Start of Block: Three Children Block

*

Directions: please answer the questions in order from oldest child to youngest child.

What is your **oldest** child's age (in years)?

____

---

*

What is your **second oldest** child's age (in years)?

____

What is your **youngest** child's age (in years)?

____

Do your children live with you at your residence/home?

○ Yes, all my children live with me. (1)

○ Some of my children live with me. (2)

○ None of my children live with me. (3)

End of Block: Three Children Block

Start of Block: Two Children Block

Directions: please answer the questions in order from oldest child to youngest child.

What is your **oldest** child's age (in years)?

____

What is your **youngest** child's age (in years)?

____

Do your children live with you at your residence/home?

○ Yes, all my children live with me. (1)

○ Some of my children live with me. (2)

○ None of my children live with me. (3)

End of Block: Two Children Block

Start of Block: One Child Block

*

What is your child's age (in years)?

____

Does your child live with you at your residence/home?

○ Yes, my child lives with me. (1)

○ No, my child does not live with me. (2)

End of Block: One Child Block

Appendix B: Recruitment Flyer for Study Two

Participants Needed

for

Family History and Caregiving Study

We encourage people from low-income families or families dealing with financial hardship to participate!

PURPOSE OF STUDY

- Focus on how adult caregivers work together with their sibling(s) to provide care for their parent with a medical illness.
- We want to know how family history shapes the caregiving process.

Task: You will do an (audio/video recorded) interview with a researcher for about 60-75 mins

What does it mean to "provide care"?

(1) driving parent to hospital,
(2) giving medicine to parent,
(3) doing chores for parent,
(4) bathing/showering parent,
(5) talking/listening to parent,
(6) offering advice
(7) assisting with financial decisions

QUALIFICATIONS

☑ Are 30 years of age or older
☑ Have at least one sibling (or more)
☑ Have a parent with a medical condition
☑ Live with parent (or parent lives with you) always or occasionally
☑ Provide care for your parent with the help of your sibling(s)

Participants must fulfill ALL qualifications

Defining "Family History"

Experiences from childhood involving:
(1) parental favoritism
(2) unresolved hurt feelings
(3) family functioning.

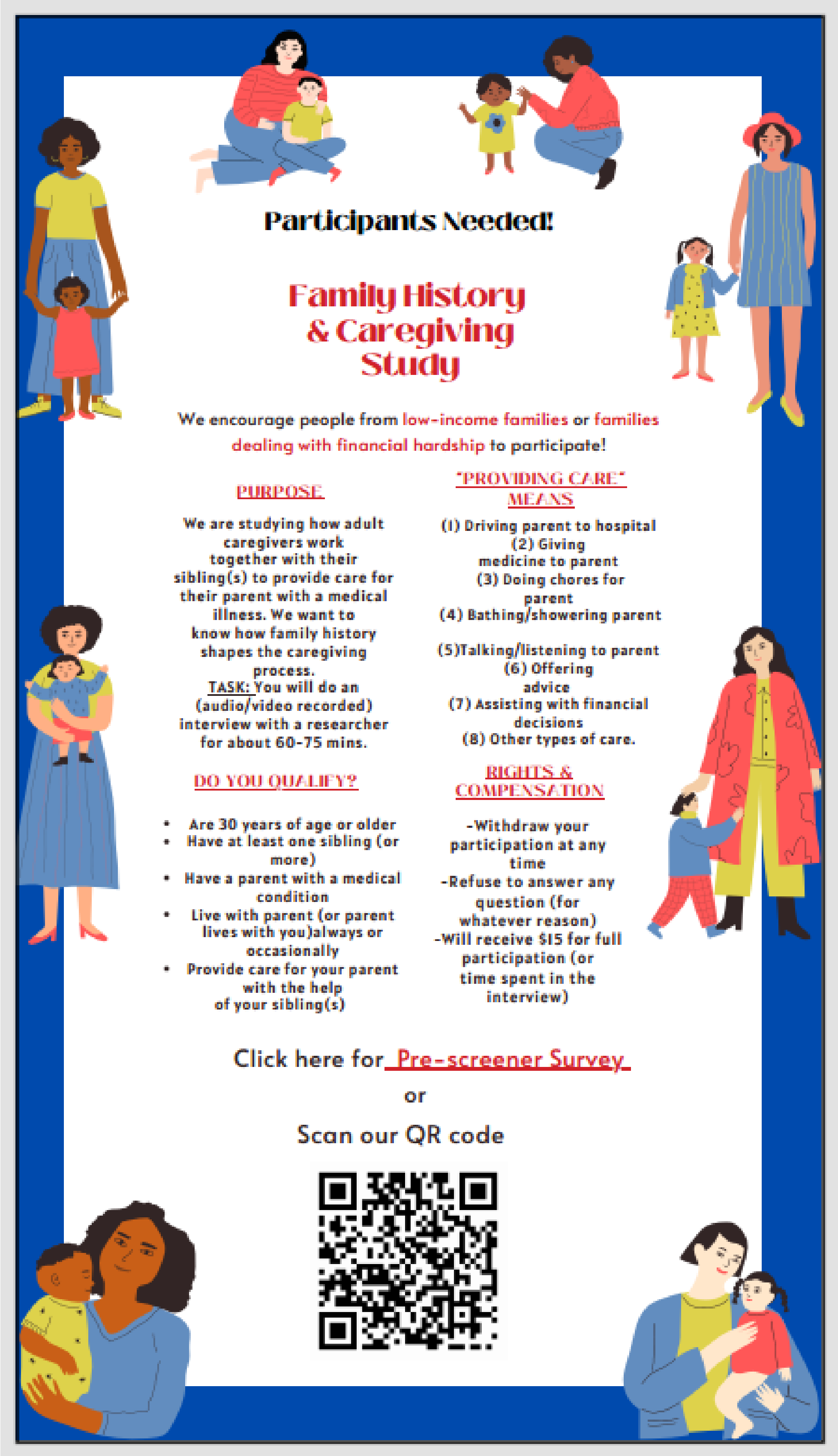
RIGHT & BENEFITS

- Withdraw your participation at any time
- Refuse to answer any question (for whatever reason)

Will receive $15 for full participation (or time spent in the interview)

If you qualify and are interested in participating in the study, please scan the QR code below.

