Marital Status, Childlessness, and Social Support among Older Canadians*

Margaret J. Penning and Zheng Wu
Department of Sociology, University of Victoria

RÉSUMÉ

Malgré les preuves de la diversification croissante des structures familiales, on connaît peu de conséquences de l'état matrimonial et parental pour l'accès à l'aide sociale dans la vie plus tard. En utilisant les données de l'Enquête sociale générale de 2007 de Statistique Canada, cette étude a évalué l'impact des intersections de l'état matrimonial et parental sur le soutien social chez les adultes âgés de 60 ans et plus (n = 11 503). Modèles probit de regréssion en deux étapes ont indiqué que, parmi ceux qui sont actuellement mariés ou séparés/divorcés, les personnes sans enfants étaient plus susceptibles de déclarer un soutien instrumental (domestique, transport) et émotionnel des personnes hors du ménage. A l'inverse, chez les personnes âgées célibataires ou veuves, être sans enfant a été associée à du soutien interne réduit, mais sans différences dans un autre support. Les résultats suggèrent que les intersections de l'état matrimonial et parental ne sont pas uniformément positive, neutre ou négative à l'égard des implications pour le soutien social extra-ménage. Les travaux futures devraient répondre à la complexité de ces relations afin de mieux comprendre les structures familiales qui évoluent rapidement.

ABSTRACT

Despite evidence of increasing diversification of family structures, little is known regarding implications of marital and parental status for access to social support in later life. Using data from Statistics Canada's 2007 General Social Survey, this study assessed the impact of marital and parental status intersections on social support among adults aged 60 and older (*n* = 11,503). Two-stage probit regression models indicated that among those who were currently married or separated/divorced, childless individuals were more likely to report instrumental (domestic, transportation) and emotional support from people outside the household. Conversely, among never-married or widowed older adults, being childless was associated with reduced domestic support but without differences in other support domains. Findings suggest that marital and parental status intersections are not uniformly positive, neutral, or negative regarding implications for extra-household social support. Future work should address complexities of these relationships in order to better understand rapidly changing family structures.

Correspondence and requests for reprints should be sent to / La correspondance et les demandes de tirés-à-part doivent être adressées à:

Margaret Penning, Ph.D.
Department of Sociology
University of Victoria
PO Box 1700 STN CSC
Victoria, BC V8W 3P5
(mpenning@uvic.ca)

North American and other developed countries are currently witnessing the aging of the population together with significant changes in family structure and relationships. As a result of recent declines in marriage and childbearing – as well as increases in cohabitation, divorce, remarriage, and step- and lone-parenthood – we are seeing an increasing diversification of family structures (Chappell & Funk, 2011; Glaser, Stuchbury, Tomassini, & Askham, 2008; Milan, Vezina, & Wells, 2007). For example, from 2001 to 2013, the proportion

of Canadians aged 65 and older who were currently married increased only slightly (from 54.5% to 55.7%). In contrast, the percentage living in common-law relationships almost doubled (from 1.8% to 3.5%), and the proportion who reported being separated or divorced also increased significantly (6.8% to 9.9%) (Statistics Canada, 2013). Among incoming senior cohorts (those aged 45–64 in 2013), the proportions were even higher: 10.7 per cent were living as common-law, whereas 14.5 per cent were divorced or separated. In addition, they were more than twice as likely to have never married (11.0% compared to only 5.2% of those aged 65+; Statistics Canada, 2013). Currently, from 12 to 13 per cent of Canadian cohorts born between 1925 and 1944 are childless (Dykstra, 2009; Ravanera & Beaujot, 2014)[1]. However, whereas all but the oldest old (aged 85+) today belong to cohorts with historically low levels of childlessness in Canada as well as many other countries (Dykstra, 2009; Rowland, 2007), the proportion of older adults that is childless is expected to increase significantly in coming years, particularly over the longer term as baby boomers and their children age (Lin & Brown, 2012). For example, Carrière et al. (2008) projected that the proportion of Canadian women aged 65 and older without any surviving children will increase from 16 per cent in 2001 to a high of 30 per cent in 2051.

The rapid demographic growth of an increasingly diverse older adult population raises important questions about their current and future well-being, including the continued ability of informal support networks – family, friends, and others – to provide high levels of support (Carrière et al., 2008). On the one hand, it is commonly believed that decreasing availability and increasing rejection of traditional family roles and relationships mean that families will become less supportive of one another (Glaser et al., 2008). Consistent with this view, being unmarried and/or childless have been linked to a number of negative outcomes, including social isolation and disruptions to social support (Dykstra, van Tilburg, & de Jong Gierveld, 2005; Victor, Scambler, Bowling, & Bond, 2005). However, other researchers are critical of continued reliance on normative assumptions regarding the primacy of the nuclear family (e.g., Cotterill, 1994), contending that older adults actively manage their social ties and that with increasing acceptance of divorce and of diverse family forms, the negative implications of such changes for support in old age may be disappearing (Glaser et al., 2008, p. 330; Thornton & Young-DeMarco, 2001). Consistent with this latter view, there is also evidence to suggest that unmarried and/or childless individuals fare better than traditionally assumed (e.g., Connidis & McMullin, 1994).

However, despite theoretical and empirical reasons to question the validity of longstanding assumptions, to date, limited research attention has been directed to the joint implications of marital and parental status for social support. For example, never married and childless older adults have been described as invisible within social science literature (Dykstra & Hagestad, 2007a). Yet even less appears to be known regarding previously married (i.e., widowed, divorced) childless older adults. This study addresses these gaps in our knowledge about the growing unmarried and childless populations, focusing on the impact of intersections involving marital and parental status for informal support from individuals living outside the household in later life.

Review of the Literature
Marital Status and Social Support

A review of the empirical literature supports the view that marriage is central to social support and the receipt of care in later life. It is well-documented, for example, that older people prefer to remain living independently in the community as they age, and that spousal relationships play a major role in facilitating this, particularly in terms of the provision of informal support and care as health declines (Walker & Luszcz, 2009). Spouses, if available, are reported to be the most likely to provide instrumental forms of support and assistance and to do so during periods of greater illness and disability than any other support provider (Feld, Dunkle, Schroepfer, & Shen, 2006; Lima, Allen, Goldscheider, & Intrator, 2008; Walker & Luszcz, 2009). In addition, married individuals are likely to name their spouse as a confidante or source of emotional support, particularly among men (Chappell, McDonald, & Stones, 2010).

Given the widely acknowledged importance of the spouse for access to and the receipt of support, it is frequently assumed that never married as well as previously married (widowed, divorced) older adults are likely to be disadvantaged relative to those who are married (Chappell & Funk, 2011; Keith, 2003; Keith, Kim, & Schafer, 2000). Whether this is actually the case, however, remains unclear. To date, most of the research attention has been on comparisons of the structural aspects of social and/or helping network ties – including network size and composition – rather than on differences in functional support. In addition, studies comparing currently married to never-married and/or previously married (widowed, divorced) older adults with regard to functional dimensions of support generally focus on the support received from children. Consequently, little is known regarding the comparative implications of being currently married versus never married and/or previously married (widowed, divorced) without children. Finally, available results

are inconsistent. Whereas most report a negative association between parental divorce or widowhood and assistance received (e.g., see Curran, McLanahan, & Knab, 2003; Pezzin & Schone, 1999), some report a positive relationship, especially with regard to the relationship between widowhood (compared to marriage) and the receipt of assistance from children (Ha, Carr, Utz, & Nesse., 2006), particularly among women (Glaser et al., 2008).

Parental Status and Social Support

Despite some indications that marital status may be more influential than parental status when it comes to social support (Connidis & McMullin, 1994; Wenger, Dykstra, Melkas, & Knipscheer, 2007), the primary importance of children for the provision of support in later life is widely noted (Basten, 2009; DeOllos & Kapinus, 2002; Wenger, Scott, & Patterson, 2000; Zhang & Hayward, 2001). Childless individuals are generally assumed to fare less well at older ages than parents, presumably because they lack the critical social support represented by the presence of children in the informal network (Choi, 1994).

