Never Married and Childless/Childfree Older Canadians: Implications for Social Support

Margaret J. Penning[1][*]

Zheng Wu [2]

[1]Department of Sociology, University of Victoria, PO Box 1700 STN CSC, Victoria, BC, V8W 2Y2, Canada; phone 1-250-721-6573, fax 1-250-721-6217, email: mpenning@uvic.ca

[2]Department of Sociology, University of Victoria, PO Box 1700 STN CSC, Victoria, BC, V8W 2Y2, Canada; phone 1-250-721-7576, fax 1-250-721-6217, email: zhengwu@uvic.ca

*Corresponding Author

Abstract

Despite projected increases in the proportion of never-married and childless/childfree older adults in coming years, little is known regarding its implications for access to social support in later life. Using data from the 2007 General Social Survey (GSS-21) conducted by Statistics Canada, this study examined the joint implications of marital and parental status on the receipt of social support among adults aged 60 and over ($N = 11{,}503$). Two-stage probit regression models indicated that being never married and childless/childfree was associated with a greater likelihood of receiving instrumental but not emotional support from people outside the household. These findings suggest that being never married and childless/childfree is not uniformly positive, neutral, or negative in terms of its implications for social support. Future theoretical and empirical work will need to address the complexities of these relationships in order to enhance our understanding of these increasingly prevalent family structures.

Key words: aging, Canada, childfree, childless, never married, social support

Social Support among Never Married and Childless/Childfree Older Canadians

Introduction

North American as well as other developed countries are currently witnessing the aging of the population together with significant changes in family structure and relationships. Through recent declines in marriage and child-rearing as well as increases in divorce, cohabitation, and lone-parenthood, we are witnessing an increasing diversification of family structures (Chappell & Funk, 2011; Glaser, Stuchbury, Tomassini & Askham, 2008; Milan, Vezina & Wells, 2007). In Canada, at present, an estimated 5.8 per cent of adults aged 60 and over have never married and are not living common-law (Statistics Canada, 2013). Most are also childless/childfree.[1] Overall, approximately 11.4 per cent of community-dwelling adults aged 60 and over in Canada are childless; 3.2 per cent have never married or lived common-law and are childless (see Table 1). The proportion of never-married and childless older adults is expected to increase in coming years, particularly over the longer term as baby boomers and their children age (Lin & Brown, 2012). For example, Carriere et al. (2008) project that the proportion of Canadian women aged 65 years and over without any surviving children will increase from 16 per cent in 2001 to a high of 30 per cent in 2051. Similarly, Gaymu et al. (2010) project that the population of Canadian women and men aged 75 and older without spouses or children should remain relatively stable until 2020, but increase considerably over subsequent decades.

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 (Carriere 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 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 et al., 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: 330; Thornton & Young-DeMarco, 2001). Consistent with this latter view, there is also evidence to suggest that unmarried and 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 implications of being never married and childless for the receipt of social support. Indeed, never married and childless older adults have been described as invisible within social science literature (Dykstra & Hagestad, 2007). This study addresses such gaps in our knowledge about this growing population, focusing on the informal support they receive in comparison to those in other marital/parental status groups.

Review of the Literature

The Empirical Literature

<u>Never married older adults and social support</u>

A review of the empirical literature supports the view that marriage is central to social support and 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 et al., 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). Moreover, the marital relationship also facilitates access to similar resources from children and others in the informal network (Waite, 2009).

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) older adults are likely to be disadvantaged relative to those who are married (Chappell & Funk, 2011; Rubinstein, 1996; Keith, 2003; Keith, Kim & Schafer, 2000). Whether this is actually the case, however, remains unclear. To date, research attention has tended to focus on differences in the structural aspects of social and/or helping network ties - including network size and composition - rather than on differences in the receipt of functional support itself. In addition, research findings often appear contradictory. With respect to network size, for example, whereas some researchers have reported larger helping networks among the married compared with the unmarried (Thornton, White-Means, & Choi, 1993), others have reported the reverse (Stoller & Pugliesi, 1991; Townsend & Poulshock, 1986). Specifically, it has been suggested that when faced with disabilities in old age, married couples tend to rely on one another only and are less likely to seek the help of friends or formal care providers than are unmarried elders (Barrett &

Lynch, 1999; Johnson & Catalano, 1981; Thornton, et al., 1993; Townsend & Poulshock, 1986). Thus, larger social networks may not translate into larger support networks.

Others report that the support networks of the never married differ primarily in composition rather than size, from those of individuals in other marital status groups. In particular, both sibling and non-kin (e.g., friendship) relationships have been said to assume greater salience in the social networks of the never married (Barrett and Lynch, 1999; Connidis & McMullin, 1994; McMullin & Marshall, 1996; Rubinstein, Alexander, Goodman, & Luborsky, 1991). Whether this translates into equivalent or greater functional support remains unclear (e.g., see Cooney and Dunne, 2001; Stull & Scarisbrick-Hauser, 1989). Finally, still others have suggested that rather than being comparatively advantaged or disadvantaged relative to currently and/or previously married older adults when it comes to access to social support, the never married are heterogeneous (Barrett and Lynch, 1999; Rubinstein, 1987). It has been reported, for example, that compared to the married, never married of both sexes are overrepresented in both the socially active and isolated groups (Seccombe & Ishii-Kuntz , 1994).