Or click **here** for survey. Thank you!



Participants Needed!

Family History & Caregiving Study

We encourage people from low-income families or families dealing with financial hardship to participate!

PURPOSE

We are studying how adult caregivers work together with their sibling(s) to provide care for their parent with a medical illness. We want to know how family history shapes the caregiving process.

TASK: You will do an (audio/video recorded) interview with a researcher for about 60-75 mins.

DO YOU QUALIFY?

- Are 30 years of age or older
- Have at least one sibling (or more)
- Have a parent with a medical condition
- Live with parent (or parent lives with you)always or occasionally
- Provide care for your parent with the help of your sibling(s)

"PROVIDING CARE" MEANS

(1) Driving parent to hospital
(2) Giving medicine to parent
(3) Doing chores for parent
(4) Bathing/showering parent
(5)Talking/listening to parent
(6) Offering advice
(7) Assisting with financial decisions
(8) Other types of care.

RIGHTS & COMPENSATION

-Withdraw your participation at any time
-Refuse to answer any question (for whatever reason)
-Will receive $15 for full participation (or time spent in the interview)

Click here for Pre-screener Survey

or

Scan our QR code

Appendix C: Tables

Table 1.

Descriptive Statistics for All Latent Variables in the Structural Equation Model.

	M	*SD*	Omega	*α*	Range	*N*
PDF	3.14	1.07	.907	N/A	1 - 5	776
UHF	2.65	1.13	.943	N/A	1 - 5	776
FF	3.32	1.09	.959	N/A	1 - 5	775
CC	3.29	1.29	.978	N/A	1 - 5	776
BUR	2.75	1.13	.864	N/A	1 - 5	775
FL	4.04	.82	.905	N/A	1 - 5	776
RES	2.88	1.06	.922	N/A	1 - 5	775
FO	4.52	.63	.842	N/A	1 - 5	775
FR (2 items)	3.02	1.11	N/A	.763	1 - 5	775
COL (2 items)	4.09	.88	N/A	.733	1 - 5	774
RP	3.92	1.93	N/A	N/A	1 - 7	776

Note. PDF = Parental favoritism toward siblings, UHF = Unresolved hurt feelings, FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, Res = Resentment, FO = Felt obligation, FR = Family resources, COL = Collectivism, RP = Residential proximity.

Table 2.

Pearson Correlations for All Latent Variables in the Structural Equation Model.

	PDF	UHF	FF	CC	BUR	FL	RES	FO	FR	COL
UHF	.132***									
FF	-.291***	-.486***								
CC	-.119***	-.220***	.505***							
BUR	.180***	.475***	-.548***	-.417***						
FL	-.139***	-.230***	.435***	.382***	-.484***					
RES	.198***	.484***	-.600***	-.554***	.813***	-.448***				
FO	.002	-.014	.128***	.070	-.012	.202***	-.010			
FR	-.106**	-.166***	.399***	.483***	-.396***	.412***	-.432***	-.008		

COL	-.085*	-.099**	.341***	.323***	-.206***	.343***	-.214***	.409***	.260***	
RP	-.104**	.001	.015	-.161***	-.019	.031	.015	-.062	.037	.005

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. PDF = Parental favoritism toward siblings, UHF = Unresolved hurt feelings, FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment, FO = Felt obligation, FR = Family resources, COL = Collectivism, RP = Residential proximity. Correlations are standardized estimates.

Table 3.

Direct Effects of Latent Variables in the Parental (Dis)Favoritism Model

	β	S.E.	Lower	Upper
PDF > CC	.108*	.046	.032	.183
CC > BUR	-.093**	.029	-.141	-.046
CC > FL	.118**	.034	.062	.175
CC > RES	-.246***	.030	-.295	-.197
PDF > BUR	.082*	.034	.026	.137
PDF > FL	-.060	.039	-.124	.003
PDF > RES	.085*	.034	.030	.141

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. PDF = Parental favoritism toward siblings, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates.

Table 4.

Direct Effects of Latent Variables in the Family Functioning Model

	β	S.E.	Lower	Upper
FF > CC	.838***	.075	.716	.961
CC > BUR	-.093**	.029	-.141	-.046
CC > FL	.118**	.034	.062	.175
CC > RES	-.246***	.030	-.295	-.197
FF > BUR	-.097	.065	-.204	.011
FF > FL	.188*	.079	.059	.318
FF > RES	-.122	.068	-.234	-.010

Note. * p < .05; ** p < .01; *** p < .001. FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates.

Table 5.

Direct Effects of Latent Variables in the Unresolved Hurt Feelings Model

	β	S.E.	Lower	Upper
UHF > CC	.139*	.059	.043	.236
CC > BUR	-.093**	.029	-.141	-.046
CC > FL	.118**	.034	.062	.175
CC > RES	-.246***	.030	-.295	-.197
UHF > BUR	.309***	.050	.226	.392
UHF > FL	-.040	.048	-.120	.039
UHF > RES	.336***	.045	.262	.409

Note. * p < .05; ** p < .01; *** p < .001. UHF = Unresolved hurt feelings, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates.

Table 6.

Indirect and Total Effects of Mediational Path in the Parental (Dis)Favoritism Model

	β	S.E.	Lower	Upper
PDF > CC > BUR (indirect)	-.010	.005	-.019	-.001
PDF > CC > BUR (total)	**.072***	**.034**	**.015**	**.128**
PDF > CC > FL (indirect)	.013	.007	.002	.024
PDF > CC > FL (total)	-.048	.039	-.112	.017
PDF > CC > RES (indirect)	**-.026***	**.012**	**-.046**	**-.007**
PDF > CC > RES (total)	.059	.037	-.002	.120

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. All variables were measured on a 1 – 5 response scale. PDF = Parental favoritism toward siblings, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates. Significant mediational paths are bolded.

Table 7.

