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Title: How Do Caregivers Reach Out? Providing Support to our Most Supportive

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Master of Arts

Sociology

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Jessica Star

B.A., Brandeis University, 2017
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An abstract of

A thesis submitted to the Faculty of the

James T. Laney School of Graduate Studies of Emory University

in partial fulfillment of the requirements for the degree of

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2020

Abstract

How Do Caregivers Reach Out? Providing Support to our Most Supportive

By: Jessica Star

In this paper, I will delve into the social connections that caregivers maintain, looking at which factors facilitate or impede their retaining them. Using a role-theory framework, I will look at how both the experience and history of caregiving influence reaching out not only through interpersonal connections but also via social media. Interpersonal connections are aspects of social integration that can mediate some of the effects of caregiving on health, so it would be beneficial for caregivers to reach out to them (Moen et. al. 1995). However, the role strain perspective highlights that there is only a certain level of “time, energy, and commitment” that individuals can impart to these connections and associated roles (Moen et. al. 1995). Role theory addresses the dependent variable of seeking social integration as caregivers need it for their well-being, but they likely do not seek out these relationships because of role-strain. I pose the question: What are the social conditions that facilitate or hinder caregivers’ efforts to make social connections?

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Committee

Dr. Irene Browne (Chair)

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Table of Contents

Introduction

Towards the end, my mom always had to remind my uncle Arnie to shower. My aunt Wendy had been battling Leiomyosarcoma, a rare cancer, for almost six years, and Arnie rarely left her side. Every week my mother took the two-hour drive to spend all day in a hospital room. She had to literally push Arnie out of the room to allow him to clean up and maybe catch up with a friend. For the last four months of my aunt Wendy's life, Arnie's main interactions were with medical professionals; his only respite was when my mother or one of Wendy's friends came to relieve him. If no one showed up on a specific day, he would brave the doctor's poor prognoses and the thought of losing his spouse alone.

Adults like Arnie who are caring for their ill or disabled spouses often face a dilemma: the heavy demands from their caregiving role simultaneously increase their *need* for social support while decreasing their *access* to it (Tixier et al. 2009). Debilitating diseases such as late-stage Alzheimer's or serious cancers require 24/7 care and can be emotionally devastating to the caregiver. Yet these intensive time demands provide very little opportunity for the caregiver to connect with members of their social support network (Skaff and Pearlin 1992). The maintenance of social connections can have lasting effects on caregivers' well-being and identity even after they are no longer fulfilling this role (Caputo et. al. 2016). Little research addresses the means by which caregivers reach out to their social networks, along with who they reach out to, both while providing caregiving and after this role has ended.

In this paper, I will delve into the social connections that caregivers maintain, looking at which factors facilitate or impede their retaining them. Using a role-theory framework, I will look at how both the experience and history of caregiving influence reaching out not only through interpersonal connections but also via social media. Interpersonal connections are aspects of social integration that can mediate some of the effects of caregiving on health, so it would be beneficial for caregivers to reach out to them (Moen et. al. 1995). However, the role strain perspective highlights that there is only a certain level of "time, energy, and commitment" that individuals can impart to these connections and associated roles (Moen et. al. 1995). Role theory addresses the dependent variable of seeking social integration as caregivers need it for their well-being, but they likely do not seek out these relationships because of role-strain. I pose the question: What are the social conditions that facilitate or hinder caregivers' efforts to make social connections? The literature identifies at least 4 specific conditions that I will be investigating in my study:

- Experience of caregiving and seeking social integration (currently caregiver or former caregiver)
- Target of social integration (family or friends)
- Mode of seeking social integration (traditional or social media)
- Social roles and seeking social integration (caregiver; family role; marital status; employment; gender)

The urgent need to answer this question stems from the benefits of social support, especially for those in distress. Social support has been shown to help relieve the stress from the "burden of care" that caregivers often experience (Thoits 1986). Connections to family, friends, and other caregivers can provide material and emotional resources to relieve some of its physical, financial, and emotional burdens. The burden of caregiving should continue to rise as the large cohort of baby boomers age into their 70s and 80s, and as healthcare costs continue to rise. U.S. census data shows that the older populations are growing, and soon could outnumber younger groups (U.S. Census Bureau).