Childlessness 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), the primary importance of children for the provision of support in later life is widely reported (Basten, 2009; DeOllos & Kapinus, 2002; Wenger, Scott & Patterson, 2000; Zhang and 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), something that they need to compensate for (Dykstra, 2009:682).

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To a considerable degree, empirical literature appears to support to this view. Once again, however, much of the evidence involves structural rather than functional dimensions of support. For example, childless elderly persons have also been found to be more likely than elderly parents to live alone, to have fewer close family ties, and less social contact (Chapman, 1989; Koropeckyj-Cox, 1998; McMullin & Marshall, 1996). Conversely, childless elderly individuals appear to have similar or higher levels of involvement with siblings, friends and other age peers as well as to be active in the community (Campbell, Connidis, & Davies, 1999; Connidis & Davies, 1990; Connidis & McMullin, 1992; Cornwell, Laumann & Schumm, 2008; Dykstra & Hagestad, 2007; Wenger et al., 2007). Nevertheless, their overall support networks are reported to be smaller (Dykstra, 2006, 2009; Dykstra & Wagner, 2007; Wenger et al., 2000). Moreover, as noted above, these networks tend to be considered more vulnerable and less likely to provide the long-term commitment and level of instrumental support that is provided by children (Beckman & Houser, 1982; Choi, 1994; Dykstra, 1993; Gironda, Lubben, & Atchison, 1999; Wenger et al., 2007; White, 2001; Zhang and Hayward, 2001).

Fewer studies have compared parents and childless older adults with regard to functional support (Silverstein & Giarrusso, 2010). Some evidence suggests that the disadvantage of having relatively small support networks may be compensated for by having better access to other resources (e.g., income and "social alternatives to children" - Silverstein & Giarrusso, 2010:1043) among childless elders (Dykstra & Wagner, 2007). If so, perhaps this is effective when direct care needs are low but less so, when needs increase. For example, childless elderly persons have been found to be less likely to perceive that they will have any caregivers available in the event of major bouts of sickness (Choi, 1994). In Sweden, Larsson and Silverstein (2004:231) found that among older adults living alone, parents were considerably more likely to

receive informal support than both never married and previously married individuals without children, leading them to conclude that "even in an advanced welfare state like Sweden, children are assets for receipt of care in old age."

Once again however, whereas most researchers have tended to focus on the comparative advantages and disadvantages of having or not having children, others have suggested that "parenthood is not a monolithic experience" and that the meaning, experience, and consequences of childlessness will vary (Umberson, Pudrovska & Reczek, 2010: 614). It is therefore important to acknowledge the heterogeneity of the childless experience in old age (Dykstra and Wagner, 2007:1510-11).

Never-married and childless

In view of the importance attributed to both the spouse and children for the receipt of support in later life, it comes as no surprise that never married and childless old adults are often considered to be particularly disadvantaged when it comes to social support. As noted by Wu and Pollard (1998:S324) for example, "(t)he increasing number of elderly persons who are unmarried and childless raises important concerns about their future well-being, as they lack the two most important sources of informal support: spouses and children…" (also see Keith, 2003:55). According to Dykstra (2009:685), it is the intersection that is especially important: being childless is a source of vulnerability particularly in the absence of a partner.

To date, however, empirical support for this view remains limited. Some research evidence suggests that never married childless adults, particularly women, tend to be particularly active socially and are more likely to belong to social groups compared to older married women with children (Cwikel, Gramotnev & Lee, 2006; Dykstra, 2009:682; Johnson & Catalano, 1981; Wenger et al., 2000; Wenger et al., 2007). As a consequence, older people who are not married

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or who have few or no children appear more likely than the married to have non-kin in their support networks (Keating et al., 2003). Johnson and Catalano (1981:610) report finding that childless married individuals were more isolated and tended to rely primarily upon each other, whereas those who were unmarried were "more resourceful in using a long-term accumulation of social resources to meet their needs." In particular, they appear to benefit from close ties to siblings, including their siblings' families (Connidis & McMullin, 1994; Larsson and Silverstein, 2004; Wenger et al., 2007).

Findings reported by Campbell et al. (1999) revealed that siblings tend to assume a dominant role in the support networks of unmarried and childless elderly individuals. Similarly, Wenger et al. (2000) compared the support networks of older people (living in Liverpool, UK) who did not marry and remained childless to those of parents (nearly always married) and those who were married but remained childless. They found that childless people, especially those who had never married, were more likely to live close to a sibling, to have family dependent network types (i.e., typically small, with primary reliance on local family, little involvement with friends, neighbours, community groups), and to be less isolated from family in old age.