Indirect and Total Effects of Mediational Path in the Family Functioning Model

	β	S.E.	Lower	Upper
FF > CC > BUR (indirect)	**-.078****	**.025**	**-.119**	**-.038**
FF > CC > BUR (total)	**-.175****	**.067**	**-.285**	**-.065**
FF > CC > FL (indirect)	**.099*****	**.030**	**.049**	**.149**
FF > CC > FL (total)	**.287*****	**.080**	**.156**	**.419**
FF > CC > RES (indirect)	**-.206*****	**.030**	**-.256**	**-.156**
FF > CC > RES (total)	-.023	.077	-.149	.103

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. All variables were measured on a 1 – 5 response scale. FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates. Significant mediational paths are bolded.

Table 8.

Indirect and Total Effects of Mediational Path in the Unresolved Hurt Feelings Model

	β	S.E.	Lower	Upper
UHF > CC > BUR (indirect)	**-.013***	**.006**	**-.023**	**-.003**
UHF > CC > BUR (total)	**.296*****	**.050**	**.214**	**.378**
UHF > CC > FL (indirect)	**.016***	**.008**	**.003**	**.030**
UHF > CC > FL (total)	-.024	.049	-.104	.056
UHF > CC > RES (indirect)	**-.034***	**.015**	**-.058**	**-.010**
UHF > CC > RES (total)	**.301*****	**.047**	**.224**	**.378**

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. All variables were measured on a 1 – 5 response scale. UHF = Unresolved hurt feelings, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment. Correlations are unstandardized estimates. Significant mediational paths are bolded.

Table 9.

CFA Results for the Measurement Structure of the Hypothesized Model

	χ^2	*df*	RMSEA	CFI	TLI	SRMR
Model 1	14,321.926***	3,449	.064	.801	.794	.063
Model 2	7,179.199***	2,043	.057	.886	.880	.055

Model 3	7,049.572***	1,979	.057	.886	.881	.056
Model 4	1,086.377***	341	.053	.962	.955	.038

Note. *** *p* < .001. For Model 1, results are based on conducting a CFA on all items from the hypothesized model for each scale used to measure study variables (see “Measures” in chapter two and Table 10 for factor loadings). For Model 2, all items with a low factor loading (below .65; Devellis, 2016) from each scale in the first model were dropped and, therefore, results are based on conducting a CFA on the remaining items from Model 1. Model 3 results are likewise based on the same strategy used to conduct the CFA in the second model. For Model 4, scales with eight or more items were converted into three parcel-scales and, therefore, results are based on conducting a CFA with parceled scales.

Table 10.

CFA Factor Loading Estimates for Model 1

Measurement Item	Estimate
PDF1	.868
PDF2	.857
PDF3	.846
PDF4	.510

PDF5	.542
PDF6	.503
RUM1	.694
RUM2	.720
RUM3	.636
RUM4	.622
RUM5	.610
RUM6	.629
TCP1	.816
TCP2	.836
TCP3	.836
TCP4	.827
TCP5	.876
TCP6	.884
TCP7	.847
TCP8	.244
TCP9	.687

FF1	.763
FF2	.735
FF3	.750
FF4	.774
FF5	.753
FF6	.761
FF7	.756
FF8	.841
FF9	.769
FF10	.821
FF11	.803
FF12	.779
CC1	.884
CC2	.884
CC3	.848
CC4	.879
CC5	.915

CC6	893
CC7	.860
CC8	.901
CC9	.913
CC10	.935
CC11	.895
CC12	.896
FL1	.852
FL2	.794
FL3	.811
FL4	.672
FL5	.664
FL6	.805
FL7	.804
FL8	.769
RES1	.767
RES2	.724

RES3	.716
RES4	.700
RES5	.799
RES6	.768
RES7	.631
RES8	.790
RES9	.755
RES10	.766
BUR1	.651
BUR2	.581
BUR3	.811
BUR4	.869
BUR5	.784
FO1	.724
FO2	.799
FO3	.823
FO4	.484

FO5	.566
FO6	.677
FO7	.661
FR1	.405
FR2	.526
FR3	.633
FR4	.668
FR5	.500
FR6	.506
FR7	.722
FR8	.678
FR9	.448
FR10	.557

Note. All parameter estimates are significant at $p < .001$. PDF = Parental favoritism toward siblings, RUM = Rumination, TCP = Taking conflict personally, FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment, FO = Felt obligation, FR = Family resources.

Table 11.

CFA Factor Loading Estimates for Model 2

Measurement Item	Estimate
PDF1	.900
PDF2	.844
PDF3	.876
RUM1	.651
RUM2	.675
TCP1	.837
TCP2	.857
TCP3	.856
TCP4	.832
TCP5	.891
TCP6	.881
TCP7	.850
TCP9	.682
FF1	.763
FF2	.735

FF3	.750
FF4	.774
FF5	.753
FF6	.761
FF7	.755
FF8	.841
FF9	.769
FF10	.822
FF11	.803
FF12	.779
CC1	.884
CC2	.884
CC3	.848
CC4	.879
CC5	.915
CC6	.893
CC7	.860

CC8	.901
CC9	.913
CC10	.935
CC11	.895
CC12	.897
FL1	.853
FL2	.794
FL3	.812
FL4	.671
FL5	.664
FL6	.804
FL7	.803
FL8	.769
RES1	.767
RES2	.722
RES3	.721
RES4	.711

RES5	.785
RES6	.773
RES8	.793
RES9	.754
RES10	.767
BUR1	.651
BUR3	.802
BUR4	.882
BUR5	.791
FO1	.728
FO2	.789
FO3	.833
FO6	.685
FO7	.662
FR4	.583
FR7	.830
FR8	.739

Note. All parameter estimates are significant at $p < .001$. PDF = Parental favoritism toward siblings, RUM = Rumination, TCP = Taking conflict personally, FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment, FO = Felt obligation, FR = Family resources.

Table 12.