Informal caregivers participate in "convoys of care" for the patient that are comprised of both formal and informal caregivers (Kemp et. al. 2013) that interface with each other. In many ways, informal domains are friends and family who fill the gaps where formal support is lacking (Kemp et. al. 2013). Many cannot afford formal caregivers or, even if they can, they might not provide substantial social support. Informal caregivers play a vital role in the healthcare system; just like that of their patients, their well-being is of paramount importance. Social support is crucial to their success (Umberson and Montez 2010).[1]

I first describe the history of social support as a form of social capital and then introduce role theory and the specific role of caregiver. I then examine factors including demands of care provided and multiple beneficial roles that may affect social support for caregivers. I draw on the sample in the Midlife in the United States data set (MIDUS) to analyze the effects of caregiving on reaching out to friends and family members. MIDUS distinguishes between personal connections and those via social media. It also includes key factors identified in the literature, including the relation of the caregiver to the patient, the caregivers' employment and marital status and gender that may affect the methods they use to reach out. Finally, I analyze the results to test seven hypotheses linked to whether social media and traditional connections are used by caregivers.

Social Support

My research on caregivers' attempts to reach out to family and friends falls within the concept of social support, which is a specific type of "social capital." Social capital consists of "social resources such as social network characteristics and family relations" (Burr et. al. 2005:

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[1] In this paper, when the term "caregiver" is used it indicates informal caregiving unless directly stated otherwise.

248). As a subset of social capital, social support includes the social connections an individual has, as well as the particular types of support provided as a result of these connections. Similar to social integration, social support includes the networks a caregiver has, but it also includes the actual support the caregiver receives.[2] Social support adds to a caregiver's ability to "cope" (Tixier and Lewkowicz 2016: 3). Different types of social support along with other roles can help buffer the negative impacts of caregiving.

These social connections are what can help relieve burden and stress. Approximately 40% of caregivers see the role as stressful and that it influences well-being (Caputo et. al. 2016). This stress can lead to cumulative consequences that have lasting effects on caregivers (Caputo et. al. 2016). Stress is a potential burden attached to caregiving that can impact social connections. Stress can prevent caregivers from connecting, yet these connections are a coping mechanism.

Types of Social Support

There are two different types of social support that can provide those in distress with help: instrumental and emotional support. Instrumental support involves tangible actions provided by another person to assist someone in need (Chappell et. al. 2015; Thoits 1984). Examples of instrumental support include helping with specific daily tasks (Chappell et. al. 2015). Emotional support encompasses less tangible actions or words that provide mental comfort. This support includes but is not limited to assisting in the maintenance of identity and providing self-revealing relationships (Chappell et. al. 2015; Thoits 1984).

Implementing the Role Strain Perspective

[2] For the rest of this paper the term social support will be used in lieu of social integration as it is broader and includes support

Role theory provides a useful framework for examining “reaching out” amongst caregivers in the context of the stress generated from the role of caregiving. Role theory suggests that the multiple roles an individual has can influence their health compared to those with fewer roles (Moen et. al. 1995). Caregiving is included as one of the many roles an individual holds.

Within role theory, there are two conflicting perspectives on the impact of multiple roles on social connections. The role-enhancement perspective suggests that individuals, generally women, who engage in more roles experience increased mental health (Moen et. al. 1995). Life experiences such as marriage and employment can greatly influence mental health. Marital status is even associated with a lower risk of mortality for caregivers (Caputo et. al. 2016). As Kessler and Mcleod 1984 mention, the life experiences of an employed individual are extremely different than those unemployed. Employed caregivers actually experience less depressive symptoms than un-employed caregivers (Caputo et. al. 2016). These specific roles may need to be considered as a buffer to role-strain, and as a contrast point to the burden of multiple roles. Researchers even produce mixed results about whether the role of caregiver itself enhances or diminishes mental health (Moen et al. 1995).

Caregiver Role and Seeking Social Support

Most roles caregivers take on can feel like an *add-on* that overloads their ability to maintain social and emotional health (Moen et. al. 1995). Caregivers often feel squeezed, or strained, by taking on the caregiver role along with multiple other roles. I follow the role-strain perspective in stating my hypotheses about the role of caregiver, but I also specify in later hypotheses that specific roles may act as a buffer that do not follow the role-strain perspective.