To a considerable degree, empirical literature appears to support to this view, particularly with regard to structural dimensions of support (e.g., see Grundy & Read, 2012; Koropeckyj-Cox, 1998; McMullin & Marshall, 1996) such as support network size (Dykstra, 2006, 2009; Dykstra & Wagner, 2007; Wenger et al., 2000). Fewer studies have directly compared older parents and childless adults with regard to functional dimensions of support (Silverstein & Giarrusso, 2010). Some evidence suggests that childless elders may be able to compensate for the disadvantage of having smaller familial networks by having better access to other resources, including "social alternatives to children" (Silverstein & Giarrusso, 2010, p. 1043; also see Dykstra & Wagner, 2007). For example, it has been reported that childless elderly individuals often have higher levels of involvement with siblings, friends, and other age peers (Campbell, Connidis, & Davies, 1999; Connidis & Davies, 1990; Connidis & McMullin, 1992; Cornwell, Laumann, & Schumm, 2008; Dykstra & Hagestad, 2007a; Wenger et al., 2007). Similarly, non-kin have been noted to be more likely to help out childless older adults than they are those with children available (Wenger, 1984). However, others report findings indicating that the absence of either a partner or a child relationship tends not to be "fully compensated by the (instrumental) support received from other types of network members" (Broese van Groenou & van Tilburg, 1997, p. 39). As a result, despite alternative resources for care, childless older adults remain disadvantaged relative to older parents (e.g., see Grundy & Read, 2012; Larsson & Silverstein, 2004).

Marital Status, Parental Status, and Social Support

Whereas most research has tended to focus on the comparative advantages and disadvantages of having or not having children, others have suggested that the meaning, experience, and consequences of childlessness are likely to vary (Umberson, Pudrovska, & Reczek, 2010), and thus, it is important to acknowledge the heterogeneity of the childless experience in old age (Dykstra & Wagner, 2007; Wenger et al., 2007). According to Dykstra (2009), for example, it is the intersection of parental and marital status that is especially important to consider.

Dykstra (2009) suggested that being childless is a source of vulnerability particularly in the absence of a partner (also see Keith, 2003; Wu & Pollard, 1998). To date, however, empirical support for this view remains limited. Despite some supportive evidence (Albertini & Mencarini, 2014; Dykstra & Hagestad, 2007b), other findings suggest that unmarried childless elders generally fare better than those who are married and childless. According to an early study by Johnson and Catalano (1981), for example, those who were not married (i.e., never or previously married) were found to be "more resourceful in using a long-term accumulation of social resources to meet their needs" (p. 610), whereas married childless individuals (especially men) tended to be more isolated and to rely primarily on each other (see also Wenger et al., 2000, 2007). Similarly, Wenger (1984) reported findings indicating that, unlike married individuals, single childless elderly women appear more likely to receive support from a wide range of network members and particularly from siblings and their siblings' families (see also Campbell et al., 1999; Connidis & McMullin, 1994; Larsson & Silverstein, 2004; Wenger et al., 2007). Older people who are not married or who have few or no children also appear more likely than the married to have non-kin in their support networks (Keating, Otfinowski, Wenger, Fast, & Derksen, 2003).

Important differences, however, may exist among those who are not married. For example, some researchers point to the particular vulnerability of the never married (e.g., Keith, Kim, & Schafer, 2000). On the other hand, evidence also suggests that never-married childless adults, particularly women, tend to be socially active and are more likely to belong to social groups compared to older married women with children (Cwikel, Gramotnev, & Lee, 2006; Dykstra, 2009; Johnson & Catalano, 1981; Wenger et al., 2000; Wenger et al., 2007). Wenger (2009) contended that findings indicating the greater assistance coming from non-kin to childless older adults may reflect the greater self-sufficiency of those who never married. They also appear among the most likely to receive support from

siblings (Wenger et al., 2000; 2007). In contrast, other researchers point to the greater vulnerability of previously married (widowed, divorced/separated) than of never-married childless individuals. According to Wenger et al. (2000), this ultimately stems from the greater vulnerability attached to being married than unmarried and childless: "childless married couples tend to have local self-contained or private restricted support networks, which are vulnerable when a partner dies or both become frail" (p. 179). However, others attribute it to the effects of divorce or widowhood in eroding the support network (Connidis, 2010). Finally, still other researchers point to similarities between previously married and never-married childless individuals, suggesting that they tend to develop and benefit from similar patterns of interaction with relatives and friends (e.g., Johnson & Catalano, 1981; also see Larsson & Silverstein, 2004; Wu & Pollard, 1998).

Present Study

The aforementioned review suggests a need to focus attention on the implications of marital and parental status intersections for the receipt of social support in later life. Research conducted to date reveals considerable support for the importance of a spouse and children for support received in later life. However, studies that focus directly on the joint implications of marital and parental status on social support are limited (Wu & Pollard, 1998) and, where available, rarely consider intersections across all major marital/parental status groups simultaneously. As a result, the comparative advantages and disadvantages of having or not having children among currently married, never-married, and previously married (widowed or divorced) older adults remains unclear. Studies frequently focus on structural rather than functional dimensions of support. In addition, where functional aspects of support have been addressed, limited attention has been focused on the receipt of various types of support (instrumental, emotional).

To address these gaps, this study drew on national survey data to examine the effects of marital and parental status intersections on extra-household social support received by older adults living independently in the community. Two research questions were examined: (1) What impact does parental status (childless, not childless) have on the functional social support received from non-household members across marital status groups? (2) Does this vary depending on the type of functional support involved? In particular, does it differ with regard to various types of instrumental support (e.g., help with household tasks, transportation) that tend to be required as health declines and emotional support that tends to be less clearly associated with declining health?

In asking these questions, we were interested not only in contributing to empirical literature in the area but also to theoretical debates regarding the importance of marital and parental status for social support in later life. In particular, we were interested in assessing support for the implications of two competing theoretical positions. The first, exemplified by Cantor's (1975, 1979) hierarchical compensatory or social care (Cantor, 1991; Cantor & Little, 1985) perspective, considers unmarried and/or childless older adults to be disadvantaged when it comes to the receipt of social support because they lack access to some of the most important and normatively preferred sources of support. For example, several decades ago, Cantor argued that older adults' preferences for support tend to follow a normatively defined sequential hierarchy based on the primacy of their relationship with potential support providers. Within this hierarchy, kin and, especially, the nuclear family unit (i.e., spouse, followed by children, siblings, and other relatives) were said to represent the most preferred sources of support, regardless of the type of support involved, followed by friends, neighbours, and finally, by formal organizations.

If and when more preferred sources of support were unavailable, ties lower in the hierarchy were said to substitute for the missing relationships. However, substitution was not considered inevitable but, rather, dependent upon the prior existence of a "functional" relationship (i.e., one characterized by close proximity, frequent/regular contact, ability to provide the support required). Consequently, not only were spouseless and/or childless elders considered likely to represent potentially at-risk groups, but also siblings, friends, and neighbours were viewed as not being able to be counted on to provide the same types and levels of support and care provided by kin, particularly within the context of the nuclear family structure (Cantor & Little, 1985).

In contrast with assumptions of normatively ordered substitution and the primacy of the nuclear family, more recent theoretical perspectives have argued that older adults actively manage their social ties in order to meet the challenges of aging. For example, the functional specificity model, as outlined by Simons (1983–84), suggests that social relationships are negotiated over time and that they tend to be functionally specific. However, functions are not specific to social ties (Connidis, 1994). Along somewhat similar lines, Kahn and Antonucci's (1980) convoy model conceptualizes individuals as being embedded within a convoy with whom they exchange instrumental and emotional support – one that is established early on but that is dynamic and continually changing – over the life course (e.g., see Antonucci, 1985, 1986, 1990; Antonucci & Akiyama, 1987). The convoy model, too, "makes no

a priori assumptions regarding the specific relations comprising an individual's social network" (Levitt, 2005). Instead, the structure and supportive functions of the convoy at any given time are thought to be the product of personal and situational characteristics that affect the individual's need for support. Thus, social network substitution occurs throughout the life course, as individuals lose network members (due to death, residential relocation, etc.) and add new network members in response to such losses (Antonucci, 1985).

The implications of the two theoretical positions for an understanding of the impact of marital and parental status intersections differ. For example, whereas the hierarchical compensatory model suggests that those without a spouse and /or children available will tend to be disadvantaged when it comes to the receipt of social support, models founded on the view that social roles are flexible in function and that older individuals actively negotiate/construct their support networks to meet changing needs suggest a more positive scenario. That scenario is one implying that over the life course, unmarried childless older adults – regardless of whether they be never married, widowed, or divorced – will actively construct their support convoys to ensure the availability of support when needed. Consequently, if the former view is correct, we would expect to find that older adults with a spouse and children available will fare better when it comes to social support than those without a spouse or children available (i.e., spouse available/no children, no spouse/children available). However, one of the reasons they will do better is because they have access to spousal (thus intra-household) support. When it comes to support from non-household members only, this view nevertheless suggests that childless individuals regardless of marital status will likely be disadvantaged relative to those with children. Those with neither a spouse nor children available will do less well although there appears to be little or no basis for predicting differences among never-married and previously married (separated/divorced, widowed) individuals without children.