CFA Factor Loading Estimates for Model 3

Measurement Item	Estimate
PDF1	.900
PDF2	.844
PDF3	.876
RUM1	.651
RUM2	.675
TCP1	.837
TCP2	.856
TCP3	.856
TCP4	.832
TCP5	.891

TCP6	.881
TCP7	.850
TCP9	.682
FF1	.763
FF2	.735
FF3	.750
FF4	.774
FF5	.753
FF6	.761
FF7	.755
FF8	.841
FF9	.769
FF10	.822
FF11	.803
FF12	.779
CC1	.884
CC2	.884

CC3	.848
CC4	.879
CC5	.915
CC6	.893
CC7	.860
CC8	.901
CC9	.913
CC10	.935
CC11	.895
CC12	.896
FL1	.853
FL2	.794
FL3	.812
FL4	.670
FL5	.664
FL6	.804
FL7	.803

FL8	.768
RES1	.764
RES2	.722
RES3	.721
RES4	.711
RES5	.785
RES6	.773
RES8	.793
RES9	.754
RES10	.767
BUR1	.651
BUR3	.801
BUR4	.882
BUR5	.791
FO1	.729
FO2	.789
FO3	.831

FO6	.686
FO7	.663
FR7	.858
FR8	.719

Note. All parameter estimates are significant at $p < .001$. PDF = Parental favoritism toward siblings, RUM = Rumination, TCP = Taking conflict personally, FF = Family functioning, CC = Communal coping, BUR = Burden, FL = Flourishing, RES = Resentment, FO = Felt obligation, FR = Family resources.

Table 13.

CFA Factor Loading Estimates for Model 4

Measurement Item	Estimate
PDF1	.900
PDF2	.844
PDF3	.876
UHFp1	.899
UHFp2	.932

UHFp3	.923
FFp1	.933
FFp2	.959
FFp3	.933
CCp1	.959
CCp2	.969
CCp3	.977
FLp1	.929
FLp2	.793
FLp3	.865
RESp1	.869
RESp2	.908
RESp3	.899
BUR1	.650
BUR3	.799
BUR4	.882
BUR5	.791

FO1	.728
FO2	.789
FO3	.831
FO6	.685
FO7	.662
FR7	.859
FR8	.716

Note. All parameter estimates are significant at $p < .001$. PDF = Parental favoritism toward siblings, UHF = Unresolved hurt feelings (i.e., three parcels of remaining items from the RUM and TCP scales; see Table 12), FFp = Family functioning (i.e., three parcels of remaining items from FF scale; see Table 12), CCp = Communal coping (i.e., three parcels of remaining items from CC scale; see Table 12), BUR = Burden, FLp = Flourishing (i.e., three parcels of remaining items from FL scale; see Table 12), RESp = Resentment (i.e., three parcels of remaining items from RES scale; see Table 12), FO = Felt obligation, FR = Family resources.

Appendix D: Interview Questions for Study Two

Introduction & Thank You

Thanks so much for your willingness and interest in being part of the Family History and Caregiving Study. We really appreciate your time. As a reminder, the purpose of the study is to learn about adult caregivers' experiences with providing care to their parent (who has a medical illness) with the help of their sibling(s). We are specifically interested in learning about how your family history shapes the caregiving situation or process. The interview should take between 60 – 75 minutes.

Re-consent

Before we begin, I'd like to thank you for consenting to the study. I'd like to remind you of your rights as a participant. You can completely withdraw from the study or this interview at any point without penalty. You also have the right to decline to answer any question you do not feel comfortable answering. If you need to take a pause, feel free to let me know.

Do you have any questions for me before we begin?

Building Rapport & Current Caregiving Context

- To begin, what got you interested in participating in this study?
- Yes, family is so important! Tell me about yourself and your family as a whole.
- In what ways do you provide care for your parent with a medical illness?
- Is your other parent alive? If yes, do you also provide care for your other parent?
    - In what ways do you provide care for your other parent?
    - Does your other parent help you provide care for your parent with a medical illness?

- What is the role for each of your sibling(s) in your caregiving situation with your parent?
    - Please describe your each of your sibling’s involvement in your caregiving situation.
- How did you and your siblings decide who would primarily care for your parent?
- How do you coordinate caregiving responsibilities for your parent’s care needs?
- What is your relationship like with each of your siblings?

Transition: Thank you for sharing your current experiences with siblings in your caregiving situation. I am curious about your relationship history with your siblings. Now I’d like to ask you some questions about your relationship with your sibling, specifically during childhood. For reference, childhood refers to infancy to 18 years of age.

Family History

- To begin, how would you describe the relationships with each of your siblings during childhood?
    - How did you communicate with each of your siblings?
    - How did you approach conflict with each of your siblings?
    - What was your parents relationship like with each of your siblings?

Transition: In families with more than one child, it is common to experience parental favoritism. You may already know this, but favoritism means when one or both of your parents consistently treat you and your siblings differently. The difference in treatment can be viewed as positive, where parents complimented you more or gave you more rewards than your siblings. Or the difference in treatment can be viewed as negative, where your parents scolded or punished you much more than your siblings.

Parental Favoritism

- In thinking about your family, how, *if at all*, did your parents practice favoritism with you and your siblings during childhood?
    - If you were favored, please provide an example of how your parent favored you?
        - How did that make you feel?
        - How did that affect your relationship with each of your siblings during childhood?
    - If one or more of your siblings were favored, please provide an example of how your parent favored your siblings.
        - How did that make you feel?
        - How did that affect your relationship with each of your siblings during childhood?
    - How, if at all, has this favoritism revealed itself in adulthood?
            - In what ways is this favoritism not what it was during childhood?
                - Why do you think that is?

Communal Coping & Favoritism

Transition: Now I'd like to ask some questions about how your past experiences involving favoritism affect your current caregiving process.

- How, if at all, has favoritism during childhood affected the caregiving process now?

        - How, if at all, did favoritism from childhood affect your ability to view the challenges of caregiving as a team with your siblings?
        - How, if at all, did favoritism from childhood affect your ability to come together with your siblings to provide care for your parent?
            - How did favoritism positively affect your ability to work with your siblings?
            - How did favoritism negatively affect your ability to work with your siblings?
    - Do you have any hurt feelings toward your parents because of favoritism in childhood?