Hypothesis 1: Due to the responsibilities of caregiving, those still caregiving are less likely to maintain social connections with friends and family than those who are no longer caregiving.

Family Roles and Seeking Social Support

The relationship between the caregiver and patient—that is, their “role” as spouse, adult child, or parent -- also impacts the nature of social support that they seek. However, there is disagreement in the literature about how caregivers’ burden is changed by the closeness of their ties within the family to the patient. Christakis and Allison (2009) find that spousal caregiving is the most detrimental to social support and health. Hoyert and Seltzer (1992) also find that women who were caring for spouses participated in the lowest number of activities and organizations, thereby reducing the potential support that they might receive from others. In their study, caring for children or other family members does not decrease social activity with the same intensity as caring for spouses. However, a different study found that daughters experience the most burden when caring for a family member (Chappell et. al. 2015). Burden was experienced more heavily by those who have a more distant relationship to the patient, as well as spousal caregivers (Chappell et. al. 2015).

Christakis and Allison (2009) argue that spousal caregiving is typically the most detrimental to social support because the caregiver can be losing their confidante. Chappell et. al. (2015) took the conversation further by considering how the strength of the prior relationship, as well as caregiver and care recipient gender, are important in burden for dementia caregivers in Canada. Caregivers may be losing their main confidante, spouse, as they are now caring for them. This provides an added layer of role strain, which can be detrimental to their health and social support. Relationships such as with a child may not be as straining because you aren’t losing the confidante. Since the work of Hoyert and Seltzer (1992) found that caring for a child along with non-close relationships did not experience a decrease in social activity. Based on this result, caring for a child will be placed into non-close relationships. However, since we measure all of these relationships separately, as will be discussed later, caring for a child can be seen in the middle of the spectrum of close relationships. The term close relationships then signify those who caregivers confide or interact with the most. My research builds on this work by extending the investigation of relationships to the care recipient and social connections of caregivers by including many unique relationships and also two methods of contact.

Hypothesis 2: Caregivers are less likely to seek social support if they have a closer relationship to the care recipient. Specifically, caregivers are less likely to seek social support if they are caring for a parent compared to caring for someone who is a more distant relation.

Target of Social Support: Family and Friends

Close relations to the patient may reduce attempts to reach out, while close relations in one’s social network might increase reaching out. However, there is not a lot of research on the delineation between friend and family connections on caregiver, which is part of why this project is being done. Being able to derive what are the types of connections caregivers are using, is at the heart of this paper. Social connections can provide social support along with knowledge (Tixier and Lewkowicz 2016). However, caregiver may not be able to reach out to these supports due to role strain. Family and friends may also not be able to help out as much as desired. “Family and friends appear as a source of support; however, their availability and ability to understand may be missing” (Tixier and Lewkowicz 2016: 9). Since friends tend to be in a close physical distance to caregivers, it is anticipated that they will be contacted more frequently.

Hypothesis 3: Caregivers will be more likely to maintain social connections with friends than with family members.

Mode of Seeking Social Support: Traditional and Social Media

The types of social connections—primarily through traditional means or social-media platforms--provide different types of instrumental and emotional support to caregivers. This can affect whether caregivers who feel overloaded, through “role strain”, can reach out and improve their emotional health. Although caregivers themselves have social networks, the time devoted to their patients may make face-to-face interactions with others difficult. As a consequence, researchers have begun to emphasize the creation of online networks for caregivers to provide them with more accessible support. Other advantages of social-media connections are that they can expand a caregiver’s personal network, which leads to further knowledge (Tixier and Lewkowicz 2016). These networks are used to respond to routine activities as well as crises involving the sick family member or friend (Pescosolido and Levy 2002).

Tixier and Lewkowicz (2016) conducted research on caregiver networks in France that are available to the friends and family members of Alzheimer’s patients. They created an online healthcare community for informal caregivers of Alzheimer’s patients, called “RéGéMA,” to tackle caregiver burden. These connections not only fostered support but learning (Ellison et. al. 2014), supporting the idea of social capital as necessary for fulfilling the caregiver role. Lewkowics and Gaglio (2009) further suggest the creation of other online resources for these caregivers if they lack close, in-person connections. Caregivers who participate in these media-based caregiver social networks secure a means to maintain social support (Burr 2005 :247). While online networks are certainly innovative, whether caregivers use them, especially in comparison to traditional contact, remains to be investigated.