However, although suggestive, such studies have more to say about the potential for support than they do about support actually received. To date, however, few studies have directly assessed the impact of being both never married and childless on the receipt of support. Wu and Pollard's (1998) study of the availability, exchange, and receipt of informal support among unmarried childless elderly Canadians remains an exception. Importantly, their multivariate analyses revealed no impact of marital status (i.e., whether never married, separated/divorced, or widowed) on the overall availability, exchange, or receipt of instrumental or emotional support among childless elderly individuals. Thus, never married childless individuals did not differ from

those who were previously married, whether currently separated/divorced or widowed. However, Wu and Pollard's study was limited to currently unmarried and childless elderly persons, and thus their findings cannot be generalized to the elderly population as a whole.

Theoretical Issues

In accordance with much of the empirical literature, theoretical accounts of the importance of marital and parental ties for the receipt of social support have long highlighted the centrality of family/kinship ties for social connectedness and support, particularly in later life (Wenger, Dykstra, Melkas, & Knipscheer, 2007). This is often accompanied by arguments regarding the substitutability of social ties. For example, several decades ago, Cantor's (1975, 1979) hierarchical compensatory (HC) perspective 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, spouses and children represent the most preferred sources of support, regardless of the type of support involved, followed by other relatives, friends and neighbours and finally, by formal organizations. If and when more preferred sources of support are unavailable, ties lower in the hierarchy are said to substitute for the missing relationships. Thus, other kin generally substitute in the absence of spouses and children, and friends or neighbours substitute when spouses and kin are unavailable or incapable of providing the support required. According to Cantor (1979), however, friends and neighbours are apt to assume greater importance than other kin (e.g., siblings, in-laws) among childless elderly persons due to age and associated mobility and health limitations that are likely to restrict siblings' and in-laws' abilities to provide support.

Whereas the HC model argued for substitution without regard to the type of support involved, the task-specificity (TS) model emphasized differences in the ability of particular

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groups to offer various forms of support (see Dono et al., 1979; Litwak, 1985). From this perspective, groups provide support in areas where their structural characteristics (i.e., proximity, length of commitment, commonality of lifestyle, size) most closely correspond with the requirements of the type of assistance required (Messeri, Silverstein, & Litwak, 1993). Thus, family members typically function as sources of instrumental and emotional support whereas friends more often are able to provide emotional support and companionship. Although substitution is not easily achieved (Litwak, 1985), "the group that best substitutes for an absent optimal group is the one whose structure most closely matches the tasks of the other" (Messeri, Silverstein, & Litwak, 1993: 127). Thus, whereas kin are considered the best substitutes for a missing spouse when it comes to providing household support during acute illness, friends or neighbours are considered better suited to providing companionship, and neighbours are better substitutes in certain emergencies.

In contrast with assumptions of normatively-ordered substitution, 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 tied to specific social ties (Connidis, 1994). Consequently, "for some a spouse may be the most likely provider of support during illness while for others a sibling or friend might be" (Connidis, 1994: S310). The view that older adults are actively and continuously involved in the creation of their support networks also characterizes socioemotional selectivity theory (SST - Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999). However, it also asserts the increasing importance of present-oriented emotionally-meaningful needs and goals (including relationships with loved ones) and

decreasing importance of instrumental needs and goals for the selection of support network members (Lockenhoff & Carstenson, 2004). Thus, although people are said to adjust their social networks proactively in order to meet changing needs, the needs involved are largely emotional rather than instrumental in nature. The implication would seem to be either that needs for instrumental support will be deemed less important and/or that close socioemotional ties will activate to provide for all of the forms of support required.

Finally, along somewhat similar lines, Kahn and Antonucci's (1980) convoy model of social support conceptualizes individuals as being embedded within a convoy, or set of people 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 (see Antonucci, 1985; 1986; 1990; Antonucci & Akiyama, 1987; Antonucci, Akiyama, & Takahashi, 2004). Grounded in attachment and social role theories (Levitt et al., 2005:400), this model sees the convoy as having three concentric circles: those who are "closest and most important" to the individual located in the inner circle, and those who are "less close, but still important" located in the middle and outer circles. Convoys vary in terms of structural characteristics and other factors, including the support they provide. Family members and friends who are emotionally close to the individual generally occupy central positions in the convoy and usually remain there over time. However, it has been noted that "the convoy model makes no *a priori* assumptions regarding the specific relations comprising an individual's social network" (Chen , 2007). Instead, the structure and supportive functions of the convoy at any given time are thought to be the product of personal and situational characteristics, which affect the individual's need for support. "Life transitions involving major changes in roles are viewed as likely precipitators of convoy change" (Levitt et al., 2005:400; see also Antonucci, Jackson, & Biggs, 2007; Antonucci, Birditt, Sherman, &

Trinh, 2011), with those in the outer circles more likely to change as one grows older (Antonucci & Akiyama, 1987; Antonucci, et al., 2004). 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 primary focus of these theories is on the structure/composition of the social support networks rather than on the receipt of various types of social support per se. In addition, none explicitly addresses differences in access to social support among never married childless older adults compared to those in other marital status groups with and without children. Nevertheless, their implications appear to differ. For example, HC and TS models seem to suggest that never married and childless older adults will tend to be disadvantaged relative to those in most other marital/parental status groups when it comes to the receipt of social support. This is because they lack access to some of the most important and normatively preferred sources of support or because they lack access to the types of ties best-suited to providing some of the specific types of support often required in later life (Connidis, 2010). Conversely, models founded on the view that social roles are flexible in function and that older individuals actively negotiate/construct their support networks in order to meet changing needs suggest a more positive scenario – one implying that over the life course, never married childless older adults, like those in other marital/parental status groups, will actively construct their support convoys so as to ensure their ongoing ability to provide the support (level and types) seen to be required.