Transition: Speaking of hurt feelings, it is common in family to have your feelings hurt by siblings or hurting the feelings of your siblings.

Sources of Hurt

- In thinking about your siblings during childhood, have there been experiences where they have hurt you?
    - If yes, can you please provide a few examples of how your siblings hurt you during childhood?
        - How did this hurtful experience impact you as a person?
        - How did this hurtful experience affect your relationship with siblings?

Transition: Some hurt feelings can be resolved through discussions, where people apologize and forgive one another, but other sources of hurt can remain **unresolved** with or without discussions. Unresolved hurt means that you keep thinking about the hurtful experience from time to time.

Unresolved Hurt Feelings

- In thinking about your siblings, have there been experiences during childhood where they have hurt you and your hurt feelings are still unresolved today?
    - If yes, can you please describe the experiences that left you with unresolved hurt feelings toward your siblings?
    - Why are your hurt feelings still unresolved?
    - How have your unresolved hurt feelings affected:
        - You as a person?
        - Your communication with siblings?
        - Your relationship with siblings?
        - Your ability to work together with your siblings while providing care?
    - How, if at all, could your hurt feelings be resolved?
            - What factors would allow you to hurt less or resolve your hurt?
    - If no, why were you able to resolve those feelings of unresolved hurt?
        - What factors helped you resolve your hurt feelings?
            - Personal factors?
            - Relationship factors?
            - Cultural factors?
            - Other factors?

Communal Coping & Unresolved Hurt

Transition: Now I'd like to ask some questions about how your past experiences involving unresolved hurt affect your current caregiving process.

- How, if at all, has unresolved hurt from childhood affected the caregiving process now?
    - How, if at all, did unresolved hurt from childhood affect your ability to view the challenges of caregiving as a team with your siblings?
    - How, if at all, did unresolved hurt from childhood affect your ability to come together with your siblings to provide care for your parent?
        - How did unresolved hurt positively affect your ability to work with your siblings?
        - How did unresolved hurt negatively affect your ability to work with your siblings?
- In what ways, *if at all*, would resolving your hurt feelings toward siblings affect the caregiving process?

Transition: There may have been some experiences/thoughts that have come to your mind during this conversation that I didn’t specifically ask about.

Concluding Remarks

- What else would you like to share that you want me and others, who are also studying caregivers impacted by their relational history with siblings, to know before we wrap up?

Thank you very much for participating in this study. This has truly been a pleasure and honor to have this discussion with you. We appreciate you taking the time to share your experiences and opinions, feelings, and thoughts with us. Your insights will help us learn more about these types of conversations so that researchers can help educate and provide guidance to other families who have had their caregiving experiences impacted by their relational history.

Would you be willing to be contacted to share your thoughts with us on the study's findings (this would involve an hour or so of your time within the next 5 to 6 months)?

- ○ Yes
- ○ No

To protect your privacy and confidentiality, we will use a pseudonym to name your audio, transcript, and demographics sheet files. A pseudonym is a fake name given to participants to protect their identity from disclosure. We plan to present and publish the results of this study which may include direct quotations from your interview, but we would use the pseudonym you pick. During the transcription process, we will also remove any personally identifying information from the interview itself. What pseudonym would you like us to use?

Pseudonym: ________________________________

Appendix E: Figures

Figure 1.

Hypothesized Omnibus Model of Family History, CC, and Coping Outcomes

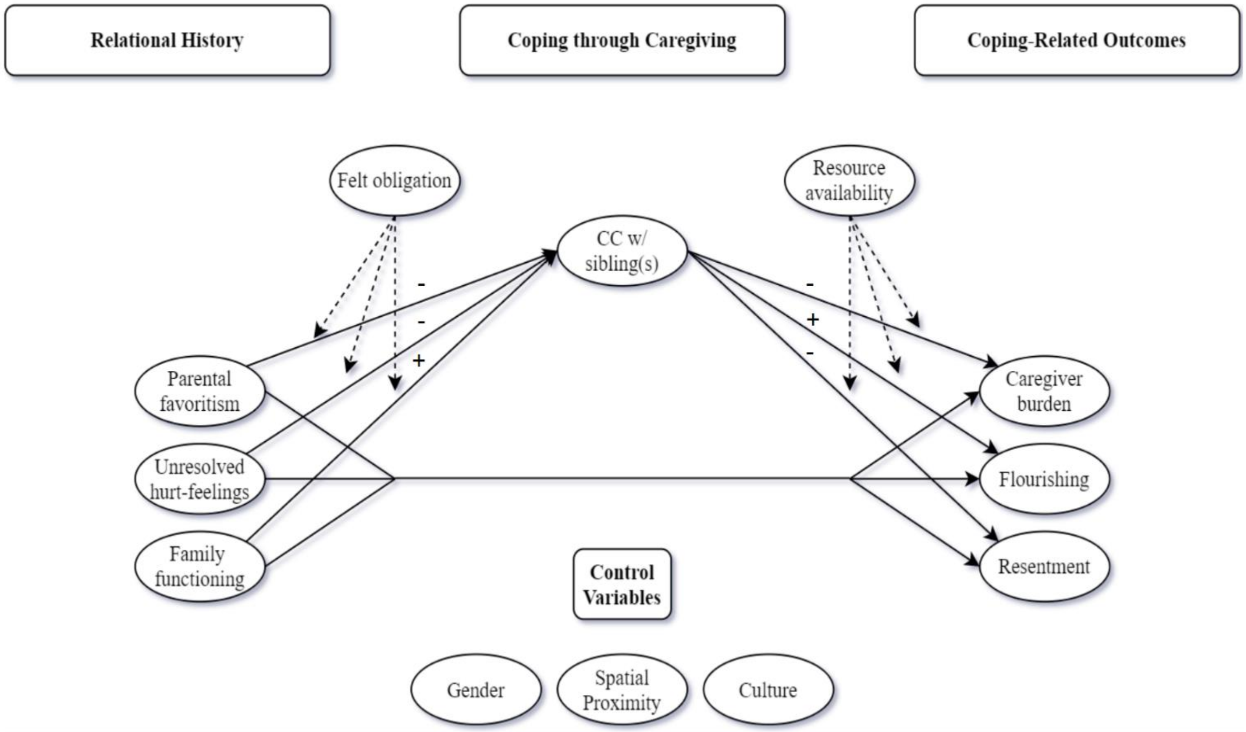


Figure 2.