Hypothesis 4: Current caregivers are more likely to maintain social connections through social media than through traditional methods.

Social Roles and Seeking Social Support: Respondent Employment and Marital Status

Caregivers’ marital and employment status might buffer the strains and facilitate the development of social support. Although the focus of this paper is on role-strain, it is important to determine whether certain roles might actually buffer the overall negative effects of multiple roles. As an aspect of social integration, marital status is seen as a facilitating role to seeking social support. Marital status contributes to better health and well-being (Caputo et. al. 2016), whereas marital disruption can be destructive to social integration and health (Caputo et. al. 2016 Kessler and Mcleod 1984). Since well-being and social connections are linked, marital status can play a beneficial role in maintaining social connections.

Hypothesis 5: Married caregivers will be more likely to maintain social connections with friends and family compared to caregivers who are not married.

The work of Jane Mcleod and Ronald Kessler (1985) highlights the role of job status in coping with an undesirable life event. Even though caregiving reduced social support, job status had a positive association with social support that modified some of the effects of caregiving (Mcleod and Kessler 1985; Skaff and Pearlin 1992). However, older employed female caregivers are less likely to engage in family and formal activities (Farkas and Himes 1997). These researchers discovered the incompatibility between caregiving and professions, especially for these older individuals. The combination of caregiving and profession hindered involvement with other activities, including maintaining social connections.

Hypothesis 6: Employed caregivers will be more likely to maintain social connections with friends and family compared to caregivers who are not employed.

Role of Gender

The experience of caregiving is shaped by personal and interpersonal contexts that can improve or worsen the health and well-being of the carer (Caputo et. al. 2016). These personal and interpersonal contexts can also shape the maintenance of social connections. The connection between gender and caregiving is an area that receives a lot of attention. This is due in part to the abundance of female caregivers. However, it is important to include men in the conversation as there is evidence that men and women experience caregiving differently. "Gender theories point to the complex cultural and emotional pressures and reward for women to provide care …which…impacts the amount and type of care provided" (Pavalko 2011; 608).

Moen (1995) provides a foundation for research of the impact of gender on caregiving. She found that women were more likely than men to take on caring or "kinship" roles, and therefore are better prepared for the caregiver role (Moen 1995, 259; Pavalko and Wolfe 2016). However, Freedman, Cornman, and Carr (2014) challenges this view. Using the 2009 Panel Study of Income Dynamics and Disability and Use of Time supplement, they were able to determine that husband caregivers reported similar levels of happiness and frustration as wife caregivers (Freedman, Cornman, and Carr. 2014). Although their work involved well-being as social support, they highlighted the importance of support in the field of caregiving and well-being (Freedman, Cornman, and Carr 2014). These conflicting sources lead me to question the effect of gender on social support for caregivers.

Hypothesis 7: Female caregivers will be more likely to maintain ties to family and friends compared to male caregivers.

Methods

Sample

To determine the relationship between caregiving and social connections, I used secondary data from the third wave (2013-2014) of the Midlife in the United States (MIDUS) set. The MIDUS study is a longitudinal data set that originally included 7000 participants who were between the ages of 25-75. For the third wave of the study, the age range is older than represented in the first wave. Of the original 7000, 3294 respondents were re-interviewed for the third wave using phone interviews and mail-in questionnaires. Given that only 4460 respondents of the MIDUS first and second waves were still alive, the third wave had a very high response rate. The respondents also include a strong distribution of men and women, along with a geographic diversity.

The third wave was selected not only because it is the newest wave, but also because it was the first to include questions on caregiving. However, only 434 individuals were asked both the caregiving question and questions on social connections, with only about 300 individuals answering both the caregiving and social-support questions.

Although the MIDUS is very strong in certain areas, it is not very racially diverse. Of the 3267 who answer the question on racial origins, only 122 indicated Black, 29 Native American, 12 Asian, and 1 Native Hawaiian. The sample for examining how caregiving affects social connections is largely White. Thus, my analysis consider race only in terms of White vs. Non-White.