Conversely, if the latter view is correct, it is the composition of the support network rather than the likelihood of support itself that is likely to differ, and we would therefore expect to find few if any differences in the availability of support to older adults within any of the marital/parental status groups.

Data and Methods

To address these issues, we constructed multivariate regression models estimating the effects of parental status on support within differing marital status groups.

Thus, our study population included all elderly persons, regardless of their marital or parental status.

Data Source and Sample

The study used data from the 2007 Canadian General Social Survey, Cycle 21 (GSS-21), conducted by Statistics Canada. The GSS is an annual national (cross-sectional) survey that collects individual- and household-level data on Canadian adults to monitor social conditions and the well-being of Canadians and to provide information on social policy issues of current or emerging interest (Statistics Canada, 2009). Aside from collecting basic demographic and socioeconomic data, each cycle of the GSS has a specific thematic focus, such as family, time use, or victimization. The thematic focus of the GSS-21 was social support and aging. It collected detailed data on social support, health conditions, family history, retirement planning and experience, as well as standard demographic and socioeconomic variables.

The target population of the GSS-21 included Canadians aged 45 and older living in all 10 provinces, excluding the northern territories as well as full-time residents of institutions. The survey was conducted through telephone interviews. Households without telephones were excluded, but represented only 0.9 per cent of the target population (Statistics Canada, 2009). Households with cellular phone service only were also excluded; they represented 6.4 per cent of the target population. The exclusion of the households that did not have landline phone service is a limitation of the study. However, research has shown that the cellular-phone-only household is more common among low-income and/or young adult households (Blumberg & Luke, 2007, 2008). Given our study population, this exclusion is unlikely to significantly bias our regression estimates. Nevertheless, caution is called for when generalizing the results of our study to the entire study population.

The GSS-21 included a nationally representative sample of 23,404 Canadians aged 45 and older, with an overall response rate of 57.7 per cent. To study social support among older adults, we limited our study sample to individuals who were age 60 or older. As the study focused on marital and parental status, we removed cases where we could not identify the respondents' marital or parental status ($n = 50$). In unreported analysis, we found that those who were missing data on marital or parental status did not differ in the response variables from the rest of the sample. With these restrictions, the final study sample included 11,494 respondents who were age 60 or older living in private households at the time of the survey.

Measures

The study focused on social support. Social support is a broad and complex concept that has been variously defined and operationalized (Cohen, Gottlieb, & Underwood, 2000; Gottlieb & Bergen, 2010; Haber, Cohen, Lucas, & Baltes, 2007). Here we used a functional definition of social support that emphasized "the social resources that persons perceive to be available or that are actually provided to them by nonprofessionals in the context of … informal helping relationships" (Cohen et al., 2000, p. 4). Specifically, we focused on two dimensions of support perceived or received from non-household members: instrumental and emotional support. We created three dummy variables to indicate whether respondents reported support in the areas of domestic help, transportation assistance, and emotional support.

To measure domestic support, we drew on responses to the following question: "In the past 12 months, did anyone help you by doing domestic work, home maintenance, or outdoor work?" Respondents were instructed to focus on unpaid help and to exclude both help provided by those living with them and help provided by organizations. Taking into account whether respondents needed assistance is also important (Taylor, 1990). Therefore, respondents who provided a negative response (indicating that they did not need help) were then asked, "(In the past 12 months), if you had needed help (with these activities), would you have had someone to turn to for help with (domestic work, home maintenance, or outdoor work)?" Using the responses to both of these questions, we then created a dummy variable, contrasting those who provided a positive response to either question to those who did not.

The measure of "providing transportation or running errands" was based on similar questions in the GSS-21. We used the responses to these questions, which were identical to those for domestic work, to create a dummy variable, indicating whether or not the respondent received such help in the past 12 months (including those who did not receive such help but had someone to turn to if such help was needed).

The measure of emotional support was based on responses to a single question: "In the past 12 months, did anyone help you by giving you emotional support?" Again, we created a dummy variable to indicate receipt or non-receipt of emotional support in the past year. Also, respondents were once again instructed to focus on unpaid help and to exclude help provided by those living with them as well as that provided by organizations.

The extent of non-response (missing data) to the social support questions was generally low (2.7% for domestic assistance, 2.2% for transportation assistance, and 1.1% for emotional support). In unreported analysis, we found that the likelihood of missing data on each of the response variables was unrelated to marital and parental status, our primary independent variables. Cases with missing values on response variables were removed from the regression analyses.

The primary independent variables were marital and parental status. Marital status at the time of interview was measured as a four-level categorical variable: (a) married or cohabiting, (b) separated or divorced, (c) widowed, and (d) never married. Prior research demonstrates that cohabitation has become a common path of entry into conjugal relationships (Kennedy & Bumpass, 2008; Kerr, Moyser, & Beaujot, 2006), although cohabitation often appears indistinguishable from marriage when it comes to the receipt of social support and other outcomes (Penning & Wu, 2013; Schimmele & Wu, 2011; Wu & Hart, 2002). Due to small cell counts, it was not feasible to estimate separate regression models for cohabiters. We therefore included a dummy indicator for cohabiting status (1 = yes) in the models for married and cohabiters. Similarly, parental status is also a dummy variable, contrasting those who were childless (1 = yes) to those who had ever had or raised a child.

Throughout the analyses we also controlled for other demographic factors (i.e., age, gender, number of siblings, visible minority status, length of residence), socioeconomic indicators (educational attainment, employment status, household income, home ownership), and health status variables (self-reported health, activity limitations, chronic illness) known to influence social support (e.g., Albertini & Mencarini, 2014; Broese van Groenou & van Tilburg, 1997; Cantor & Little, 1985; Feld et al., 2006; Glaser et al., 2008; Grundy & Read, 2012; Gurung, Taylor, & Seeman, 2003; Keith et al., 2000; Larsson & Silverstein, 2004; Wu & Pollard, 1998). We considered three socio-demographic control variables. Respondents' gender was a dummy indicator (1 = female). Age was measured as a three-level categorical variable: 60–64, 65–74, and 75 and older. Visible minority status was also included as a dummy variable (1 = visible minority), indicating whether the respondent belonged to a visible minority grouping (e.g., Black, Chinese, Filipino, Japanese, Korean, South Asian-East Indian, Southeast Asian, non-White West Asian, North African or Arab, non-White Latin American, person of mixed origin, and other visible minority groups). Finally, four variables were used to assess the availability of social ties: number of siblings (coded 0 through 4+), living arrangements (1 = alone, 0 = not alone), whether or not the respondent had most of their relatives living in the same city/region (1 = yes), and whether or not

they had most of their friends living in the same city/region (1 = yes).

We considered five socioeconomic variables. Educational attainment was a 5-level categorical variable, ranging from less than high school education to bachelor's degree or higher. Employment was coded into three categories: employed outside the home, retired, and other (i.e., looking for work, caring for children, or engaged in household work). Household income was also a four-level categorical variable, ranging from less than \$30,000 to \$100,000 or more. Home ownership was a dummy variable (1 = yes), and length of residence was measured as years of living in the current residence (ranging from 1 [less than 6 months] to 6 [10 years or more]).

Finally, we included three health status indicators. Self-reported health is known to be a robust indicator of general health for the general and elderly population (e.g., Idler & Benyamini, 1997). It was measured as an ordinal variable ranging from *poor* (1) to *excellent* (5). Activity limitation was a dummy variable, indicating whether the respondent was limited in the amount/kind of regular activity at home, work, or in other activities due to a physical or mental condition, or health problem (1 = yes). The presence of chronic conditions was also a dummy variable (1 = yes), indicating the presence of any chronic condition (e.g., arthritis or rheumatism, back problems, diabetes, Alzheimer's disease, heart disease, or cancer).

Missing data on the control variables were minimal (less than 2.5%), except for household income where data were missing for 30 per cent of the study sample. To avoid substantial reduction in sample size, we created a dummy variable for missing data on income. In our analyses, we removed cases with missing data on the other control variables.