Parental Favoritism Predictions in the Hypothesized Model

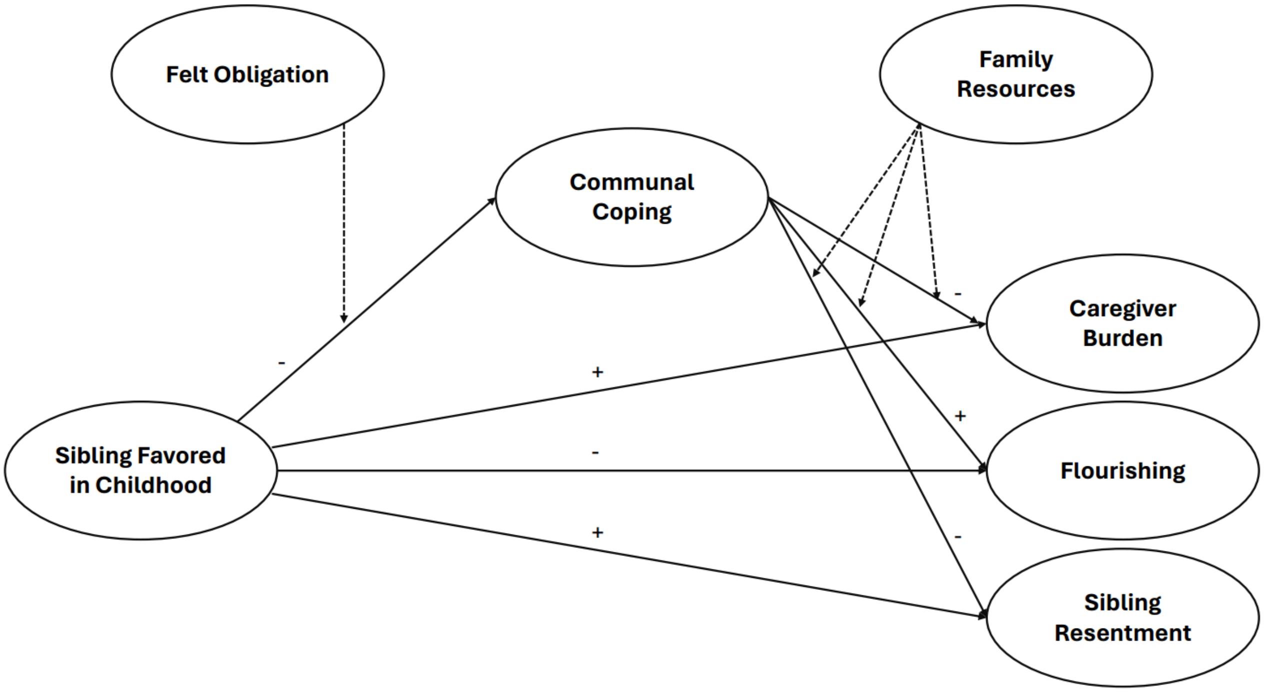


Figure 3.

Family Functioning Predictions in the Hypothesized Model

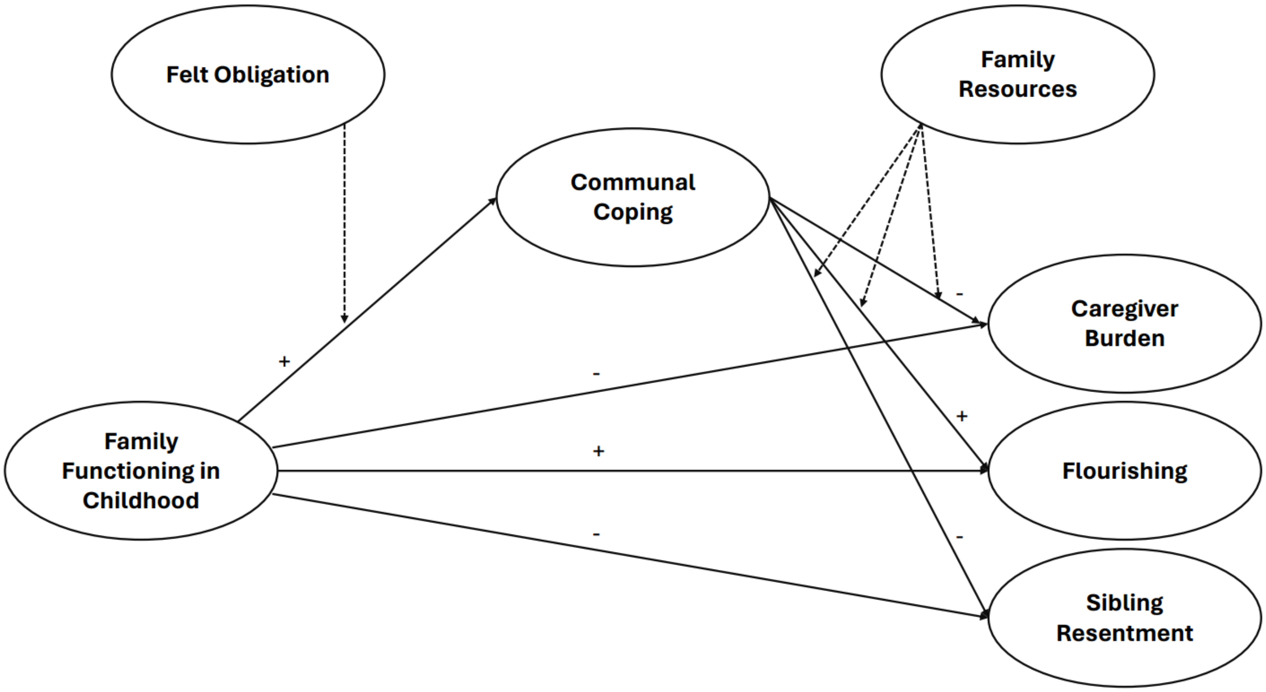


Figure 4.