Dependent Variables

To test the hypotheses, I examined four different dependent variables, all of which pertain to types and sources of social connections: Family Social Media; Friends Social Media; Family Traditional; and Friends Traditional. The questionnaire represented social media as Facebook, Twitter, MySpace, Skype, text messages, chat rooms, etc. These were operationalized using the following questions:

1. Family Social Media: “How often are you in contact using social media with any members of your family, that is, any of your brothers, sisters, parents, or children who do not live with you?”
2. Friend Social Media: “How often are you in contact with any of your friends using social media?”
3. Family Traditional: “How often are you in contact with any members of your family, that is, any of your brothers, sisters, parents, or children who do not live with you, through visits, phone calls, letters, or email?”
4. Friends Traditional: “How often are you in contact with any of your friends through visits, phone calls, letters, or email?”

As can be seen, the questions were parallel for friends and family. Study participants marked one of eight response options: several times a day; about once a day; several times a week; about once a week; two or three times a month; about once a month; less than once a month; and never or hardly ever. With a focus only on caregivers, there were too few responses for all scaled categories. Thus, I collapsed and reverse coded the categories to represent four options: never (1); monthly (2); weekly (3); and daily (4).

Independent Variables

The primary independent variables in this research project fall into three categories:

1. *Caregiver status.* The variable “Still Caregiving” is operationalized by asking if someone is still providing care to a friend or family member. “Still Caregiving” is a dichotomous variable with possible answers of yes (Still Caregiving=1) or no (Still Caregiving=0).

2. *Relation to care recipient.* The social role captured by the caregiver's relation to the care recipient is operationalized by ask to whom provided care. The relationship to the care recipient was asked. This variable had 13 possible responses. However, the 13 possible responses indicated only 7 different relationships. Meaning that wife/husband, daughter/son, mother/father, sister/brother, grandma/grandpa, mother-in-law/father-in-law were all considered separate responses. For the purposes of analysis, I combined these to create 7 different response options including "other". I then condensed it to 5 responses "spouse, child, parent, sibling, other", with grandparents and in-laws being placed into "other". I then dummy coded each of these to be separate variables of "child, parent, sibling, and other" with "spouse" as the referent.
3. *Marital Status*. Marital status was a dichotomous variable with yes=1 and no=0. It is included as a separate variable from spouse relation to care recipient because not all caregivers are caring for a spouse. Also, spouse is being used as a referent. Marital status is used to determine the effects of marital status, where above is looking at the effects of caring for a spouse.
4. *Employment status*. Employment status was dichotomized into yes/no responses with yes=1 and no=0.
5. *Gender*. Gender was measured as a dichotomous variable, with female coded as=1 and being male as=0.

Controls

In the analyses of caregiving, the three variables that will be analyzed as controls are:

1. *Race*. This was originally measured by several categories: White; Black; Native

American/Alaska Native; Asian; Native Hawaiian; and a specified “other.” However, because of low numbers in some categories, I dichotomized the variable into White=0 and Non-White=1.

2. *Age, measured in years.* I squared age to see if the results were non-linear, but it provided no significant effects, so I retained the original, non-squared, age variable. Respondents’ age ranged from 42 and 92 with the average age being just around 63, informing us that the sample is older.
3. *Education.* The original education variable had 11 possible responses ranging from no school/some grade school to a completed master’s degree; further degrees of PHD, MD, or JD were not specified. I treated education as 5 dummy variables of “Some School, HS Grad, Some College, College Grad, and Post College. I then combined “Some School” and “HS grad” to create the reference category in the analysis, as the percentage of the sample who had some schooling but did not graduate high school was quite low (see Table 1).

Analysis

Analysis involves an ordinal logistic regression model in STATA 15.1. This method is necessary because the dependent variable of social connections is discrete and ordinal in nature.[3] The response options of nonresponse and “I don’t know” were originally placed into the analysis, but they were not significant. The percentage of caregivers who replied, “I don’t know”

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[3] Both OLS and Probit regression models were tested and provided similar results to the Logit model. The Probit model tested endogeneity in the independent variable, but the endogeneity proved to be nonsignificant so is not included in the final results.

was extremely low for almost every variable. Reported analyses exclude “I don’t know” responses.

