

## Research Article

# Caregiver Stress and Mental Health: Impact of Caregiving Relationship and Gender

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## Abstract

**Purpose of the Study:** This study compared the stress and mental health implications of caregiving to a spouse, children, siblings, other family members, friends, and others among middle-aged and older male and female caregivers.

**Design and Methods:** Multivariate regression analyses were conducted using 2007 Canadian General Social Survey data collected on a subsample of caregivers aged 45 and older.

**Results:** Our analyses revealed that for women, caring for a spouse or children was more stressful and detrimental to mental health than caring for parents or others. Similarly, for men, caring for a spouse and for children was more stressful than caring for others but did not adversely affect overall mental health.

**Implications:** The findings suggest that spousal and child caregiving tend to be more rather than less stressful and detrimental to middle-aged and older caregivers' mental health than is caregiving to most others but that gender differences need to be considered.

**Keywords:** Caregiving, Mental health, Spousal caregiving, Stress

Family and other informal caregivers provide the vast majority of long-term care to older adults as well as others with chronic illnesses and disabilities (Ennis, Rosenbloom, Canzian, & Topolovec-Vranic, 2013; Viana et al., 2013). In Canada, approximately 8.1 million caregivers (28% of the population aged 15 and older and 35% of those aged 45 and older) provided care to a family member or friend with a long-term health condition, a disability, or problems associated with aging during the past 12 months: 48% provided care primarily to a parent or parent-in-law, 8% to a spouse or partner, and 5% to a child. The remainder (39%) provided care to other family members (23%) or friends, colleagues, or neighbors (16%; Sinha, 2013; Turcotte, 2013; Turner & Findlay, 2012). This is comparable to figures reported in other industrial countries including the United States (National Alliance for Caregiving and AARP, 2009).

To date, numerous studies have addressed the impact of caregiving on the health and well-being of caregivers. In general, empirical accounts suggest that caregiving is stressful and therefore, likely to have negative implications for the mental health and well-being of caregivers. However, limited research attention has been directed toward the implications of caregiver–care recipient relationships for an understanding of caregiving outcomes (Litwin, Stoeckel, & Roll, 2014) as well as the role of gender, age, or other social structural factors in influencing these implications. Yet, recent theoretical and empirical developments direct our attention to their combined importance for an understanding of the experience and consequences of caregiving. This study addresses these gaps in knowledge, examining the stress and mental health implications of caregiving for a spouse, children, parents, siblings, other family members,

and nonfamily (friends, neighbors, coworkers) among middle-aged and older male and female caregivers.

## Background

Notwithstanding the positive aspects of caregiving, including feelings of affection and closeness within these relationships and the sense of personal satisfaction and purpose in life that may be derived from it (Litwin et al., 2014; Turner & Findlay, 2012), caregiving tends to be seen as having negative implications for caregivers' mental health (Pinquart & Sörensen, 2003; Savage & Bailey, 2004). To a large extent, however, research in the area tends to focus on care recipients who are older and consequently, on adult child caregivers to older parents. As a result, questions arise as to whether findings regarding the negative implications of caregiving reflect the specific experiences of this group but differ for those in other types of caregiving relationships.

On the one hand, stress process models (e.g., Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995) as well as social role theory and associated notions of role strain, role conflict, and role overload (e.g., Stephens, Townsend, Martire, & Druley, 2001), have led to suggestions that whereas caregiving in general is stressful, caring for an older parent is particularly stressful and consequently, has a more negative impact on care receivers' mental health and well-being than is caregiving for an older spouse or other family member or nonmember. It has been noted, for example, that adult child caregivers "view caregiving as extra work (role overload) and experience the burden of role reversal" (Chappell, Dujela, & Smith, 2014, p. 463) whereas spouses usually do not face conflicts between the caregiver role and other family and work-related roles (Lin, Fee, & Wu, 2012; Pinquart & Sörensen, 2007). As well, it has been argued that caregiving for a spouse is considered part of one's marriage vows and thus, more normative (expected and thus accepted) than caregiving for other frail persons (Chappell et al., 2014; Lin et al., 2012).

However, recent theorizing grounded in notions of ambivalence suggests a more complex and differentiated scenario. As a concept, ambivalence tends to be used to refer to the simultaneous evaluation of relationships as both positive and negative (Willson, Shuey, & Elder, 2003). Whereas *psychological ambivalence* tends to be seen in terms of contradictory feeling states or emotions of individuals, *sociological ambivalence* draws attention to its sources, specifically the "pressures imposed by contradictory demands or norms placed on an individual in a particular social location, role, or relationship" (Willson et al., 2003, p. 1056). For example, Connidis and McMullin (2002a, 2002b) suggest that caregivers experience ambivalence when they must contend with "structurally created contradictions" in their interpersonal relationships, including those with other family members. These include contradictions between their attempts to

exercise agency (so as to meet their own individual needs) and normative obligations requiring them to provide care to family members. Gender and other (e.g., age, class, race, and ethnic) relations are seen as being socially structured in ways that are evident in familial relationships. Thus, the family represents an institution through which gender and other inequalities are played out and as a result, reinforced. They determine the options that various people will have with respect to caring work (e.g., options regarding whether, how, and when to engage in caring work). For example, since women tend to "have fewer options for resisting the pressure to provide care than do men" they are "more likely to experience the ambivalence that results from pressure to provide care and limited individual agency to resist this pressure" (Connidis & McMullin, 2002a, p. 563).