The Present Study

The above-noted review suggests a need to focus attention on the joint implications of marital and parental status for the receipt of social support in later life. As noted, prevailing theoretical accounts have tended to focus on structural rather than functional dimensions of

support – that is, on access to the social network ties (including social network size and composition) within which support tends to be provided - rather than on the availability of social support itself. The implication seems to be that access to support is synonymous with its receipt. Some see never married and childless older individuals as disadvantaged insofar as they lack access to critical sources of support; others suggest a more positive scenario wherein never married childless older adults actively construct their support networks so as to ensure the availability of support when needed. Empirical literature too tends to focus on structural factors and reveals considerable support for the importance of a spouse and children for the receipt of support and care in later life. However, whether those without spouses and children available benefit from more diverse supportive relationships is unclear (Keating et al., 2003). Research that focuses directly on the joint implications of being never married and childless on social support/support networks is extremely limited (Wu and Pollard, 1998). Finally, 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 on extra-household social support received by older adults living independently in the community. Two research questions were examined: (1) What impact does being never married and childless have on the receipt of various types of social support? (2) What factors influence the receipt of various types of support among never married and childless older adults? To address the former, we divided the study population into five groups based on their marital and parental status, including those who were: (a) never married (or cohabited) and had never had or raised a child; (b) not currently married (cohabiting) and never had or raised a child (i.e., divorced or widowed childless); (c) currently married/cohabiting but had never had or

raised a child; (d) not currently married/cohabiting but had or raised at least one child; and (e) currently married/cohabiting and had or raised at least one child (the reference group). We were particularly interested in comparing (a) with (e) to identify the joint effects of being never married and childless and comparing (e) with other marital and parental groups (b, c, and d). We also compared (b) and (c), and (d) and (e) to identify the effect of marriage, and compared (b) and (d), and (c) and (e) to identify the effect of parenthood. Throughout the analyses we 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.

Thus, we contribute to the literature in two important aspects. First, our study population includes all elderly persons, regardless of their marital or parental status. Encompassing the entire elderly population allows us to compare never married and childless persons with persons in all other marital and parental statuses. Second, our empirical model is based on the assumption that being never married and childless is not random and that individuals choose to remain unmarried and childless (e.g., Thornton, Axinn, and Xie, 2007; Veevers, 1980). As such, our empirical analyses take into account the selection into being never married (or cohabited) and childless in the multiple comparisons of individuals in different marital and parental statuses, and correct for potential bias it may have introduced in the regression estimates. 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.

Data and Methods

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Data source and sample

The study used data from the 2007 General Social Survey, Cycle 21 (GSS-21), conducted by Statistics Canada. The GSS program 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 over living in all ten provinces, excluding Canadians living in the northern territories and full-time residents of institutions. The survey was conducted through telephone interviews. Households without telephones were excluded, but represented 0.9 per cent of the target population (Statistics Canada, 2009). Moreover, 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 over, with an overall response rate was 57.7 per cent. To study social support among older

adults, we limited our study sample to individuals who were 60 years of age or older. As the

study focuses on marital and parental status, we removed the cases where we could not identify

the respondents' marital or parental status ($n = 50$). In unreported analysis, we found that those

who were missing 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 11,503 respondents

who were 60 years of age or older living in private households at the time of the survey.

Measures

The study focused on the receipt of social support. It used a functional definition of social

support that emphasized the supportive resources available through one's social network.

Specifically, we focused on two dimensions of support received: instrumental and emotional

support. We created three dummy variables to indicate whether respondents received support in

the areas of domestic help, transportation assistance, and emotional support.

To measure domestic support, we used the responses from the following questions in the

GSS-21: "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 help provided by those living with them as well as that provided by organizations.

Taking into account whether respondents needed assistance is also important (Taylor, 1990).

Removing those who did not need assistance from the measurement (analysis) can introduce a

sample selection bias when the level of perceived support differs significantly from that of

received support. As such, respondents who provided a negative response (i.e., 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 these questions, we created a dummy variable, indicating those who provided a positive response to either question.

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 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 of emotional support in the past year.

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 variable. Cases with missing values on response variables were removed from the regression analysis.

The primary independent variable was marital and parental status. We used the information collected on respondents' marital and parental histories to create a five-level categorical variable: a) never married or cohabited and never had or raised a child; b) not currently married or cohabiting and never had or raised a child; c) currently married or cohabiting but never had or raised a child; d) not currently married or cohabiting but had or raised at least one child; and e) currently married or cohabiting and had or raised at least one child. Due to small cell counts, it was not feasible to separate cohabiters from the married in the measure of marital and parental status. As well, cohabitation has become a common path of entry

into conjugal relationships (Kennedy & Bumpass 2008; Kerr, Moyser & Beaujot, 2006) and prior evidence suggests that cohabitation currently 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).