Results

Table 1 provides the descriptive statistics, the mean values, and their standard deviations for all the variables in the model. Responses 0-4--the dependent variables of family social media, friend social media, family traditional, and friend traditional--had means ranging from 2.35 to 3.33, showing that more individuals are contacting family members than friends and are using traditional methods more frequently than social media to make connections. More than half of those caregiving are still providing care (61.06 percent). About 25 percent of the sample provided care to a spouse, another 50 percent provided care to a child, parent, or sibling, and the remaining 25 percent provided care to a friend or less-close family member. About 69 percent of the sample were female, and the same percent were married. Less than half of the sample were employed, and over 85 percent were white. There was a fairly even distribution of caregivers in each level of education. However, the education levels of the individuals in the study are much higher than expected. More than 20% of the sample had post college education. The mean age was around 63 years old.

Table 1. Descriptive Statistics

Variable	(%) or Mean (SD)
Family Social Media	2.43 (1.19)
Friend Social Media	2.35 (1.18)
Family Traditional	3.33 (0.74)
Friend Traditional	3.08 (0.78)
Still Caregiving	61.06
Sibling	6.68
Parent	29.50
Child	15.21
Spouse	24.19
Other	24.42
Women	69.04
Married	69.12
Employed	42.72
Age	62.84 (10.30)
Nonwhite	12.44
SomeSchool	5.07
HSgrad	22.81
Lesscollege	21.15
Collegegrad	29.66
Postcollege	21.38

Table 2 provides the outputs of the ordinal logistic regressions for the four dependent variables by the primary independent variable of still caregiving. The other variables included in the model are to whom care is provided (other; sibling; parent; child; or spouse [referent]), gender, marital status, employment status, race, and age.

Table 2. Ordinal Logistic Regression of the Social Connections of Informal Caregivers

Variables	Family SM	Friend SM	Family T	Friends T
Stillcare	0.56**	0.56**	1.11	0.75
Child	0.77	1.27	1.12	1.54
Parent	1.14	1.57	1.28	1.79
Sibling	1.71	2.47	3.69*	3.39*
Other	1.04	1.49	0.44*	2.09*
Women	1.47	1.24	2.18**	1.10
Married	1.96**	1.44	1.48	0.72
Employed	1.29	0.94	1.17	0.80
Age	0.98	0.98	1.02	1.02
Nonwhite	0.92	1.03	0.94	0.80
Lesscollege	0.78	0.83	0.88	0.68
Collegegrad	0.92	1.07	1.16	1.53
Postcollege	1.05	1.68	0.87	1.36
Observations	317	317	317	318
="*** p<0.001	** p<0.01	* p<0.05"		

Hypothesis 1: Due to the responsibilities of caregiving, those still caregiving are less likely to maintain social connections with friends and family than those who are no longer caregiving.

As Table 2 illustrates, the odds of reaching out to friends and family through social media, which will be discussed in more detail later, were lower for caregivers than those no longer caring. However, the odds of reaching out to friends and family through traditional connection was no different for those caregiving and for those no longer caregiving.

Hypothesis 2: Caregivers are less likely to seek social support if they have a closer relationship to the care recipient. Specifically, caregivers are less likely to seek social support if they are caring for a parent compared to caring for someone who is a more distant relation.

This hypothesis was not supported. In fact, the results on reaching out through traditional channels showed the opposite pattern from what was predicted. Compared to the referent of spouses, those caring for a child are more likely to reach out to family through traditional methods. The odds of reaching out through traditional contact to family for those caring for a sibling was, on average, 3.69 times the odds of those caring for a spouse. Yet, the odds of reaching out through traditional contact to family for those caring for those labeled under “other” was, on average, 0.44 times the odds of those caring for spouses. There was also a positive association between caring for a sibling or “other” and reaching out to friends through traditional methods. The odds of reaching out through traditional contact to friends for those caring for a sibling and “other” were, on average, 3.39 and 2.09 times the odds of those caring for a spouse respectively.

Hypothesis 3: Caregivers will be more likely to maintain social connections with friends than with family members.

There was no visible association between maintenance of social connections and who the caregivers were reaching out to.

Hypothesis 4: Current caregivers are more likely to maintain social connections through social media than through traditional methods.

The association between type of communication and to whom communicating were both impactful. There was a decline in social media contact for caregivers in both reaching out to family and friends. The odds of reaching out through social media to a family member or friend was, on average, 0.56 times the odds for those no longer caregiving. Although the effects go away with the role, caregiving is negatively associated with all social media contact.