Ambivalence, in turn, is seen as having implications for the quality of the relationships as well as for how caring work and other issues are responded to. By implication, structural ambivalence is a negative or uncomfortable experience and an issue to be resolved. Accordingly, Lüscher and Pillemer (1998) see psychological or individual ambivalence as referring to "the feelings or sentiments experienced by individuals when faced with structural ambivalence" (Bengtson, Giarrusso, Mabry, & Silverstein, 2002, p. 569). Empirical evidence supports this link, indicating that those who report greater ambivalence also show poorer psychological well-being (e.g., Fingerman, Pitzer, Lefkowitz, Birditt, & Mroczek, 2008).

To date, however, empirical evidence regarding the implications of different types of caregiving relationship for perceptions of ambivalence or its implications is lacking. Comparative research investigating the implications of caregiver-care recipient relationships for psychological well-being tends to be limited to specific subgroups and the results inconsistent (Litwin et al., 2014). A number of studies report finding that adult child caregivers experience significantly greater burden than other family caregivers (Andren & Elmstahl, 2007; Chappell et al., 2014) whereas spouses experience less burden than others (e.g., Bookwala & Schultz, 2000). In direct contrast, however, others report that spouses experience more burden than adult child caregivers (e.g., Hong & Kim, 2008; Ott, Sanders, & Kelber, 2007) or nonspousal caregivers generally (Kim, Chang, Rose, & Kim, 2012; Mohamed, Rosenbeck, Lyketsos, & Schneider, 2010). Recently, based on data from adults residing in 19 countries, Viana and colleagues (2013) found greater burden being reported for care of parents, spouses, and children than siblings whereas Shahly et al. (2013), focusing on caregivers aged 50 and older, reported finding greater burden reported for the care of spouses and children than parents or siblings.

Findings from studies of psychological well-being indicators other than burden frequently indicate that spouses are worse off than adult children. Pinquart and Sörensen's (2011) meta-analysis of studies comparing caregiving

spouses, adult children, and children-in-law, led them to conclude that “spouse caregivers report more depression symptoms ... and lower levels of psychological well-being” (p. 1) Based on such findings, Litwin and colleagues (2014) conclude that “long-term spousal care ... presents the greatest challenge to caregiver mental health among the respective relationship types” (p. 230).

Less is known regarding how middle-aged and older spousal and adult child caregivers compare to parental caregivers of children with long-term illnesses or disabilities. Poor psychological well-being has also been documented among middle-aged and older parent caregivers of children with mental health or developmental problems (Ha, Hong, Seltzer, & Greenberg, 2008). For example, Litwin and colleagues (2014, p. 230) found that along with spousal caregivers, coresident caregivers of adult children experienced more depressive symptoms than those who gave care to parents or others. Similarly, Ennis and colleagues' (2013) systematic review found high levels of caregiver distress regardless of caregiver type (parent vs. spouse) among caregivers of adults with traumatic brain injury. In contrast, however, Robison, Fortinsky, Kleppinger, Shugrue, and Porter (2009) found no impact of caregiver/care receiver relationship on psychosocial outcomes. However, in their study, relationship was measured based on generation of the care receiver (i.e., whether care receivers were in an older generation, the same generation, or a younger generation relative to the caregiver).

Even less is known regarding how middle-aged and older spousal, parental and adult child caregivers compare to caregivers of siblings, friends, or other more distal care recipients. Chen and Lukens (2011) compared parent and sibling caregiving for a family member with severe and persistent mental illness and found sibling status was associated with greater emotional well-being but had no impact on burden or depressive symptoms. Finally, Marks, Lambert, and Choi's (2002) study of transitions into caregiving among primary kin (i.e., child, spouse, parent), parent-in-law, other kin and nonkin among adults of all ages, found evidence of negative implications for psychological well-being (depression, happiness) but primarily among caregivers of primary kin: “providing care to a parent-in-law was not associated with negative effects for women or men.... The caregiving relationship type with the lowest level of normative obligation (and therefore, we would expect, the greatest degree of voluntary effort), the care of a nonkin associate, was the ... type associated with the most beneficial effects...” (p. 665).