Unresolved Hurt Feelings Predictions in the Hypothesized Model

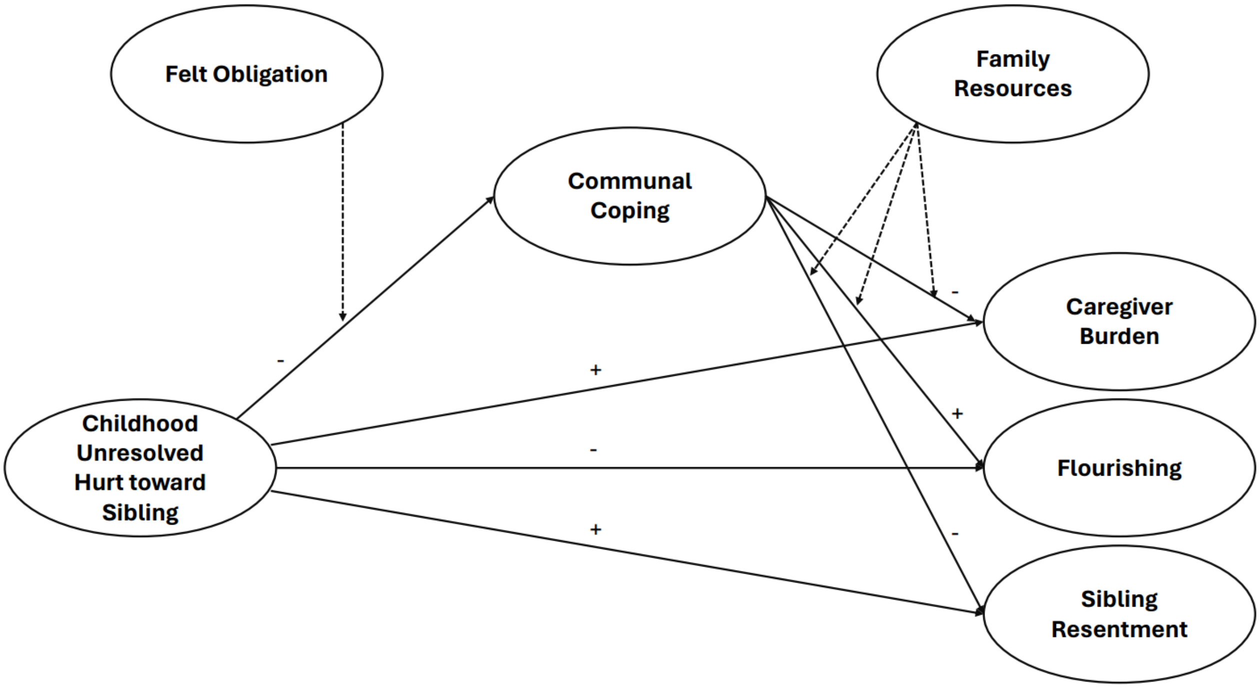
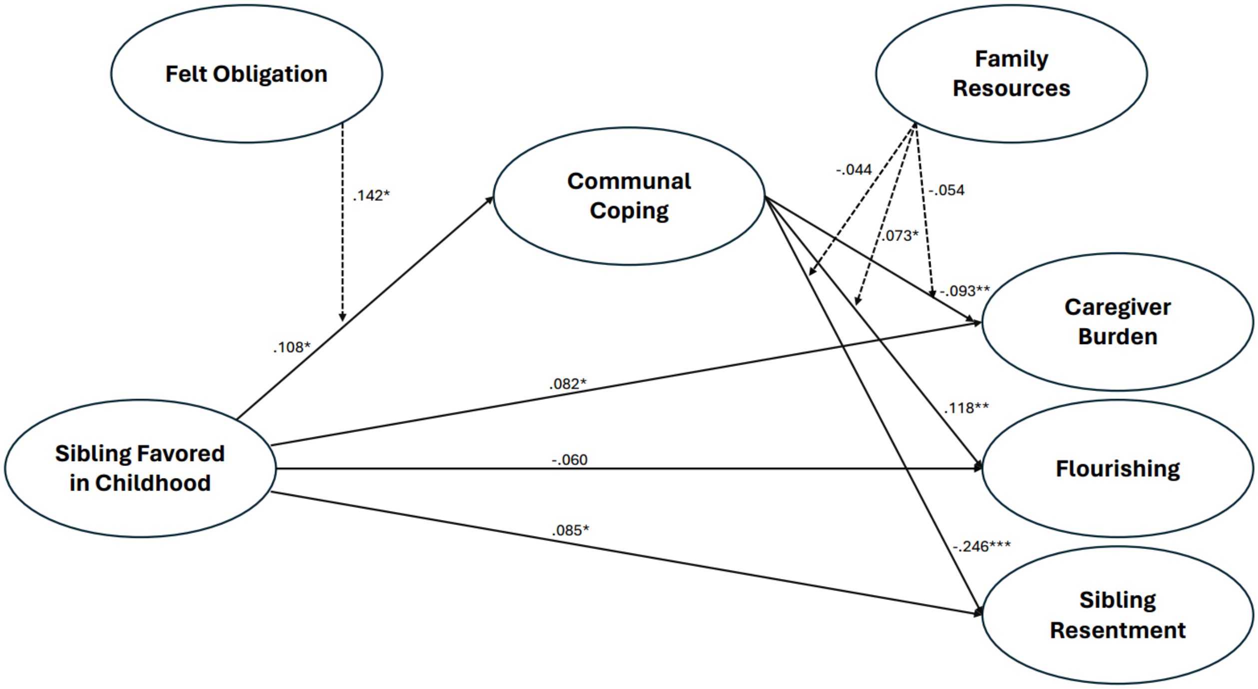


Figure 5.