Statistical Models

Our empirical analysis began with investigating the issue of endogeneity of parental status, our main independent variable. To our knowledge, no prior studies have taken into consideration such a potential selection bias in the examination of the effects of marital and parental status on social support. It is well-known, however, that parenthood is endogenous because not everyone chooses to become a parent (e.g., Veevers, 1980). Older persons who are childless are even more selective (e.g., Rubinstein, Alexander, Goodman, & Luborsky, 1991; Wu & Pollard, 1998). If the decision to remain childless is correlated with social support, then the effect of parental status on social support may be biased (see Greene, 2012). For instance, if individuals who choose to become a parent are more outgoing and sociable, and these attributes are also associated with

an increased likelihood of receiving social support when needed, then the potential positive effect of being a parent may be overestimated. By the same token, if people who remain childless tend to be more introspective and solitary and develop a limited circle of relationships, then the potential negative effect of being childless can also be overstated.

To correct for the potential selection bias, using the maximum likelihood method, we estimated two simultaneous (seemingly unrelated bivariate) probit models (an "outcome" model and a "selection" model) that allow for a correlation of the error terms from the two models (Maddala, 1983). Such models typically assume that there exists an underlying relationship for the outcome variable (y_1)

$$y_{1i}^* = x_{1i}\beta_1 + u_{1i} \qquad (1)$$
$$y_{1i} = 1 \;\; if \;\; y_{1i}^* > 0$$
$$y_{1i} = 0 \;\; \text{otherwise}$$

where y_1^* is a latent dependent variable (receipt of support); x_1 is a vector of co-variates; β_1 is a vector of regression coefficients associated with x_1; and u_1 is an error term. There is a similar setup for the selection (into non-marriage and childlessness):

$$y_{2i}^* = x_{2i}\beta_2 + u_{2i} \qquad (2)$$
$$y_{2i} = 1 \;\; if \;\; y_{2i}^* > 0$$
$$y_{2i} = 0 \;\; \text{otherwise}.$$

From Equations (1) and (2), the error terms u_1 and u_2 are assumed to be jointly normally distributed with a mean of zero, variance of one, and a correlation of ρ. When $\rho = 0$, the single outcome equation is unbiased. When $\rho \neq 0$, the regression estimate on the treatment (childlessness) is likely biased (Greene, 2012). When $\rho > 0$, the estimated effect of childlessness from a standard single-equation model is generally biased away from zero. The converse is true when $\rho < 0$.

In Equation (1), x_1 included the independent variables shown in Table 1. In Equation (2), x_2 comprised a somewhat different set of co-variates, including gender (1 = female), age (as a continuous variable), minority status, education (as a 10-level ordinal variable), religion (in 4 levels), and region (1 = Quebec, 0 = elsewhere in Canada), as well as an interaction term of gender and education (see, e.g., Goldscheider & Waite, 1986; Pollard & Wu, 1998; Thornton, Axinn, & Xie, 2007). Although not necessarily required, choosing a somewhat different set of co-variates for the selection equation helps identify the effect of the "treatment" variable (parental status) in the outcome equation (Amemiya, 1985; Greene, 2012). There was clear evidence confirming the selection effect of childlessness in modeling social support (see Tables 2–4). We present the regression

Table 1: Descriptive Statistics of the Variables Used in the Regression Models: Older Canadians (Age 60+)

Variable	Married or Cohabiting M or %	Separated or Divorced M or %	Widowed M or %	Never married M or %	p-value
Domestic assistance (1 = yes)[a]	70.7%	66.4%	68.3%	67.2%	0.007
Transportation (1 = yes)[a]	84.7%	84.3%	85.5%	81.2%	0.127
Emotional support (1 = yes)[a]	34.9%	48.2%	49.7%	42.9%	<.0001
Childless (1 = yes)	8.3%	8.9%	6.1%	91.5%	<.0001
Cohabiting (1 = yes)	5.8%	–	–	–	
Female (1 = yes)	44.0%	62.5%	81.3%	58.6%	<.0001
Age					<.0001
60-64	33.8%	39.0%	7.5%	29.9%	
65-74	42.4%	42.0%	26.6%	41.1%	
75 or older	23.8%	18.9%	65.9%	29.1%	
Number of siblings (0, 1, …, 4+)	2.33	2.39	2.03	2.29	<.0001
Living alone (1 = yes)	–	75.1%	73.4%	72.6%	<.0001
Visible minority (1 = yes)	6.5%	7.4%	4.3%	8.7%	<.0001
Most relatives live in the same city/region (1 = yes)	42.9%	43.2%	42.0%	42.6%	0.874
Most friends live in the same city/region (1 = yes)	76.9%	76.1%	74.7%	74.7%	0.145
Education					<.0001
Less than HS	34.1%	33.6%	50.9%	32.0%	
HS	15.8%	15.6%	16.1%	15.1%	
Some post-secondary	8.8%	10.6%	7.5%	8.2%	
College/trade school	20.9%	22.6%	15.9%	20.7%	
Bachelor's or higher	20.5%	17.5%	9.6%	24.1%	
Employment					<.0001
Employed	21.2%	26.6%	5.1%	16.1%	
Others	12.5%	14.8%	20.4%	11.1%	
Retired	66.3%	58.7%	74.5%	72.8%	
Household income					<.0001
<$30,000	15.1%	43.8%	34.5%	30.1%	
$30,000-59999	31.0%	22.0%	17.7%	26.6%	
$60,000-99,999	15.3%	8.5%	6.3%	7.2%	
$100,000 or more	10.2%	4.1%	2.5%	2.2%	
Income missing	28.4%	21.7%	39.0%	33.9%	
Home ownership (1 = yes)	89.3%	54.5%	67.5%	56.8%	<.0001
Length of residence (1 = < 6 months, …, 6 = 10 years or more)	5.40	2.39	5.12	5.22	<.0001
Self-reported health (1 = poor, …, 5 = excellent)	3.43	3.32	3.19	3.21	<.0001
Activity limitation (1 = yes)	53.7%	55.9%	65.3%	58.7%	<.0001
Chronic illness (1 = yes)	60.2%	64.8%	68.8%	59.2%	<.0001
N	6,089	1,576	3,192	637	

[a] **See text for details.**
Note: **Weighted means or percentages, unweighted N.**
Source: **The 2007 Canadian General Social Survey.**

estimates from the outcome models in Tables 2–4 and the regression estimates from the selection models in Appendix A. To examine model adequacy, we also investigated various model assumptions (e.g., outliers, multicollinearity) and found no evidence of violation of the assumptions (see Appendices B and C). Correlations among the explanatory variables are low (none exceeds 0.40), and the variance inflation factors are acceptable (the highest is 5.03 for low income).

Results

Table 1 reports sample characteristics, comparing the prevalence of each across the four marital status groups.

Table 2: Probit Models of Receiving Domestic Assistance on Marital/Parental Status Accounting for Selection into Marriage and Parenthood: Older Canadians (Age 60+), 2007

Variable	Married or Cohabiting	Separated or Divorced	Widowed	Never married
Childless (1 = yes)	1.281***	1.416***	−1.890***	−1.790***
Cohabiting (1 = yes)	−0.061	–	–	–
Female (1 = yes)	−0.054	0.048	−0.037	−0.146
Age				
60-64[a]				
65-74	−0.067	0.151	−0.079	0.292*
75 or older	−0.277***	0.029	−0.143	0.138
Number of siblings	0.013	0.043*	0.017	0.025
Live alone (1 = yes)	–	−0.058	0.026	0.266
Visible minority (1 = yes)	−0.388***	−0.290	−0.481**	−0.081
Most relatives live in the same city (1 = yes)	0.130***	0.142*	0.115*	0.134
Most friends live in the same city (1 = yes)	0.123**	0.175*	0.051	0.055
Education				
Less than HS	0.124*	−0.019	0.240**	−0.036
HS	0.079	0.070	0.254**	−0.067
Some post-secondary	−0.024	0.043	0.094	0.181
College/trade school	0.117*	−0.093	0.170*	−0.034
Bachelor's or higher[a]				
Employment				
Employed	−0.058	−0.092	−0.056	−0.050
Others	−0.013	−0.214*	−0.102	−0.149
Retired[a]				
Household income				
<$30,000	0.084	0.097	0.141	−0.110
$30,000-59999	0.158*	0.170	0.068	0.156
$60,000-99,999	0.198**	0.172	0.297	0.322
$100,000 or more[a]				
Home ownership (1 = yes)	−0.020	0.074	0.000	0.274**
Length of residence	−0.033*	−0.049*	−0.004	−0.087**
Self-reported health	0.111***	0.104**	0.077**	0.026
Activity limitation (1 = yes)	−0.124**	−0.176**	−0.148**	−0.209
Chronic illness (1 = yes)	−0.058	−0.005	−0.185**	0.066
Intercept	0.188	−0.054	0.330	1.987***
Log likelihood	−4810	−1265	−2358	−490
rho	−0.777*	−0.907	0.781**	1.000*
N	5,732	1,461	2,949	590

***p < 0.001; **p < 0.01; *p < 0.05 (two-tailed test)

[a] Reference group.