Hypothesis 5: Married caregivers will be more likely to maintain social connections with friends and family compared to caregivers who are not married.

The odds of reaching out to family through social media for married individuals was, on average, 1.96 times the odds for those who were unmarried. For the other three dependent variables of reaching out to friends through social media, family through traditional, and friend through traditional marital status the association with marital status was not significant.

Hypothesis 6: Employed caregivers will be more likely to maintain social connections with friends and family compared to caregivers who are not employed.

There was no association between maintenance of social connections and caregivers' employment status.

Hypothesis 7: Female caregivers will be more likely to maintain ties to family and friends compared to male caregivers.

Consistent with the literature, the odds of reaching out to family through traditional contact for women was, on average, 2.18 times the odds for men.

Discussion

At the beginning of this paper, I posed the question: What are the social conditions that facilitate or impede efforts to make social connections for caregivers? This question was addressed by the 4 specific conditions of experience of caregiving, target of social integration, mode of seeking social integration, and social roles and seeking social integration. I set out to see if caregivers used social media differently than traditional contact means, and if particular social roles could eliminate the detrimental effects of caregiving on reaching out. These are the findings that correlate to each hypothesis.

Finding 1: Those still caregiving are less likely to maintain social connections through social media than those who are no longer caregiving.

Although caregiving did not have a clear and consistent association with social connections, current caregivers experienced a decrease in social media connections. This decrease did not remain once the caregiver was no longer caring. This adds to the literature as all social connections were originally hypothesized to be influenced by the demands of caregiving. Miller and Montgomery (1990) found that caregivers who reported higher demand in their role reported lower involvement in social activities. However, they did not report whether this effect remained after caregiving. Also in my study, current caregivers only reported a reduction in social media connections, not in-person ones. A potential reason behind this is the burden may not be as high for these caregivers, or there is something we still do not understand in the relationship between caregiving and social connections. Also, the reduction in social connections may not persist after caregiving, but the effects of this period of reduction may be longer lasting.

Finding 2: The caregiver's relationship to the care recipient affects seeking social support.

The responsibility of to whom providing care did affect reaching out to family and friends through traditional methods. Those caring for a sibling have a positive association with traditional contact to family compared to those caring for a spouse. Those caring for "other" or a less close relationship had a negative association with traditional contact to family compared to those caring for a spouse. This tells us that spouses are still serving as confidantes even when they need care. Similarly, those caring for a sibling have the highest association with reaching out to friends through traditional contact compared to spouses. The "other" category also had a positive association, but it was not as large. For reaching out to friends through traditional contact there is not substantial evidence to confirm that spouses are still acting as confidantes even when they need care. This emphasizes the need to examine all of the different caregiver relationships to the patient separately, because they are all important.

This adds to the literature as other works discussing the relationship to the care recipient and social support were dated (Hoyert and Seltzer 1992). Hoyert and Seltzer did find an improvement in social activities for caregivers less close to the care recipient, but caregiving has changed drastically in the last 30 years. Literature that includes the care recipient from more recent years does not focus on social connections comparing mode of reaching out (i.e. social media vs. traditional) (Christakis and Allison 2009, Chappell et. al. 2015).

Finding 3: There is no difference in the chances of seeking social support if the target is a family member versus a friend.

As there was not much literature on caregivers' maintenance of social connections with friends and family, it is not surprising that these results suggested no association.

Finding 4: Current caregivers are more likely to maintain social connections through traditional methods than through social media.

The type of communication matters as current caregivers are more likely to maintain connections through traditional manners than through social media. The independent variable of whether one is still caregiving only was significantly associated with social media contact. Still providing care was negatively associated with all forms of social media contact. Even with the control of age included in the model, which can be an indication of low social media usage, caregiving was still negatively effective and age was not significant. Either caregivers have too much burden to commit to social media or there are not appropriate forums for them to express concerns and receive support.

The literature indicated that ease related to using social media networks may improve social media connections for caregivers. The question becomes why was my hypothesis supported in a different direction than expected? One of the main reasons behind might be because the age of caregivers in the MIDUS data set is older than in other studies. Age influences one's usage of social media connections, so having an older cohort can influence these numbers (Ellison et. al. 2014). The age group of 51 and older was the least likely to use Facebook to cultivate social resources, so it is not surprising that caregivers whose average age was in the 60s would not use it. It would be interesting to run this analysis on younger samples.