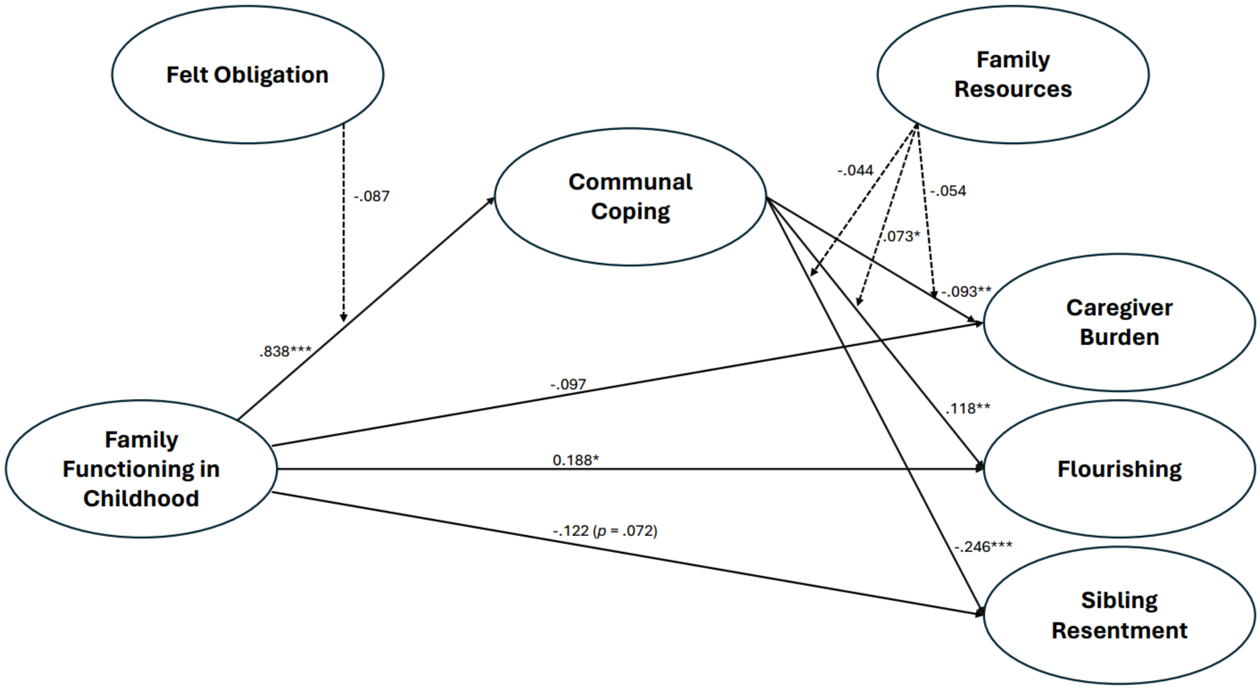
Results for Hypothesized Parental Favoritism Model



Note. * *p* < .05; ** *p* < .01; *** *p* < .001. Family resources approach statistical significance at *p* = .052.

Figure 6.

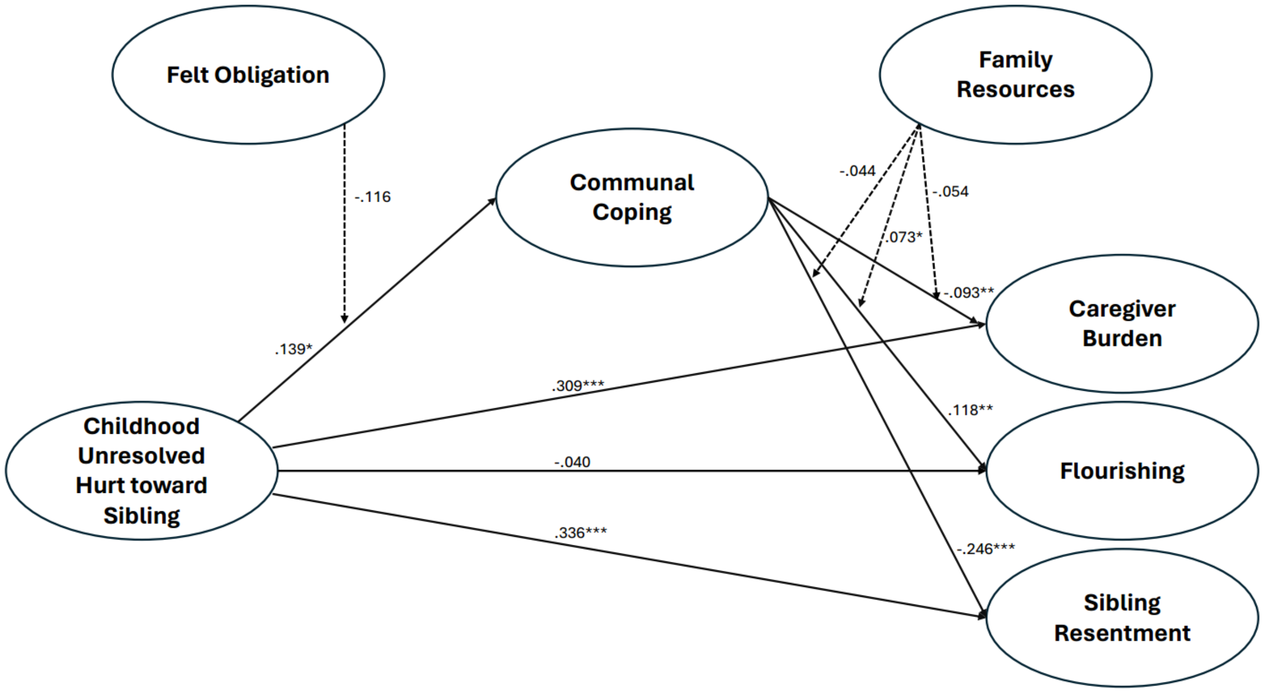
Results for Hypothesized Family Functioning Model



Note. * *p* < .05; ** *p* < .01; *** *p* < .001. Family resources approach statistical significance at *p* = .052.

Figure 7.

Results for Hypothesized Unresolved Hurt Feelings Model



Note. * *p* < .05; ** *p* < .01; *** *p* < .001. Family resources approach statistical significance at *p* = .052.