### The Present Study

The preceding review suggests a need to focus attention on the implications of the caregiver's relationship to the care recipient and gender for understanding of the caregiving experience, including the mental health and well-being of caregivers. Despite extensive attention to the implications

of caregiving for caregiver mental health and well-being, little is known regarding the impact of the relationship of the caregiver to care receiver. Where studied, the focus tends to be on older adults as recipients of care, most often provided by adult children. Consequently, the implications of parental caregiving compared with those associated with caregiving to a spouse/partner, to children, or to others, remain unclear. Furthermore, although gender differences in caregiving outcomes are well-documented, little is known regarding whether and how the implications of the caregiver to care recipient relationship differ by gender. Thus, although research tends to report finding that female caregivers report more burden as well as greater stress and depression than do male caregivers (Kim et al., 2012; Li, Mak, & Loke, 2013; Litwin et al., 2014), the implications of intersections involving gender and relationship status are less clear.

To address these gaps, this study drew on national survey data to examine the stress and overall mental health implications of spousal caregiving compared with those associated with providing care for children, parents, siblings, other family members, and nonfamily (friends, neighbors, coworkers). Two research questions were examined: (a) What impact does the relationship of the caregiver to the care receiver have on stress and mental health outcomes of caregivers? (b) Secondly, does this impact vary depending on caregivers' gender? The analyses controlled for characteristics of the caregiver (age, marital status, living arrangements, education, employment, income, and health status) and care recipient (age, nature of problem requiring assistance, contact with caregiver, and length of care receipt) that have been previously shown to influence stress and mental health among caregivers (Pinquart & Sørensen, 2006, 2011).

## Data and Methods

### Data

Data for the analyses came from the 2007 Canadian General Social Survey, Cycle 21 (GSS-21), conducted by Statistics Canada. The GSS program is an annual national survey that gathers individual- and household-level data to monitor changes in social conditions and the well-being of Canadians (Statistics Canada, 2009). In addition to collecting basic demographic and socioeconomic data, each GSS cycle has a specific thematic focus, such as family, time-use or victimization. The thematic focus of the GSS-21 was aging and social support. It collected detailed information on social support, family history, retirement planning and experience, informal care, and health.

The GSS-21 target population included Canadians aged 45 and older living in all 10 provinces, excluding Canadians living in the northern territories (remote areas) and full-time residents of institutions. The survey was conducted through telephone interviews. As such, households without telephones were excluded, representing 0.9% of the

target population (Statistics Canada, 2009). Households with cellular phone service only (6.4% of Canadian households) were also excluded. Although exclusion of cellular phone only households is a limitation, it is unlikely to significantly bias our regression estimates insofar as cellular phone only households are primarily young adult households (Blumberg & Luke, 2008). In 2008, less than 2% of Canadian adults aged 55 and older relied exclusively on cell phones (Statistics Canada, 2014). As well, our data were weighted to represent the entire target population (including cellular phone only households) in the analyses.

The GSS-21 includes a nationally representative sample of 23,404 Canadians aged 45 and older, with an overall response rate of 57.7%. To study caregiving and health, our study population is limited to caregivers. The GSS-21 identified caregivers by the question, "During the past 12 months, did you provide any assistance to an individual because of a long-term health condition or physical limitation? Exclude paid assistance to clients or patients." For those who answered affirmatively, more information was collected about the primary care recipient—the person to whom the respondent had dedicated the most time and resources (due to a long-term health condition or physical limitation, excluding paid assistance to clients or patients)—and various activities the respondent engaged in to help the primary care recipient. Our study sample included all respondents who had provided such assistance in the past 12 months ( $n = 6,140$ ). Cases with missing data for the dependent variables and the primary independent variables were minimal ( $n = 34$ ) and thus were removed from the analyses. With the exception of household income, missing data for the control variables were generally insignificant (less than one-half percent) and were imputed using multiple imputation techniques (Rubin, 1987). For household income, missing data were nontrivial (18.4%). Thus, a dummy variable for missing household income was added to all regression models.

## Measures

The study considered two dependent variables tapping the psychological well-being of the caregivers. We measured self-rated stress on a 5-point Likert scale, using responses from the question: "Thinking of the amount of stress in your life, would you say that most days are: (a) not at all stressful, (b) not very stressful, (c) a bit stressful, (d) quite a bit stressful, or (e) extremely stressful?" (Lim, Williams, & Hagen, 2005; Littman, White, Satia, Bowen, & Kristal, 2006). Similarly, self-rated mental health was also measured on a 5-point scale, using the question: "In general would say your mental health is: (a) poor, (b) fair, (c) good, (d) very good, or (e) excellent?" (Mawani & Gilmour, 2010).

Our main independent variable was the respondent's relationship to the primary care recipient. As noted, all caregivers were asked to identify a primary care recipient (the person to whom the respondent had dedicated the most

time and resources during the past 12 months) and information was collected about their relationship to the recipient. We measured this relationship as a six-level categorical variable: (a) respondent's own child; (b) respondent's own parent; (c) respondent's sibling; (d) other family such as a grandchild, a grandparent, an in-law, a relative, or an ex-partner/spouse; (e) a friend, a neighbors, a coworker or someone else; and (f) respondent's spouse or partner (the reference group).