Our regression analyses also included a number of control variables that are known to influence social support. We considered three socio-demographic control variables. Respondents' gender was a dummy indicator (female = 1). Age was measured as a three-level categorical variable: 60-64, 65-74, and 75 and over. Visible minority status was also included as a dummy variable (visible minority = 1), 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 (alone = 1, not alone = 0); whether or not the respondent had most of their relatives living in the same city/region (yes = 1), and whether or not they had most of their friends living in the same city/region (yes = 1).

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 (yes = 1) 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 (yes = 1). The presence of chronic conditions was also a dummy variable (yes = 1), 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 marital and parental status, our main independent variable. It is well known that both marriage and parenthood are endogenous because not everyone chooses to marry or become a parent (e.g., Thornton, Axinn, and Xie, 2007; Veevers, 1980). Older persons who are never married and childless are even more selective (e.g., Rubinstein, et al. 1991; Wu and Pollard, 1998). If the decision to remain single *and* childless is correlated with social support, then the effect of marital and parental status on social support may be biased (see Greene, 2012). For instance, if individuals who choose to marry and/or 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 married and a parent may be overestimated. By

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the same token, if people who remain single *and* childless tend to be more introspective and solitary and develop a limited circle of relationships, then the potential negative effect of being single and childless can also be overstated.

To correct for the potential selection bias, using the maximum likelihood method, we estimated two simultaneous 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)

$$y_{1i}^* = x_{1i}\beta_1 + u_{1i}$$ (1)

$$y_{1i} = 1 \ \ if \ \ y_{1i}^* > 0$$

$$y_{1i} = 0 \ \ otherwise$$

where y_1^* is a latent dependent variable (receipt of support); x_1 is a vector of covariates; 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)

$$y_{2i}^* = x_{2i}\beta_2 + u_{2i}$$ (2)

$$y_{2i} = 1 \ \ if \ \ y_{2i}^* > 0$$

$$y_{2i} = 0 \ \ otherwise \ \ .$$

From (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 $\rho \neq 0$, regression estimate on the treatment (non-marriage and childlessness) is likely biased (Greene, 2012). When $\rho > 0$, the estimated effect of non-marriage

and childlessness from standard single-equation model is generally biased away from zero. The converse is true when $\rho < 0$.

In (1), x_1 included the independent variables shown in Table 1. In (2), x_2 comprised a somewhat different set of covariates, including gender, age (as a continuous variable), minority status, education (as a 10-level ordinal variable), religion (in 4 levels), and a set of nine regional (provincial) dummies. Although not necessarily required, choosing a somewhat different set of covariates for the selection equation helps identify the effect of the 'treatment' variable (marital and parental status) in the outcome equation (Amemiya, 1985). In our analyses, rho was significant in all but one model, confirming the selection effect of non-marriage and childlessness in modeling social support (see Tables 2 - 4). We present the regression estimates from the outcome models in Tables 2 - 4 and the regression estimates from the selection models in the Appendix. It is worth noting that the rate of non-marriage and childlessness increases with age and level of education. Non-marriage and childlessness is also more common among members of visible minorities, Catholics, and Protestants than other older Canadians (see Appendix A).

Results

Table 1 presents descriptive statistics on the study sample. Overall, almost 70 per cent of the target population reported that they had received support or had such support available to them if needed in the area of domestic assistance in the past 12 months. An even greater proportion (85%) reported that they had received transportation support (or had such support available if needed) during this same period. In contrast, however, just less than 40 per cent of those in the target population reported having received emotional support in the past 12 months. Figure 1

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provides bivariate comparisons of the proportion reporting having received each of the three types of support by marital/parental status. It revealed significant differences across the groups, with married/cohabiting individuals with children being the most likely to report receiving domestic assistance (71%) whereas those who were not currently (but previously) married/cohabiting and childless (62%) being the least likely to report such support. Never married/cohabiting and childless individuals were intermediate (66%).

<Insert Table 1 and Figure 1 about here>

A somewhat different pattern was evident with respect to transportation assistance: in this domain, differences across groups were less striking (albeit statistically significant, $p < .001$) and, those who were married and who had children were once again among the most likely to report receiving assistance (85%), together with those who were not currently married who had children (85%), whereas those who were married and childless (79%) were the least likely to report such support. For emotional support, yet another pattern emerged: those who were not currently (but previously) married/cohabiting but who had children (50%) were the most likely to report receiving emotional support 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 and childless individuals (41%).

Table 2 presents regression estimates for the two models in which the receipt of extra-household domestic support was regressed on marital/parental status with selection into marriage/parenthood taken into account (see Appendix A). Model 1, our baseline model, shows that those who were never married or not currently married and childless (i.e., groups a and b) as well as those who were married and childless (group c) and those who were not married but had

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children (group d) all were less likely to report having received domestic support from individuals outside the household than those who were married or cohabiting and who had children (group e). In addition, however, the difference between the not married with (group d) and without (group b) children was significant, with the latter being less likely to report receiving support. No significant difference was evident between the married (group c) and unmarried (group b) childless groups.