Note: All models include a dummy variable for missing household income. See Appendix A for the covariates in the selection equation.

Source: The 2007 Canadian General Social Survey.

Compared to those in other groups, individuals who were married were the least likely to be female, had the highest income levels, were the most likely to own their homes, reported the longest length of residence, had the best self-reported health, and were the least likely to report experiencing activity limitations. In contrast, those who were separated/divorced were the youngest, had the most siblings, were the most likely to live alone, were the most likely to be employed, had the lowest household incomes, were the least likely to own their homes, and had the shortest length of residence. Widowed respondents were the most likely to be female and older, had the fewest siblings, were the least likely to be visible minorities, had the lowest levels of education, were the most likely to be missing information on income, reported the poorest self-reported health, and had the greatest proportion with activity limitations and chronic illness. Finally, never-married respondents were the least likely of the unmarried groups to be living alone, were the most likely to be members of a visible minority, and had the highest levels of education.

With regard to the dependent variables, more than two-thirds of those in the study sample reported that they had received domestic support or had such support available to them from individuals living outside their household if needed in the past 12 months. An even greater proportion (over 80%) reported that they had received transportation assistance or had such support available if needed during this same period. Somewhat fewer respondents (from 35% to 50%) reported having received emotional support in the past 12 months: this differential reflects the fact that respondents were only asked about whether they had received such support but not whether they felt such support would have been available if needed.

Bivariate comparisons of the proportion reporting having received each of the three types of support by marital status revealed significant differences across the groups. Specifically, married/cohabiting individuals were the most likely to report receiving domestic assistance (70.7%), whereas those who were separated/divorced (66.4%) were the least likely to report such support from non-household members. In contrast, few differences were evident across the groups with regard to transportation assistance. For emotional support, married individuals were the least likely (34.9%) to report emotional support from others living outside the household, whereas widowed individuals were the most likely (49.7%).

When marital and parental status were addressed simultaneously (see Figure 1), the findings changed somewhat. In this case, whereas married/cohabiting individuals with children were the most likely to report receiving domestic assistance from non-household members (71%), those who were both separated/divorced or widowed and childless (59%, 59%) emerged as the least likely to report such support. A somewhat different pattern was evident with respect to transportation assistance: in this domain, those who were married and who had children were once again among the most likely to report receiving assistance (85%) along with those who were not currently married, whether separated/divorced or widowed, but who had children (85%). In contrast, those who had never married but who had children (72%) were the least likely to report such support. For emotional support, yet another pattern emerged: those who had never married but who had children were the most likely to report receiving such support (54%), whereas those who were married/cohabiting and childless (33%) were the least likely to report such support, followed closely by those who were married/cohabiting and who had children (35%) and then by never-married or widowed and childless individuals (42%, 42%).

Table 2 presents regression estimates obtained for models in which extra-household domestic support was regressed on marital/parental status with selection into marriage/parenthood taken into account (see Appendix A for the regression estimates in the selection models), and with demographic, socioeconomic, and health factors controlled for. Prior to the introduction of these control variables, the results (not shown) revealed that among those who were either currently married/cohabiting or separated/divorced, being childless was associated with a greater likelihood of domestic support from individuals outside the household. In comparison, among those who were widowed, childlessness was associated with a reduced likelihood of domestic support from individuals outside the household, whereas among those who had never married, childlessness had no significant impact. In the multivariate analyses, the impact of childlessness on domestic support remained the same with the exception of never-married adults. For this group only, the impact of childlessness on support became significantly negative following the introduction of the control variables, suggesting that one or more control variables (e.g., home ownership) may have suppressed an otherwise negative association between childlessness and domestic support within this marital status group.

Turning to the control variables, we found that gender and living arrangements were not significantly associated with domestic support among any of the four marital status groups. Among married individuals specifically, those who were older (aged 75+), members of visible minority groups, and who reported longer length of residence were less likely to report having received domestic support from others outside the household, whereas those who reported having relatives and friends available were more likely to have received domestic support from others outside the household. With regard to socioeconomic factors, it was married individuals with low to moderate levels of education and moderate incomes who reported more domestic support. Finally, with regard to health, our findings showed that better self-reported health was associated with a greater likelihood of support from others outside the household, whereas the presence of activity limitations reduced the likelihood of support from others.

Some of the same factors (i.e., having friends, having relatives, length of residence, self-reported health, activity limitations) emerged as significantly related among separated or divorced individuals. However, in contrast with those who were currently married, divorced or separated individuals benefited from having more siblings available but were disadvantaged if they were looking for work, caring for children, or engaged in household work rather than being either employed
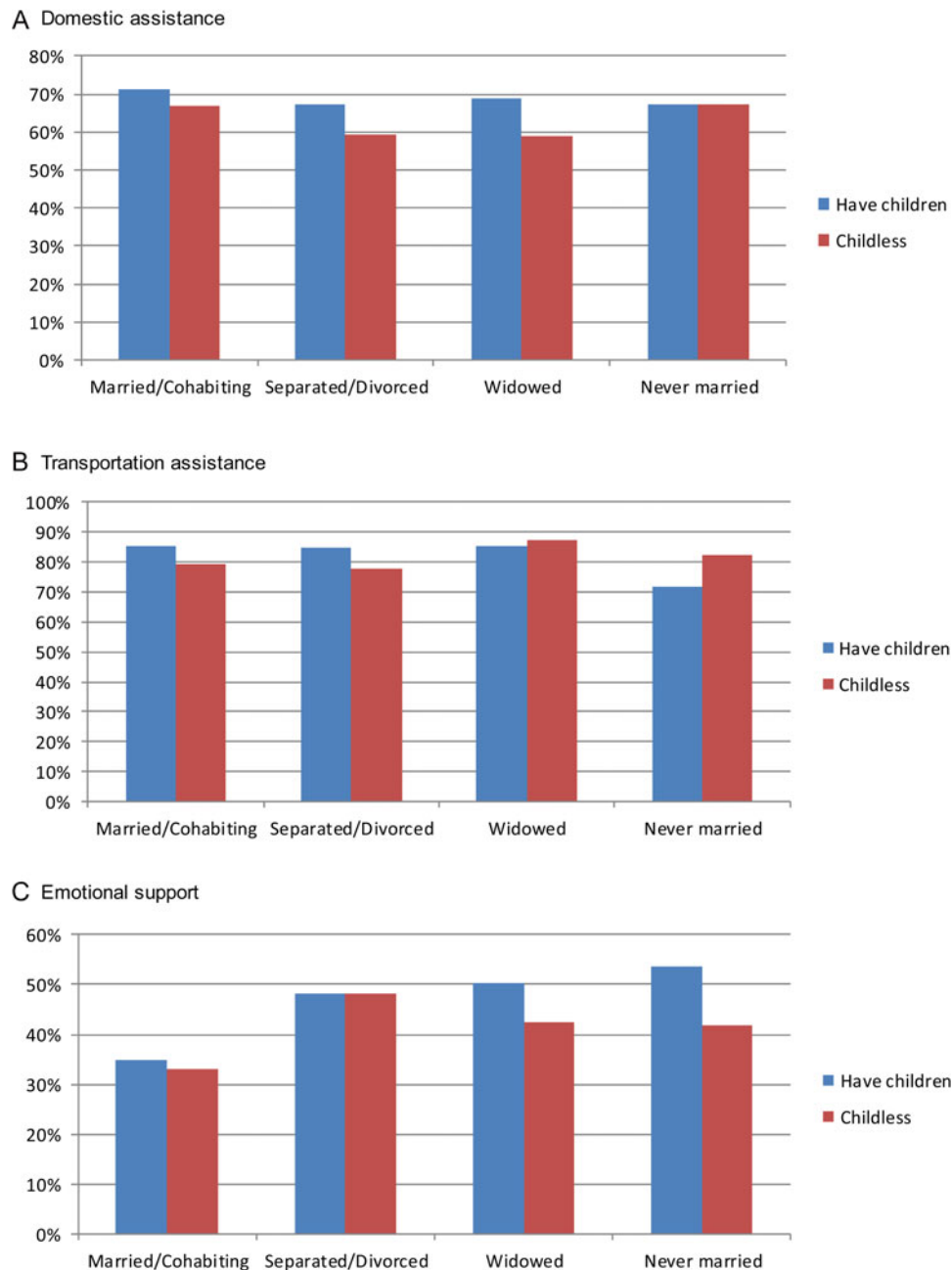
Figure 1: Social Support by Childlessness and Marital Status

in the labour market or retired. Those who were widowed were also similar to those who were married with regard to the negative implications of visible minority status and activity limitations as well as the positive implications of having relatives nearby, low to moderate levels of education, and excellent self-reported health. In addition, however, they also reported negative implications of chronic illness. Finally, fewer factors emerged as significantly related among those who had never married: those in the middle of the three age groups (65–74) were more likely to report receiving domestic support than those who were either

younger or older as were those who owned their own homes, while those reporting longer length of residence reported less domestic support.