Various characteristics of the caregiving network, the caregiver, the care recipient, and care activities were also controlled for in the analyses. We included two variables to measure the caregiving network: whether the respondent was the primary caregiver (1 = *yes*, 0 = *no*), and the size of the caregiving network (i.e., the number of other people providing informal care to the care recipient). Caregiver characteristics included their age (measured in years), current marital status [measured in five mutually exclusive categories: (a) cohabiting, (b) widowed, (c) separated/divorced, (d) never married, and (e) married (the reference group)], coresidence (1 = *living alone*, 0 = *otherwise*), education (ranging from 1 = *elementary school education or less* to 10 = *some post-graduate education or more*), employment status [a three-level categorical variable: (a) currently working at a paid job/business, (b) other employment situations (e.g., working inside the home, looking for work), and (c) retired (the reference group)], household income (a five-level categorical variable), and health status (assessed using two indicators: activity limitations—a dummy variable, indicating whether the respondent reported any amount/kind of limitation in regular activity at home, work, or in other activities due to a physical or mental condition, or health problem—and the presence of chronic conditions—a dummy variable, indicating the presence of any chronic condition—e.g., arthritis or rheumatism, back problems, diabetes, Alzheimer's disease, heart disease, or cancer). Two variables reflected care recipient characteristics: age (in years) and the nature of the problem(s) that required assistance [a categorical variable with four categories: (a) mental, (b) both physical and mental, (c) something else, and (d) physical (the reference group)]. Finally, we included two measures of care activities: frequency of visiting/seeing the recipient [an ordinal variable: (a) less than once a month, (b) at least once a month, (c) at least once a week, and (d) daily (the reference group)] and length of time spent providing care (in years).

## Statistical Models

We used ordinary least squares (OLS) models for the regression analyses. Since both dependent variables were ordinal variables, we experimented with ordered logit models (Long, 1997). Comparing the two sets of the results, however, we found no substantive differences in either the nature or the magnitude of the parameter estimates. For ease of interpretation, we therefore report the OLS results in this article.



In addition, we carefully assessed key model assumptions (e.g., multicollinearity, outliers) and did not detect any serious violations (results of the sensitivity analyses available upon request). Where models were run separately for male and female caregivers, we also tested for the significance of differences in the regression coefficients (unstandardized) associated with the relationship to the care recipient (results not reported but available upon request).

## Results

Overall, 26.2% of those in the overall sample reported that they provided care for someone with a long-term health condition or physical limitation during the past 12 months. Most (56.7% of the target population) of those who reported having provided such care were women. Among female as well as male caregivers, the most frequently reported primary care recipient was a parent (35.1%; Table 1). Over one-quarter (26.2%) provided care to non-family members (such as friends, neighbors, or coworkers). The next most frequent category of primary care recipients included other family members (e.g., grandchildren, grandparents, in-laws—16.8%), followed by spouses (10.3%), siblings (5.8%), and children (5.7%). Female caregivers were somewhat more likely than male caregivers to report caring for children, parents, and siblings whereas male caregivers were somewhat more likely to report other family and nonfamily members as primary care recipients. However, when it came to spousal support, the gender gap was considerably reduced.

Overall, about one-fifth of caregivers in the target population (21.9%) were primary caregivers, including 26.3% of women and 16.2% of men ( $p < .001$ ). The average number of other people providing informal care to the care recipient was 3.3 and did not differ by gender. With regard to demographic and other characteristics, the average age of caregivers was 58.1 years, with no significant difference evident between women and men. This appears somewhat higher than that of the overall caregiver population, reflecting our focus only on caregivers who were aged 45 and older (cf. Sinha, 2013). Over two-thirds of the caregivers (67.8%) were married. Male caregivers were more likely than female caregivers to be married or cohabiting, whereas female caregivers were more likely than male caregivers to be either uncoupled (widowed, separated/divorced) or never married. As a result, female caregivers were also more likely to be living alone. Overall, there was no significant gender gap in education. Most caregivers (58.0%) were employed outside the home, with male caregivers significantly more likely to be employed outside the home and to have higher household incomes than female caregivers. Over 40% of caregivers reported experiencing activity limitations and over 50% reported having at least one chronic illness. Although we found no significant gender difference in activity limitations, female caregivers reported a higher rate of chronic illness than male caregivers.

The mean age of the care recipients was 71.5 years, with little difference evident depending on caregiver gender. Physical health problems were the most common problems encountered by the care recipients, followed by both physical and mental health problems, and mental health problems only. Male caregivers were somewhat more likely than female caregivers to report providing care to individuals with physical health problems; female caregivers were more likely to report caring for individuals with mental or both physical and mental health problems. Table 1 also shows that nearly 80% of female and 75% of male caregivers visited or saw the care recipient at least once a week. Many (31% of women and 27% of men) visited/saw the recipient on a daily basis. The average length of care provision was close to 6 years and did not differ by gender.