<p style="text-align:center">< Insert Table 2 about here ></p>

Model 2 results were somewhat different, suggesting that the impact of marital/parental status on domestic support was in part attributable to the impact of one or more demographic, socioeconomic and health control variables. Once these factors were controlled for, the negative impact of being never married and childless on the receipt of extra-household domestic support reversed: those who were never married and childless (a) were now more likely to receive such support than married individuals with children (e) as well as those in all other marital and parental statuses (the results are not shown). Also, in these analyses, the difference between the not married with children (d) and the married with children (e) was reduced to non-significance, suggesting that factors other than marital/parental status accounted for the initial difference in support received across these two groups. The difference between the unmarried/childless (b) and married/childless (c) remained non-significant. Both were less likely to receive domestic assistance than were those who were married and who had children. Finally, the difference between the previously married with (d) and without (b) children remained significant with the latter being less likely to report receiving support, confirming the negative influence of being childless on social support.

Turning to the control variables, we found that whereas gender and living arrangements were not significantly associated with the receipt of domestic support, older individuals (aged 75+), and visible minorities reported receiving lower levels of support than others. In contrast, those with more siblings, relatives, and friends available were more likely to have received domestic support from others outside the household. With regard to socioeconomic factors, individuals with lower or moderate levels of education and income as well as those who owned their own homes reported more domestic support. Older persons who were looking for work, caring for children, or engaged in household work rather than either employed in the labour market or retired had lower levels of support as did those reporting longer length of residence. Finally, with regard to health, our findings showed that better self-reported health was associated with more support from others whereas the presence of activity limitations as well as chronic conditions reduced the likelihood of support from others.

Table 3 presents the results of similar analyses conducted with the receipt of assistance with transportation as a dependent variable. Here, in contrast with the results obtained for domestic support, we initially found a significant positive impact of being never married and childless (a) relative to being married and having children (e) (see model 1). In addition, those who were married but childless (c) were less likely than those who were married with children (e) to receive transportation assistance. No significant difference was evident between the currently married (c) and unmarried (b) childless. However, those who were not married and childless (b) or not married with children (d) did not differ from those who were married and had children. Once again, however, the difference between the not married with and without children (b and d) was significant: among those who were not married, those without children were less likely to receive transportation assistance.

< Insert Table 3 about here >

With the introduction of demographic, socioeconomic, and health controls into the equation, the impact of marital and parental status variables did not change except that now the difference between the unmarried and childless (b) and the married with children (e) was significant. Again, overall, those who were never married and childless were most likely to receive assistance with transportation, followed by those who were married and had children. Like Table 2, for those who were currently unmarried (b and d), being childless reduced the receipt of assistance with transportation. With regard to control variables, results were similar with regard to those obtained for domestic support for most variables. However, differences were evident with regard to age (no longer significant) and living arrangements (those who lived alone were more likely to receive assistance with transportation). With regard to socioeconomic factors, in contrast with the previous findings, individuals with moderately high levels of education were more apt to receive support than those with either very low or very high levels of education. As well, income, home ownership, and length of residence were no longer significant.

The results of the regression of emotional support on marital and parental status are reported in Table 4. Before the introduction of control variables, we found a significant positive impact of being never married and childless: this group (a) was more likely to report receiving emotional support than those who were married and who had children (e). In addition, those who were not currently married, regardless of whether or not they had children (i.e., b and d), reported being more likely to receive emotional support than those who were currently married and had children. Among childless individuals, those who were not married (b) reported being more likely to receive emotional support than those who were married (c). Among previously

married individuals, no difference was apparent between those with and without children (b and d).

Following the introduction of control variables, most of these relationships were no longer significant. That is, other things being equal, those who were never married and childless (a) were no longer found to be more likely to report receiving emotional support from people outside the household than married individuals with children (e). Nor were there significant positive associations evident between being previously married, with or without children (i.e., b and d). Also, among childless individuals, those who were not currently married (b) were no longer more likely to receive emotional support from people outside the household than those who were married (c). Instead, the only difference that remained significant was between being previously married and having children versus being currently married with children: the former were more likely to report emotional support from individuals outside the household than were the latter.

< Insert Table 4 about here >

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 the receipt of domestic support or transportation assistance, when it came to emotional support, being female was associated with less perceived support. Once again, older individuals and visible minorities reported receiving lower levels of support than others whereas those with more friends available were more likely to report emotional support from others outside the household. In contrast, the availability of siblings and relatives were not significantly related to emotional support. In this case, living alone contributed to the likelihood of support. With regard to socioeconomic factors, individuals with higher levels of education and those who

were employed reported more support. Income as well as home ownership were no longer significant while older persons who reported longer length of residence once again had lower levels of support. Finally, with regard to health, the findings showed that in contrast to the pattern of results obtained for both forms of instrumental support, better self-reported health was associated with less support from others whereas the presence of activity limitations as well as chronic conditions increased the likelihood of support from others.