Finding 5: Married caregivers are more likely to maintain social connections to family through social media than unmarried caregivers.

For caregivers, there is an association between marital status and reaching out to family through social media. Although being married led to an increase in social media connections for family, it was not associated with other modes or targets of support. Are married caregivers better at using social media? Or is it that the main people that caregivers contact through social media are spouses? I am curious whether marital status would have more associations with social connections if the respondents were younger couples.

Finding 6: There is no difference in the chances of seeking social support if the caregiver is employed or unemployed.

There was not sufficient evidence to suggest an association between the maintenance of social connections and the employment status of caregivers. Employed caregivers did not experience a different association to social connections than non-employed caregivers. Negative health effects might be limited by healthy worker bias, but it appears this does not translate to better social connection usage (Pavalko and Woodbury 2000). Perceptions of marriage and employment are different for those in a mean age of 63 compared to looking at the millennial population. As the baby boomers are aging, more millennials will be taking on these roles, so I will be curious where that will lead.

Finding 7: Female caregivers were more likely to reach out to family through traditional methods than male caregivers.

Looking at the differentiation between contact through friends and through family mattered specifically for the additional independent variable of gender. Female caregivers were much more likely to reach out to family through traditional contact methods. Plenty of previous research indicates that female caregivers, compared to their male counterparts, are better at reaching out to anyone, but that is not always the case (Moen 1995:259, Pavalko and Wolfe 2016). The effect of gender, and being a woman, only provides positive impact for family connections through traditional modes. There is a further need to research how to prevent these friend relationships from being lost, as it is a problem for both men and women.

Conclusion

This thesis reveals the complexity in the relation between caregiving and "reaching out," with different patterns emerging based upon the mode of communication and the determinants of communication. Overall, the evidence suggests that there is a reduction in social media use by caregivers during the duration of the role (caregiving responsibilities and family roles). As mentioned, there is a need to study the association between social connections and caregiving in not just the context of spousal care, but also other care relationships.

A larger data set might have been able to continue the conversation, especially in terms of race, ethnicity, and culture. As mentioned, the low diversity in the caregiver sample prevented race analysis further than a white/nonwhite binary. There is a need to conduct studies and analyses that include a more diverse sample. Caregiving can be very culturally dependent, and, unfortunately, this study does not get at that. The United States is also far more diverse than this sample.

This study points to next steps in analysis and the investigation of caregiving and social support. Since there was no evidence of major difference between reaching out to friends and family, this study could benefit from combining the two traditional dependent variables and the two social media dependent variables respectively. There then would be no need to pare down the eight original response options, and instead create two 16 point scales. The benefit of this method is that an analysis of carers exact responses is done, and also a more easily interpretable analysis is available. This method would instead require multiple linear regressions, which are much more widely understood than ordinal logistic regression. Investigation of other indicators and their relationship to reaching out beneficially expands this analysis.

It would be beneficial to include certain caregiver indicators: of severity of condition, weekly hours of care, and whether the care recipient is in the household. These aspects of caregiving can greatly influence caregivers' abilities to reach out. As previously mentioned the role strain perspective sees the heavy demands from the caregiving role simultaneously increase their *need* for social support while decreasing their *access* to it (Tixier et al. 2009). The severity of condition, hours of care given, and household status can all influence how much time and demand a caregivers' role requires. It can also influence their emotional demand. The role strain perspective does not just highlight time demands, but also the emotional burden and energy. The emotional impact of caring for a terminal patient, or with a more debilitating disease, can have huge repercussions on emotional health. Also, we need to think about how the care recipient remaining in the household prevents caregivers from having a location to escape this emotional and time burden. Social connections can help all of these factors, but we need to understand how caregivers lose these connections before we can help them regain.

Finally, my results point to an important public health intervention – that is, creating and supporting better social network forums for caregivers in the United States. It would be interesting to determine how family and friends reach out to their respective friends and family who are caregiving, and if they could benefit from an online network. These forums could include both knowledge and emotional assistance, especially if it includes an extensive sample of caregivers along with friends and family who want to learn more.

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