Table 1 also shows that although the mean level of self-rated stress was somewhat higher among female than male caregivers, no significant difference was evident in terms of self-rated mental health. A comparison of mean levels of stress and mental health by both gender and relationship of the caregiver to the care receiver (Figure 1), indicates that women reported higher levels of stress than men across all caregiving relationships. In addition, stress was highest among those caring for a spouse followed by children and parents. With regard to self-rated mental health, in contrast, the findings suggest considerable disparity associated with both gender and relationship to the care recipient: whereas male caregivers reported better mental health than female caregivers when comparing caregivers to a spouse, children, parents, and other family members, female caregivers reported better mental health among those caring for siblings and nonfamily members.

Table 2 presents regression estimates (unstandardized) obtained for models in which self-rated stress was regressed on caregiver relationship to the care receiver, by caregiver gender. The findings reveal that for both female and male caregivers, both before and after the introduction of control variables, caring for siblings, for other family members (i.e., other than spouse, children, parents, or siblings), and for nonfamily members were associated with less stress than was caring for one's spouse (the reference category). No differences were evident when comparing self-rated stress levels among caregivers to children and to a spouse. However, although no differences were initially evident when comparing stress levels reported by those caring for a parent versus those caring for a spouse, the introduction of controls revealed a significant negative relationship between caring for parents and self-rated stress: parental caregivers reported experiencing lower stress compared with those in the reference category (spousal caregivers). This was the case for both male and female caregivers, with no significant difference evident between the regression estimates obtained with regard to parental caregiving when influencing self-rated stress (results not reported).

**Table 1.** Descriptive Statistics of the Variables Used in the Regression Models: Canadians (Age 45+), 2007

Variable	All		Women		Men		p-Value <sup>a</sup>
	M or %	SD	M or %	SD	M or %	SD	
Gender (1 = women)	56.7%	—	—	—	—	—	—
Self-rated stress (1 = <i>not at all stressful</i> , ..., 5 = <i>extremely stressful</i> )	2.93	1.02	3.00	0.97	2.84	1.09	0.001
Self-rated mental health (1 = <i>poor</i> , ..., 5 = <i>excellent</i> )	4.11	0.89	4.10	0.86	4.11	0.95	0.605
Relationship to care receiver							0.001
Children	5.7%	—	6.9%	—	4.2%	—	
Parents	35.1%	—	37.1%	—	32.5%	—	
Siblings	5.8%	—	6.4%	—	5.1%	—	
Other family	16.8%	—	14.7%	—	19.6%	—	
Others (e.g., friends, neighbors, co-workers)	26.2%	—	25.0%	—	27.8%	—	
Spouse (ref.)	10.3%	—	9.8%	—	10.9%	—	
Primary caregiver (1 = <i>yes</i> )	21.9%		26.3%	—	16.2%	—	0.001
Number of other caregivers	3.33	4.03	3.30	3.76	3.36	4.43	0.149
Age (in years)	58.12	9.59	58.08	9.25	58.18	10.12	0.208
Marital status							0.001
Cohabiting	8.2%	—	7.6%	—	9.1%	—	
Widowed	6.2%	—	9.0%	—	2.5%	—	
Separated or divorced	11.1%	—	13.8%	—	7.6%	—	
Never married	6.7%	—	6.9%	—	6.4%	—	
Married (ref.)	67.8%	—	62.6%	—	74.5%	—	
Living alone (1 = <i>yes</i> )	14.3%	—	16.9%	—	10.8%	—	0.001
Education (1 = <i>elem or less</i> , ..., 10 = <i>some post-graduate</i> )	6.08	2.87	6.01	2.69	6.18	3.13	0.344
Employment							0.001
Employed outside home	58.0%	—	53.2%	—	64.2%	—	
Others	12.9%	—	18.1%	—	6.2%	—	
Retired (ref.)	29.1%	—	28.7%	—	29.6%	—	
Household income							0.001
<\$30,000	12.4%	—	14.6%	—	9.6%	—	
\$30,000–59,999	24.2%	—	25.4%	—	22.5%	—	
\$60,000–99,999	22.9%	—	21.5%	—	24.7%	—	
Income missing	19.2%	—	21.4%	—	16.3%	—	
\$100,000 or more (ref.)	21.4%	—	17.2%	—	26.8%	—	
Activity limitation (1 = <i>yes</i> )	44.1%	—	44.0%	—	44.2%	—	0.815
Chronic illness (1 = <i>yes</i> )	54.4%	—	56.3%	—	52.0%	—	0.001
Care-recipient's age (in years)	71.45	17.51	71.54	17.15	71.34	18.09	0.365
Problems that require assistance							0.001
Mental	7.2%	—	7.7%	—	6.4%	—	
Both physical and mental	21.3%	—	23.0%	—	19.0%	—	
Something else	3.1%	—	3.3%	—	2.7%	—	
Physical (ref.)	68.5%	—	66.0%	—	71.9%	—	
Visit/see the care receiver							0.001
Less than once a month	5.6%	—	5.4%	—	5.9%	—	
At least once a month	16.9%	—	15.4%	—	18.9%	—	
At least once a week	48.3%	—	48.0%	—	48.6%	—	
Daily (ref.)	29.2%	—	31.3%	—	26.5%	—	
Length of care (in years)	5.86	7.59	5.84	7.41	5.89	7.86	0.875
N	6,140		3,782		2,358		