Finally, Table 5 reports analyses focusing specifically on those who were never married and childless, examining the role of various demographic, socioeconomic, and health factors in influencing the receipt of various forms of support. Overall, the findings reveal relatively few factors of importance. Those who owned their own homes were somewhat more likely to report receiving extra-household domestic support than those who did not own their own homes whereas those with activity limitations reported somewhat lower support than those without activity limitations. With regard to transportation, those with most of their relatives and friends living in the same city were more likely to report assistance whereas those with lower levels of education were less likely to report assistance. For emotional support, gender and education appeared to matter most: older never married and childless women as well as those with comparatively low levels of education were less likely to report receiving emotional support than were men and those with higher levels of education in similar situations.

< Insert Table 5 about here >

Discussion and Conclusions

This paper set out to examine the implications of marital and parental status – focusing specifically on having never been married/cohabited and childless – for the receipt of social support in later life. As one of the few studies to focus on this subpopulation and to address

functional support, it has several theoretical and empirical implications. First, our findings would appear to provide limited support for prior theoretical and empirical work suggesting that never married/cohabited and childless older adults are likely to be disadvantaged when it comes to accessing social support. Indeed, our results indicated the opposite with regard to instrumental support. Not only were older adults in general highly likely to receive such support, but also, given similar social, economic, and health characteristics, never married/cohabited and childless individuals were more rather than less likely to report having received support from people outside the household. The findings differed somewhat for emotional support. Yet, here too we found little evidence to indicate that never married and childless individuals were disadvantaged relative to those in other marital/parental status groups: instead, they differed little in their receipt of support from those in most other marital/parental status groups once demographic, socioeconomic and health factors were taken into account.

Does the lack of support found for assumptions regarding the negative implications of being never married and 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 so as 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, particularly with regard to instrumental forms of support. That is, never married/cohabited and childless individuals were more rather than less likely to report instrumental support from people outside the household. Also, previously married/childless and currently married/childless older adults were less likely to receive domestic and transportation assistance than never married childless adults as well as those who were married (currently,

previously) and who had children. Perhaps, as noted by Rook (2009: 104), "(t)his 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 or prone to social withdrawal... Yet, without subscribing to such negative views, 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." In the present study, it would seem that those who were disadvantaged when it came to accessing instrumental support from outside the household were those who were either currently or previously married but also childless. Thus, childlessness primarily appeared to be problematic for late life instrumental support among those embedded in marital relationships, either currently or in the past. Childlessness was also an issue for emotional support – for those who had been married in the past, having children was associated with greater emotional support.

While our findings do little to support assumptions regarding either the generally negative or neutral implications of being never married/cohabited and childless for the receipt of support, neither do they appear to provide clear support for the view that they are comparatively advantaged in later life: that is, unlike other older adults, never married childless individuals, particularly women, tend to be socially active, resourceful, and therefore, to benefit from close ties with selected kin (i.e., siblings and their families, cousins, nieces, nephews) as well as to non-kin (e.g., friends). Although it may well be that never married and childless individuals benefit from sibling ties and so forth, this appears to be restricted to instrumental forms of support. Why never married/childless older adults would receive greater instrumental than emotional support through such ties is less clear. Perhaps never married and childless individuals, despite being socially active and resourceful, are also those who have not cultivated strong

emotional ties with others, including the larger network of relatives, friends, and others. Alternatively, this may be a gendered pattern, something that our study did not address.

Overall, these findings would seem to point to considerable variability and complexity when it comes to the receipt 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, they 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 terms of the marital/family history within which these relationships are embedded. As a result, childlessness may not be problematic for support among those who have never married but may well be for those who have.

A major strength of the 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 only included those living in the community. Sample size restrictions also meant that data on specific marital and parental status groups (e.g., divorced, separated and widowed; married and cohabiting) were combined thereby implying homogeneity within some of the categories; consequently, we were unable to address distinctions among specific subgroups. Yet, as noted, the implications of being divorced/separated rather than being widowed for the receipt of kin and non-kin support of various types may well differ across such groups. The role of gender and other factors (e.g., health, SES) in influencing the impact of marital and parental status on social support receipt was also not considered. Yet, it has been suggested that "gender interacts with marital status to

influence the composition of caregiving networks" (Barrett and Lynch, 1999:695). Overcoming such limitations will be essential for future research on these and related questions.

Our analyses also were hampered by the fact that the sample selection criteria included a somewhat weak sampling frame, a weakness in part attributable to the exclusion of households without telephones and those who were exclusively cellular phone users from the sampling frame (Statistics Canada, 2009). 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. In addition, as noted above, our measures of instrumental support equated support received during the past year with that projected to have been available if needed. Although an advance over studies focusing on perceived receipt alone, potential discrepancies between perceived and received support may be important to consider.

Finally, it should be noted that our data do not speak to the overall levels of support received by older adults but rather, only to the receipt of support from others living outside the individual's household. Yet, whereas almost all of those who are currently married are likely to live with at least one other person, the vast majority of those who were never married or previously married and childless are likely to be living 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, therefore points to the need for research 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, the receipt of support may have been underestimated for those who were married or who lived with children 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% are 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 being never married and childless 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 being never married and childless in later life: such individuals appear to fare better than those in other union types when it comes to extra-household instrumental support but not when it comes to emotional support. 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.