Table 3 presents the results of similar analyses conducted with assistance with transportation as a dependent variable. At the bivariate level (results not shown), childlessness was significantly and positively associated with extra-household transportation assistance among married/cohabiting, separated/divorced, as well as never-married individuals but was negatively related among widowed older adults.

Table 3: Probit Models of Receiving Transportation Assistance on Marital/Parental Status Accounting for Selection into Marriage and Parenthood: Older Canadians (Age 60+), 2007

Variable	Married or Cohabiting	Separated or Divorced	Widowed	Never married
Childless (1 = yes)	1.366***	1.249***	−1.013	1.516
Cohabiting (1 = yes)	−0.005	–	–	–
Female (1 = yes)	0.078*	0.144*	0.061	0.169
Age				
60-64[a]				
65-74	−0.012	0.063	0.107	−0.239
75 or older	−0.085	0.102	0.158	−0.335
Number of siblings	0.021*	0.042	0.033	0.017
Live alone (1 = yes)	–	0.057	0.353***	0.350
Visible minority (1 = yes)	−0.453***	−0.128	−0.493**	0.005
Most relatives live in the same city (1 = yes)	0.073*	0.185**	0.132*	0.183
Most friends live in the same city (1 = yes)	0.143***	0.209**	0.225**	0.368*
Education				
Less than HS	0.067	−0.055	−0.046	−0.227
HS	0.064	0.071	0.086	−0.281
Some post-secondary	0.083	0.095	0.060	0.440
College/trade school	0.123**	−0.120	0.088	0.084
Bachelor's or higher[a]				
Employment				
Employed	−0.115**	0.071	0.175	−0.083
Others	−0.096*	−0.074	−0.094	−0.073
Retired[a]				
Household income				
<$30,000	−0.053	0.438*	−0.154	−0.155
$30,000-59999	−0.042	0.365*	−0.087	0.020
$60,000-99,999	0.038	0.476*	0.004	0.211
$100,000 or more[a]				
Home ownership (1 = yes)	−0.105*	−0.008	0.005	0.335*
Length of residence	−0.006	0.014	0.000	0.019
Self-reported health	0.084***	0.108**	0.076*	−0.006
Activity limitation (1 = yes)	−0.068*	−0.098	−0.152*	−0.242
Chronic illness (1 = yes)	0.044	0.074	−0.105	0.049
Intercept	0.535***	−0.475	0.545	−1.071
Log likelihood	−3795	−992	−1669	−395
rho	−1.000*	−0.920	0.404	−0.781
N	5,772	1,470	2,959	597

***p < 0.001 ; **p < 0.01 ; *p < 0.05 (two-tailed test)
[a] Reference group.
Note: All models include a dummy variable for missing household income. See Appendix A for the covariates in the selection equation.
Source: The 2007 Canadian General Social Survey.

However, once control variables were introduced, the results shifted, with the impact of childlessness becoming non-significant among both widowed and never-married adults. Thus, differences in the likelihood of living alone, having relatives or friends available, or in other factors likely accounted for the previously negative associations.

With regard to the control variables themselves, in many cases, the results were similar to those obtained for domestic support. However, several notable differences also emerged. Among those who were married, being female was positively associated with the

extra-household assistance with transportation. In contrast, being employed or engaged in other employment-related activities (i.e., looking for work, caring for children, or engaged in household work) was associated with reduced support relative to being retired. Home ownership was also associated with reduced likelihood of support. Among those who were separated or divorced, gender also emerged as a significant (and positive) correlate as did low to moderate rather than high income levels. Among those who were widowed, living alone increased the likelihood of support in this domain as did having friends in relatively close

proximity. The importance of access to friends was also evident among those who had never married.

The results of the regression of emotional support on marital and parental status are reported in Table 4. Before the introduction of control variables, being childless was associated with reduced support among all four marital status groups (results not shown). However, in multivariate analyses, being childless increased the likelihood of support from extra-household members among those who were married and separated or divorced but had no impact on those who were widowed or never married. Thus, it appears that the control variables served to suppress the otherwise positive impact of childlessness on extra-household support among the former two groups, whereas they explained the negative impact of childlessness on emotional support among the latter two groups.

The impact of the control variables on emotional support differed somewhat from that evident with regard to both instrumental support domains. Whereas gender was not significantly associated with domestic support and only significant among those who were married and separated or divorced when it came to transportation assistance, when it came to emotional

Table 4: Probit Models of Receiving Emotional Support on Marital/Parental Status Accounting for Selection into Marriage and Parenthood: Older Canadians (Age 60+), 2007

Variable	Married or Cohabiting	Separated or Divorced	Widowed	Never married
Childless (1 = yes)	1.337***	1.322**	−1.034	−0.777
Cohabiting (1 = yes)	0.085	–	–	–
Female (1 = yes)	0.617***	0.652***	0.335***	0.486***
Age				
60-64[a]				
65-74	−0.150***	−0.176*	0.016	−0.156
75 or older	−0.107*	−0.212*	−0.144	−0.187
Number of siblings	−0.019	−0.030	−0.020	0.029
Live alone (1 = yes)	–	0.098	0.067	0.073
Visible minority (1 = yes)	−0.216*	0.058	−0.228	−0.441
Most relatives live in the same city (1 = yes)	0.021	0.042	−0.024	0.201
Most friends live in the same city (1 = yes)	0.170***	0.153*	0.131*	0.145
Education				
Less than HS	−0.256***	−0.218	−0.310***	−0.769***
HS	−0.210***	0.032	−0.158	−0.591**
Some post-secondary	0.069	0.195	−0.087	−0.290
College/trade school	−0.100	−0.068	−0.087	−0.258
Bachelor's or higher[a]				
Employment				
Employed	0.112*	0.121	0.105	0.204
Others	−0.039	0.038	−0.136*	−0.007
Retired[a]				
Household income				
<$30,000	0.008	0.036	−0.230	0.043
$30,000-59999	0.028	−0.097	−0.113	−0.050
$60,000-99,999	0.077	0.196	−0.229	0.092
$100,000 or more[a]				
Home ownership (1 = yes)	−0.008	0.023	0.145**	0.083
Length of residence	−0.054***	−0.048*	−0.066**	−0.020
Self-reported health	−0.056**	0.037	−0.041	−0.083
Activity limitation (1 = yes)	0.214***	0.374***	0.153**	0.056
Chronic illness (1 = yes)	0.153***	0.229**	0.105	0.020
Intercept	−0.346*	−0.805**	0.475	0.732
Log likelihood	−5202	−1364	−2650	−537
rho	−0.813*	−0.656	0.433	0.258
N	5,834	1,494	2,985	604

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$ (two-tailed test)
[a] **Reference group.**
Note: **All models include a dummy variable for missing household income. See Appendix A for the covariates in the selection equation.**
Source: **The 2007 Canadian General Social Survey.**

support, being female was associated with greater perceived support in all four marital status groups. Among those who were married, older individuals reported being less likely to receive emotional support than those in the reference group (aged 60–64). Similarly, visible minority group members, those with lower levels of education, who were not employed for pay, who did not have friends nearby, who had lived in their residence for a longer period of time, and who had better perceived health but who also had chronic illness and activity limitations, were less likely to report receiving emotional support from others outside the household.

Among those who were separated/divorced, some of the same factors emerged as significantly related: those who were older, who did not have friends nearby, who had lived in their residence for a longer period of time, and who had chronic illness and activity limitations were more likely to report receiving emotional support from others. Among widowed and never-married individuals, age was no longer significant. Instead, lower education was associated with a reduced likelihood of support. Among widowed individuals only, having friends nearby, home ownership, and activity limitations were associated with an increased likelihood of support, whereas being engaged in other employment-related activities (i.e., looking for work, caring for children, or engaged in household work) and longer length of residence were associated with reduced emotional support compared to those who were retired.