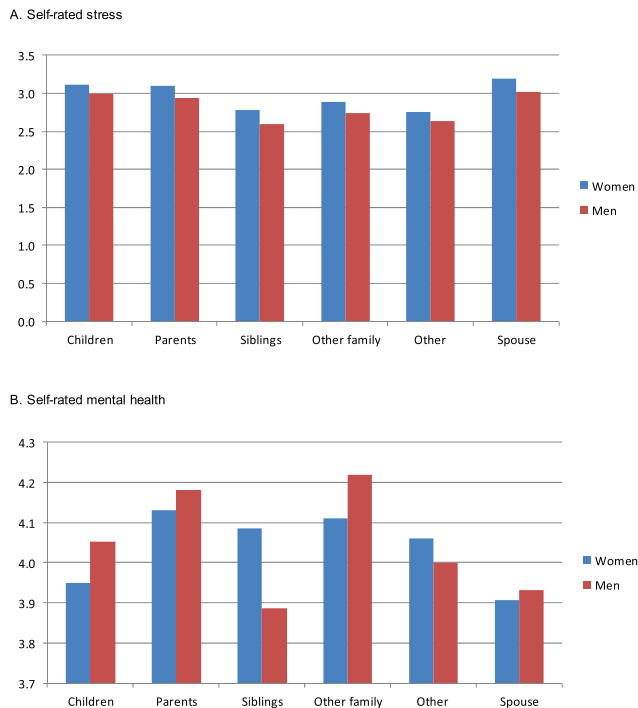
Notes: Weighted means or percentages, unweighted N.

<sup>a</sup>Significance tests of differences between women and men.

Source: The 2007 Canadian General Social Survey.

Turning to the control variables, we found that among both female and male caregivers, higher levels of self-rated stress were reported by primary caregivers, those

who were younger, employed, or engaged in other work-related activities (e.g., working inside the home, looking for work) rather than retired, and caregivers reporting



**Figure 1.** Mean level of self-rated stress and mental health by gender and relationship to care receiver. (A) Self-rated stress. (B) Self-rated mental health. *Source:*The 2007 Canadian General Social Survey.

activity limitations and chronic illness. Among female caregivers specifically, greater stress was also reported by those who were separated/divorced or never married (vs. married), those who did not live alone, those with moderate rather than high levels of household income, those providing care to meet mental health or both mental and physical health rather than physical health needs alone, and those who saw the care receiver daily rather than weekly or less often. Among male caregivers, those who had never married reported less stress than those who had married, low household incomes were associated with greater stress whereas moderate incomes were associated with reduced stress relative to those in the highest income group. Finally, those who provided care for longer period of time also reported greater stress.

Table 3 presents models in which self-rated mental health was regressed on relationship to the care receiver. Here, the findings revealed that among women, compared with those caring for a spouse, those caring for parents, siblings, other family members, or nonfamily members reported significantly better mental health. However, no differences were evident when comparing the mental health of caregivers to a spouse to that of caregivers to children. This was evident in both models. The findings differed considerably among men. Although caregivers to parents and to other family members also reported significantly better mental health than spousal caregivers prior to the introduction of control variables, these relationships were no longer significant following the introduction of control variables.

Instead, in Model 2, no significant differences were found when comparing the self-rated mental health of spousal caregivers to those caring for those in other familial or non-familial relationships.

With regard to the control variables, we found that among both female and male caregivers, higher levels of mental health were evident among those who had higher levels of education, those who were employed or retired rather than engaged in other work-related activities (e.g., working inside the home, looking for work), those with moderate or higher levels of household income, caregivers reporting no personal activity limitations or chronic illness, and caregivers not providing care to individuals with both physical and mental health needs. Among female caregivers, better mental health was also reported by those who were older. Among male caregivers, never married individuals reported poorer mental health whereas those providing care for older adults had better mental health. Those who saw their care recipients at least once a week also reported better mental health than those in the reference category (i.e., daily contact).

## Discussion and Conclusions

This article set out to examine the overall stress and mental health implications of the relationship of the caregiver to care receiver. Several findings appear notable. First, in general, the mean levels of self-rated stress reported by the middle-aged and older caregivers in our study were moderate while overall self-rated mental health was fairly high. Thus, notwithstanding the greater stress and poorer mental health that caregivers tend to report when compared with noncaregivers, it should be noted that based on our findings, their overall mental health appears to be fairly good.

Secondly, as suggested by previous literature, stress levels were somewhat greater among female than male caregivers. However, in contrast with frequently reported findings (including those based on the same measure as used here—e.g., Mawani & Gilmour, 2010) suggesting that women also tend to report poorer mental health than men, the female and male caregivers in our study appeared to have similar levels of self-rated mental health. The reason for this difference in findings is not immediately clear. Perhaps it reflects the age of the caregiving cohorts included in the present study. It has been noted for example, that age may attenuate the negative mental health implications of caregiving (Ha et al., 2008). Furthermore, findings pointing to a lack of gender differences in middle-aged or older parental caregivers' psychological well-being when caring for children with mental health or developmental disabilities introduce the possibility that age and type of caregiving may interact to reduce gender differences in the implications of caregiving. Finally, findings indicating that gender differences in psychological health are often small in magnitude (particularly when it comes to measures of subjective well-being rather than burden or depression—Pinquart and Sörensen, 2006) suggest that it

**Table 2.** Ordinary Least Squares Regression of Self-Rated Stress on Relationship to Care Receiver and Selected Characteristics: Canadians (Age 45+), 2007

Variable	Women		Men	
	Model 1	Model 2	Model 1	Model 2
Relationship to care receiver				
Children	-0.036	-0.150	0.155	-0.015
Parents	-0.050	-0.218**	0.027	-0.237*
Siblings	-0.408***	-0.413***	-0.415***	-0.411***
Other family	-0.269***	-0.339***	-0.218**	-0.385***
Others (e.g., friends, neighbors, co-workers)	-0.362***	-0.330***	-0.293***	-0.312***
Spouse (ref.)				
Primary caregiver (1 = yes)		0.109**		0.109*
Number of other caregivers		0.002		0.003
Age (in years)		-0.010***		-0.021***
Marital status				
Cohabiting		-0.049		0.116
Widowed		0.089		-0.035
Separated or divorced		0.174**		-0.077
Never married		0.260***		-0.229*
Married (ref.)				
Living alone (1 = yes)		-0.228***		0.112
Education (1 = elem or less, ..., 10 = some post-graduate)		0.011		0.012
Employment				
Employed		0.583***		0.550***
Others		0.288***		0.265**
Retired (ref.)				
Household income				
<\$30,000		-0.030		0.193*
\$30,000–59,999		-0.122*		-0.049
\$60,000–99,999		-0.196**		-0.143*
\$100,000 or more (ref.)				
Activity limitation (1 = yes)		0.248***		0.171***
Chronic illness (1 = yes)		0.212***		0.088*
Care-recipient's age (in years/100)		0.037		-0.046
Problems that require assistance				
Mental		0.159**		-0.035
Both physical and mental		0.239***		0.080
Something else		-0.035		0.193
Physical (ref.)				
Visit/see the care receiver				
Less than once a month		-0.251***		0.105
At least once a month		-0.166**		0.045
At least once a week		-0.087*		0.022
Daily (ref.)				
Length of care (in years/10)		-0.006		0.108***
Intercept	3.174***	3.216***	2.968***	3.684***
R squared	0.023	0.171	0.025	0.177
N	3,782	3,782	2,358	2,358

Notes: All models include a dummy variable for missing household income.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$  (two-tailed test).

Source: The 2007 Canadian General Social Survey.

may have something to do with the specific mental health or well-being dimensions assessed and/or measures used. Self-perceived mental health differences may well be absent among caregivers in middle and later life, despite differences

in related factors such as perceived stress, burden, or depression. Overall, these findings point to the need for research that addresses the joint implications of age, gender, and type of caregiving across different dimensions and using different



**Table 3.** Ordinary Least Squares Regression of Self-Rated Mental Health on Relationship to Care Receiver and Selected Characteristics: Canadians (Age 45+), 2007

Variable	Women		Men	
	Model 1	Model 2	Model 1	Model 2
Relationship to care receiver				
Children	0.016	0.008	0.061	0.088
Parents	0.273***	0.219***	0.228***	-0.004
Siblings	0.255***	0.245**	-0.028	-0.111
Other family	0.232***	0.173*	0.293*	0.087
Others (e.g., friends, neighbors, co-workers)	0.182***	0.143*	0.040	-0.068
Spouse (ref.)				
Primary caregiver (1 = yes)		-0.038		-0.015
Number of other caregivers		0.000		0.001
Age (in years)		0.008***		0.002
Marital status				
Cohabiting		-0.028		0.017
Widowed		-0.080		-0.198
Separated or divorced		-0.059		-0.088
Never married		-0.111		-0.262**
Married (ref.)				
Living alone (1 = yes)		0.088		-0.020
Education (1 = elem or less, ..., 10 = some post-graduate)		0.018***		0.039***
Employment				
Employed		-0.012		-0.065
Others		-0.135**		-0.272**
Retired (ref.)				
Household income				
<\$30,000		-0.317***		-0.179*
\$30,000-59,999		-0.120**		-0.043
\$60,000-99,999		-0.065		-0.005
\$100,000 or more (ref.)				
Activity limitation (1 = yes)		-0.328***		-0.205***
Chronic illness (1 = yes)		-0.175***		-0.217***
Care-recipient's age (in years/100)		-0.023		0.345*
Problems that require assistance				
Mental		-0.090		-0.072
Both physical and mental		-0.092**		-0.110*
Something else		0.185*		-0.089
Physical (ref.)				
Visit/see the care receiver				
Less than once a month		-0.034		0.089
At least once a month		0.064		0.070
At least once a week		-0.019		0.128*
Daily (ref.)				
Length of care (in years/10)		0.001		-0.047
Intercept	3.905***	3.832***	3.963***	3.776***
R squared	0.011	0.105	0.017	0.116
N	3,782	3,782	2,358	2,358