Discussion and Conclusions

In this study, we set out to examine the implications of marital and parental status intersections for social support from non-household members in later life, focusing specifically on the comparative advantages and disadvantages of having or not having children among currently married, previously married (widowed, separated/divorced) and never-married individuals. As one of the few studies available to address this issue, it has a number of important theoretical and empirical implications.

First, in contrast with literature suggesting that married individuals and, in particular, married individuals with children, will tend to fare better than those in other marital/parental status groups when it comes to accessing social support, our findings suggest that this is not uniformly the case, at least not when it comes to support from non-household members. Whereas initial bivariate analyses revealed that married individuals and, in particular, married individuals with children were more likely than others to report receiving domestic assistance from those outside the household, this was not the case with regard to transportation

assistance or emotional support. Nor was the advantaged position of married individuals with children preserved once selection biases and other factors associated with social support were taken into account. Instead, our results revealed that among those who were married, childless individuals were more likely than those with children to be receiving or reporting access to instrumental sources of support (domestic and transportation assistance) as well as to be receiving emotional support from people living outside the household.

Insofar as childlessness appeared to represent an advantage rather than disadvantage when it came to non-household support for those who were married, our findings would seem to contradict prior studies suggesting that it is married childless individuals who tend to be the most vulnerable insofar as they tend to rely more or less exclusively on one another, whereas those who are unmarried and childless draw from a wider network of social resources.

Our findings would also appear to provide only limited support for prior theoretical and empirical work suggesting that that never married and/or previously married childless older adults are likely to be comparatively disadvantaged when it comes to accessing social support – in other word, that childlessness serves as a particular source of vulnerability in the absence of a spouse. Instead, as noted, given similar social, economic, and health characteristics, childlessness was associated with a reduced likelihood of extra-household support only among never-married and widowed individuals and only then with respect to domestic support. Conversely, there was no evidence to suggest that those who were childless fared worse than those with children in terms of domestic support among those who were separated/divorced; nor was there evidence indicating that, within any of the three unmarried groups, those who were childless fared worse than those with children when it came to help from those outside the household with transportation or emotional support. Instead, those who were unmarried and childless fared either as well (i.e., among widowed and childless, never married and childless) or better (i.e., among separated/divorced and childless) than those with children available.

Although our findings do little to support assumptions regarding the generally negative implications of being never married and childless for extra-household support, neither do they appear to provide clear support for the opposing view that never-married older adults are comparatively advantaged in later life: that is, that unlike other older adults, never-married childless individuals tend to be socially active, resourceful, and, therefore, to reap greater benefit from close ties with

selected kin (e.g., siblings and their families, cousins, nieces, nephews) as well as to non-kin (e.g., friends). Instead, among never-married individuals, those without children were found to be less likely to report receiving support from others living outside the household with domestic household tasks but equally likely to be receiving the other two forms of support studied. Therefore, although it may well be that never-married and childless individuals benefit from sibling and other social ties, this does not appear to confer an overall support advantage in later life.

Our findings, such as those indicating that married individuals with children do not necessarily fare better than those in other marital/parental status groups when it comes to accessing social support from others living outside the household, appear to provide little support for normative assumptions embedded within the hierarchical compensatory model and other theoretical perspectives that assume the primacy of the nuclear family for the provision of support. However, does the lack of support found for assumptions regarding the negative implications of being unmarried and/or childless suggest support for the alternative view? In other words, does it suggest that regardless of marital/parental status, older individuals will actively construct their social support networks to ensure their access to the social support they need and value? To the extent that this view suggests little or no difference in the support received across marital/parental status groups, the answer would seem to be no. In fact, systematic differences were evident across the groups with regard to both instrumental (domestic, transportation) and emotional forms of support. Perhaps, as noted by Rook (2009), whereas the view of older adults "as proactively managing their social lives is a valuable antidote to earlier views of older adults as passive victims of societal rejection …, it would be an oversight to ignore the changing life circumstances that can cause the loss or disruption of older adults' social relationships or that can reveal limitations of their intact social support resources" (p. 104).

In the present study, it would seem that those who were most disadvantaged when it came to accessing support from outside the household were those who were either currently married or separated/divorced but who had children available and those who were never married or widowed but also childless. This suggests that, in some circumstances, having children may serve as a barrier to accessing social support from non-household members (e.g., when one is married and in need of assistance with domestic activities, transportation, emotional support), whereas in other circumstances, not having children may serve as a barrier to support (e.g., when one is widowed and in need of assistance with domestic activities).

Although our findings would therefore provide little support for prevailing generalizations regarding the joint implications of marital and parental status, nevertheless, they do support claims regarding the importance of acknowledging the heterogeneity of the childless experience in old age (Dykstra & Wagner, 2007) and attending to marital status and parental status intersections when addressing issues of support (Dykstra, 2009). In doing so, they also suggest a need to consider the specific types of support involved. Not only did the impact of childlessness differ when comparing currently married to previously married and never-married individuals, but differences also were evident among those childless individuals who were never married, separated/divorced, or widowed. For example, in contrast with frequent suggestions to the effect that childlessness in general has negative implications for support, our findings revealed that this was only the case among widowed and never-married individuals and only with regard to extra-household domestic support. As a result, arguments regarding the greater vulnerability of never-married and childless individuals in general were only partially supported.

Overall, these findings would seem to point to considerable variability and complexity when it comes to issues of support from non-household members among older adults. The likelihood of receiving social support appears to vary depending on older adults' marital histories, the presence of children, and the type of support involved. That is, findings suggest that it is not simply the presence or absence of a spouse or children that matters but, rather, their presence or absence considered in the context of the marital/family history within which these relationships are embedded.

A major strength of our analyses was the ability to rule out selection effects. In previous studies using cross-sectional data, differences between parents and childless individuals may not be attributable to parenthood per se but rather to the characteristics of those likely to have children. However, our study also has a number of limitations. For example, unmarried and childless individuals are over-represented in institutional facilities, yet our data included only those living in the community. Limitations on sample size were also evident within specific marital and parental status groups (e.g., never married with children). As a consequence, the role of gender and other factors (e.g., health, socioeconomic status) in influencing the impact of marital and parental status on extra-household social support were not considered. Yet it has been suggested that "gender interacts with marital status to influence the composition of caregiving networks" (Barrett & Lynch, 1999, p. 695). Furthermore, in some situations, small cell counts may also have contributed to non-significant results. Overcoming such limitations will

be essential for future research on these and related questions.

Given the dataset employed for the study, it was also necessary to limit our analysis to two dimensions of social support – instrumental and emotional – as well as to specific indicators of each. Also, as we have noted, our measures of instrumental support combined support received during the past year with that projected to have been available if needed. Potential discrepancies between perceived and received support may therefore be important to consider when researchers compare our results with those reported by others. In general, studies tend to focus on one or the other, with studies of received support (and especially received instrumental support), generally limited to subsamples of older adults with functional impairments or disabilities. However, this latter approach unnecessarily confines investigations of instrumental support to those with disabilities/needs for care and by implication, manages to equate support with care. Yet social support is a broader concept and not confined to those who have disabilities of one sort or another. Further research is needed to address such issues.

Finally, it should be noted that our data do not speak to the overall levels or volume of support received by older adults but, rather, only to support from others living outside the individual's household. Yet whereas almost all of those who are currently married lived with at least one other person, the vast majority of those who were never married or previously married and childless lived alone. This restriction to extra-household support represents a limitation of the study and, despite our inclusion of living arrangements (alone versus with others) as a control variable, points to the need for research to be conducted that includes both intra- and extra-household support. Such research would help to clarify the importance of children, and particularly of the spouse, for the provision of both instrumental and emotional support. As it stands, because our measures of support do not include intra-household support, support may have been underestimated for those who were married or who lived with children and/or others (i.e., because they would receive more intra-household support but perhaps less extra-household support). By the same token, receipt of support by those who were never married and childless could have been overestimated because they are more likely to live alone (86% were living alone in our study) and have limited intra-household support available to them. In other words, the potential disadvantage of being never married and childless could be understated in this study.

These and other limitations call for further research to be conducted. This includes a need to confirm our findings in different contexts and using different measures of instrumental and emotional support. There is also a need for research to include a focus on who is providing various types of support both inside and outside of the household. However, despite these limitations, this study provides an important update to our understanding of the implications of marital and parental status intersections for the receipt of social support in later life. The findings indicate that, contrary to common assumptions, such structures are not uniformly positive, neutral, or negative in terms of their implications for the receipt of social support. Instead, both advantages and disadvantages appear to be associated with various marital and parental status combinations in later life. Overall, such findings suggest the need for future theoretical and empirical work to address the complexities of these relationships in order to enhance our understanding of these increasingly prevalent family structures.