Notes: All models include a dummy variable for missing household income.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$  (two-tailed test).

Source: The 2007 Canadian General Social Survey.

measures of mental health. In the interim, however, they also point to a need for caution when it comes to assumptions regarding the generalizability of results obtained using different concepts and measures.

Third, whereas our bivariate analyses revealed that caring for primary kin (i.e., spouse, parents, and children) was associated with greater self-reported stress than was caring for other family members or nonfamily others (such

as friends, neighbors, or coworkers), multivariate regression models revealed that for both female and male caregivers, caring for a spouse and caring for children were associated with greater self-reported stress than was caring for parents, siblings, other family members, or others. For female caregivers only, caring for a spouse or children was also associated with poorer mental health. These findings support conclusions regarding the comparatively problematic nature of spousal caregiving (Litwin et al., 2014; Pinquart & Sörensen, 2011) and suggest that this applies to parental caregiving as well. This is consistent with findings recently reported by Litwin and colleagues (2014) and also, with inferences drawn from theoretical accounts of structural ambivalence suggesting that primary kinship ties are the most likely to generate ambivalence (and thus, its mental health implications) due to the greater obligation to provide care and, given the nature of the relationship, the fewest options to resist this pressure (Fingerman, Hay, & Birditt, 2004).

The finding that the adverse implications of caring for a spouse and children were most consistently evident among middle-aged and older women also appears consistent with inferences derived from arguments that within kin relationships, gender and other factors (e.g., age) are also likely to influence caregiving obligations, the ability to resist, and therefore, their implications for stress and mental health. That is, insofar as such women are more likely to confront structural ambivalence due to greater pressure to provide care and more limited ability to resist (Connidis & McMullin, 2002a), they are the most likely to experience the negative psychological implications that result. These findings, as well as those discussed above, provide preliminary evidence that supports further research into the nature and implications of structural ambivalence for caregiving relationships other than those involving middle-aged children and their older parents, as is currently the case. Specifically, there appears a need for research to directly assess relationships between type of caregiving relationship, perceptions of ambivalence, and their impact on stress and mental health.

A major strength of our analyses was the inclusion of multiple caregiving relationships. However, a number of limitations should also be noted. For example, although findings indicating poorer mental health among spousal caregivers and caregivers of children than caregivers of parents or others is consistent with previous research (Pinquart & Sörensen, 2011), lack of data on caregiver-care receiver coresidence prevented assessment of the extent to which this might reflect differences in residential propinquity (Siegler, Brummett, Williams, Haney, & Dilworth-Anderson, 2010). On the other hand, the fact that we did include caregiver living arrangements (lived alone vs. not alone) as a covariate suggests this is unlikely. In addition, we were unable to consider some potentially important but small or complex kinship profiles (e.g., differences between children and children-in-law as caregivers, variation by number of children

or siblings) or complex caregiving profiles (e.g., caring for more than one person). Our analyses were also restricted to using two single-item indicators to assess stress and mental health. A broader selection of indicators, including multiple-item measures focusing on burden as well as other aspects of mental health (both self-assessed and behavioral), could further strengthen the analyses and also allow for further consideration of linkages among the various components. Finally, although we constructed our analyses and interpreted our results in accordance with recent theorizing on structural ambivalence, we did not assess perceived ambivalence directly.

These and other limitations call for further research to be conducted. However, notwithstanding such limitations, the findings reported here are notable in arguing for the differential implications of caregiving for the mental health of spouses, parents, children, and other caregivers. Increasing pressure on family members to meet the long-term care needs of other family members is extremely attractive to governmental and other authorities seeking to limit or reduce the economic resources allocated to health care. However, it is important to factor in the costs of these decisions for informal caregivers, including costs to stress levels and overall mental health. Such impacts may significantly undermine the health, functioning, and quality of life of caregivers and consequently, might also lead to costly increases in hospitalization and institutionalization for care recipients (Viana et al., 2013). In addition, evidence of structural inequities in the implications of care provision point to the need to pursue a more equitable sharing and for enhancing the resources available to facilitate this role.

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