Note

1 Recent literature frequently acknowledges a distinction between being childless and childfree. This distinction builds on the distinction between involuntary (childless) and voluntary (childfree) childlessness. Although we acknowledge the potential importance of this distinction, here we rely on the term "childless" to refer to those without children, whether this be involuntary or voluntary.

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Appendix A Probit (Selection) Equations of Childlessness: Older Canadians (age 60+), 2007

Variable	Married or Cohabiting	Separated or Divorced	Widowed	Never married
A. Domestic Assistance				
Female	−0.417***	−0.252	−0.379*	−0.530
Age	−0.008*	−0.002	0.007	0.046***
Minority	0.016	−0.424	0.125	−0.290
Education in 10 levels	−0.012	0.037	0.023	0.071
Catholic	0.160*	0.149	−0.266*	0.566**
Protestant	0.202*	0.134	−0.222	0.215
Other religion	0.075	0.440*	0.158	0.088
Quebec (1 = yes)	−0.007	−0.302**	0.316**	−0.061
Female x education	0.054***	0.008	0.029	−0.004
Intercept	−0.874**	−1.333**	−1.876***	−2.070**
B. Transportation Assistance				
Female	−0.360***	−0.207	−0.412**	−0.961**
Age	−0.006	−0.004	0.004	0.060***
Minority	0.002	−0.351	0.162	−0.277
Education in 10 levels	−0.009	0.047*	0.011	−0.003
Catholic	0.066	0.155	−0.326*	0.802**
Protestant	0.134**	0.034	−0.273*	0.269
Other religion	−0.061	0.293	0.042	0.118
Quebec (1 = yes)	−0.019	−0.342**	0.296**	−0.221
Female x education	0.040***	−0.002	0.042	0.094
Intercept	−0.911***	−1.217*	−1.503***	−2.762**
C. Emotional Support				
Female	−0.499***	−0.314	−0.380*	−0.962**
Age	−0.009*	−0.005	0.004	0.051***
Minority	0.005	−0.433	0.143	−0.242
Education in 10 levels	−0.017	0.030	0.012	0.021
Catholic	0.082	−0.058	−0.314*	0.692**
Protestant	0.123	−0.063	−0.274*	0.380
Other religion	0.074	0.280	−0.016	0.140
Quebec (1 = yes)	0.019	−0.266*	0.329**	0.003
Female x education	0.067***	0.027	0.035	0.086
Intercept	−0.707**	−0.962	−1.558***	−2.362**

***$p < 0.001$; **$p < 0.01$; *$p < 0.05$ (two-tailed test)

Note: Each equation is associated, respectively, with models in Tables 2-4. Reference categories include: male, whites, no religious orientation, and elsewhere in Canada.

Source: The 2007 Canadian General Social Survey.

Appendix B. Zero-Order Correlations of the Explanatory Variables Used in the Regression Analysis

	Childless	Female	60-64	65-74	Siblings	Living alone	Minority	Relatives	Friends	<HS
Childless	1.000									
Female	−0.044	1.000								
60-64	−0.024	−0.036	1.000							
65-74	−0.014	0.081	−0.555	1.000						
Siblings	−0.024	−0.007	0.097	−0.208	1.000					
Living alone	0.132	0.235	−0.076	0.228	−0.064	1.000				
Minority	0.004	−0.031	0.026	−0.056	0.063	−0.061	1.000			
Most relatives in town	−0.040	0.028	−0.006	−0.017	0.067	−0.010	−0.006	1.000		
Most friends in town	−0.017	0.012	−0.004	−0.010	0.017	0.019	−0.015	0.174	1.000	
Less than HS	−0.056	0.027	0.017	0.127	0.120	0.054	−0.055	0.111	0.034	1.000
HS	−0.004	0.059	−0.003	−0.003	−0.040	0.000	−0.001	0.007	0.017	−0.322
Some post-secondary	0.007	−0.022	−0.018	−0.018	−0.034	0.006	−0.010	−0.035	−0.017	−0.238
College/trade school	−0.004	0.023	0.005	−0.066	0.000	−0.021	0.015	−0.032	−0.003	−0.388
Employed	0.003	−0.152	−0.087	−0.274	0.037	−0.098	0.035	−0.020	0.010	−0.126
Others	−0.057	0.217	−0.031	0.012	0.055	0.021	−0.008	0.054	−0.002	0.153
Inc <$30,000	−0.001	0.105	0.026	0.066	0.051	0.323	−0.018	0.036	0.010	0.202
Inc $30,000-59999	0.010	−0.065	0.034	−0.068	0.026	−0.117	−0.037	0.001	0.034	−0.090
Inc $60,000-99,999	0.027	−0.125	−0.002	−0.110	−0.021	−0.153	0.019	−0.045	−0.008	−0.165
Income missing	−0.015	0.116	−0.035	0.126	−0.034	−0.019	0.032	0.007	−0.024	0.076
Own home	−0.076	−0.104	0.055	−0.127	−0.010	−0.346	−0.015	−0.003	0.033	−0.105
Years of residence	0.012	−0.037	0.016	0.018	−0.025	−0.103	−0.024	0.039	0.124	0.016
SRH	0.010	−0.011	0.032	−0.146	0.002	−0.058	−0.029	0.022	0.043	−0.182
HAL	−0.015	0.011	−0.058	0.163	−0.063	0.040	−0.025	−0.036	−0.033	0.081
Chronic illness	−0.033	0.067	−0.010	0.071	−0.062	0.047	−0.043	−0.048	−0.029	−0.009

	HS	Post-sec	College	Employed	Others	<30k	30-60k	60-100k	Inc_miss	Own home
HS	1.000									
Some post-secondary	−0.134	1.000								
College/trade school	−0.218	−0.161	1.000							
Employed	0.009	0.013	0.048	1.000						
Others	−0.026	−0.028	−0.046	−0.194	1.000					
Inc <$30,000	−0.018	−0.008	−0.039	−0.150	0.096	1.000				
Inc $30,000-59999	0.037	0.024	0.059	0.033	−0.064	−0.383	1.000			
Inc $60,000-99,999	−0.003	0.025	0.028	0.121	−0.082	−0.224	−0.216	1.000		
Income missing	0.006	−0.038	−0.030	−0.078	0.060	−0.385	−0.371	−0.216	1.000	
Own home	0.010	−0.003	0.041	0.055	−0.048	−0.251	0.097	0.126	0.005	1.000
Years of residence	−0.002	−0.006	−0.012	0.003	0.003	−0.062	0.032	0.028	0.004	0.339
SRH	0.029	0.020	0.024	0.185	−0.134	−0.159	0.050	0.109	−0.030	0.130
HAL	−0.022	0.008	−0.013	−0.145	0.060	0.091	−0.025	−0.063	0.010	−0.092
Chronic illness	−0.020	0.011	0.020	−0.126	0.053	0.057	−0.002	−0.001	−0.043	−0.048

	Residence	SRH	HAL	Chronic
Residence	1.000			
SRH	0.012	1.000		
HAL	−0.008	−0.427	1.000	
Chronic illness	−0.021	−0.365	0.334	1.000

Source: **The 2007 Canadian General Social Survey.**

Appendix C. Variance Inflation Factors (VIFs) of the Explanatory Variables Used in the Regression Analysis

Variables	VIF	SQRT VIF	Tolerance
Childless	1.05	1.02	0.955
Female	1.17	1.08	0.855
60-64	1.64	1.28	0.609
65-74	1.96	1.40	0.511
Siblings	1.09	1.05	0.915
Living alone	1.38	1.17	0.727
Minority	1.03	1.01	0.975
Most relatives in town	1.06	1.03	0.946
Most friends in town	1.05	1.03	0.949
Less than HS	2.34	1.53	0.427
HS	1.66	1.29	0.604
Some post-secondary	1.40	1.18	0.717
College/trade school	1.79	1.34	0.560
Employed	1.32	1.15	0.756
Others	1.14	1.07	0.881
Inc <$30,000	5.03	2.24	0.199
Inc $30,000-59999	4.26	2.06	0.235
Inc $60,000-99,999	2.53	1.59	0.396
Income missing	4.48	2.12	0.223
Own home	1.34	1.16	0.746
Years of residence	1.16	1.08	0.861
SRH	1.43	1.20	0.699
HAL	1.30	1.14	0.766
Chronic illness	1.24	1.12	0.803

Source: **The 2007 Canadian General Social Survey.**