Notes

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

Variable	M or %	S.D.
Domestic assistance (1 = yes)[a]	69.7%	–
Transportation (1 = yes)[a]	84.7%	–
Emotional support (1 = yes)[a]	39.5%	–
Marital and parental status		
Never married/cohabited and childless	3.2%	–
Not married/cohabiting and childless	2.7%	–
Married/cohabiting and childless	5.5%	–
Not married/cohabiting and have children	28.1%	–
Married/cohabiting and have children	60.6%	–
Female (1 = yes)	46.1%	–
Age		
60-64	28.8%	–
65-74	39.1%	–
75 or older	32.1%	–
Number of siblings (0, 1, …, 4+)	2.27	1.465
Living alone (1 = yes)	25.9%	
Visible minority (1 = yes)	6.2%	–
Most relatives live in the same city/region (1 = yes)	42.8%	–
Most friends live in the same city/region (1 = yes)	76.3%	–
Education		
Less than HS	37.4%	–
HS	15.8%	–
Some post-secondary	8.7%	–
College/trade school	20.0%	–
Bachelor's or higher	18.1%	–
Employment		
Employed	18.2%	–
Others	14.3%	–
Retired	67.5%	–
Household income		
<$30,000	22.4%	–
$30,000-59999	27.2%	–
$60,000-99,999	12.5%	–
Income missing	30.2%	–
$100,000 or more	7.7%	–
Home ownership (1 = yes)	80.2%	–
Length of residence (1 = < 6 months, …,		
6 = 10 years or more)	5.29	1.215
Self-reported health (1 = poor, …,		
5 = excellent)	3.36	1.119
Activity limitation (1 = yes)	56.4%	–
Chronic illness (1 = yes)	62.3%	–
N	11,503	

[a] See text for details.

Note: Weighted means or percentages, unweighted *N*.

Source: The 2007 Canadian General Social Survey.

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	Model 1 b	Model 1 S.E.	Model 2 b	Model 2 S.E
Marital and parental status				
Never married/cohabited and childless (a)	-1.262 **	0.426	1.411 ***†	0.199
Not married/cohabiting and childless (b)	-0.254 ***	0.065	-0.181 *	0.077
Married/cohabiting and childless (c)	-0.127 *	0.061	-0.133 *	0.060
Not married/cohabiting and have children (d)	-0.090 **	0.027	-0.005 †	0.045
Married/cohabiting and have children[a] (e)				
Linear contrast				
(b) vs. (c) (z-value)	-1.390	–	-0.500	–
(b) vs. (d) (z-value)	-2.440 *	–	-2.650 **	–
Female (1 = yes)	–	–	0.043	0.028
Age				
60-64[a]				
65-74	–	–	-0.022	0.032
75 or older	–	–	-0.186 ***	0.038
Number of siblings	–	–	0.019 *	0.009
Live alone (1 = yes)	–	–	0.022	0.045
Visible minority (1 = yes)	–	–	-0.401 ***	0.062
Most relatives live in the same city (1 = yes)	–	–	0.130 ***	0.025
Most friends live in the same city (1 = yes)	–	–	0.112 ***	0.029
Education				
Less than HS	–	–	0.184 ***	0.040
HS	–	–	0.163 ***	0.044
Some post-secondary	–	–	0.071	0.050
College/trade school	–	–	0.092 *	0.039
Bachelor's or higher[a]				
Employment				
Employed	–	–	-0.053	0.037
Others	–	–	-0.090 *	0.036
Retired[a]				
Household income				
<$30,000	–	–	0.054	0.059
$30,000-59999	–	–	0.119 *	0.056
$60,000-99,999	–	–	0.210 **	0.061
$100,000 or more[a]				
Home ownership (1 = yes)	–	–	0.065 *	0.033
Length of residence	–	–	-0.033 **	0.011
Self-reported health	–	–	0.100 ***	0.013
Activity limitation (1 = yes)	–	–	-0.145 ***	0.028
Chronic illness (1 = yes)	–	–	-0.077 **	0.029
Intercept	0.657 ***	0.019	0.140	0.106
Log likelihood	-8610		-8002	
rho	0.478	0.182	-0.758 **	0.108
N	11,188		10,740	

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

† $p < .05$ for the difference in b's between models 1 and 2.

[a] Reference group.

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

Source: The 2007 Canadian General Social Survey.

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	Model 1		Model 2	
	b	S.E.	b	S.E
Marital and parental status				
Never married/cohabited and childless (a)	1.490 ***	0.044	1.209 ***	0.212
Not married/cohabiting and childless (b)	-0.126	0.064	-0.267 **	0.087
Married/cohabiting and childless (c)	-0.169 **	0.060	-0.183 **	0.067
Not married/cohabiting and have children (d)	0.019	0.026	-0.070 †	0.050
Married/cohabiting and have children[a] (e)				
Linear contrast				
(b) vs. (c) (z-value)	0.580	−	-0.820	−
(b) vs. (d) (z-value)	-2.190 *	−	-2.650 **	−
Female (1 = yes)	−	−	-0.051	0.033
Age				
60-64[a]				
65-74	−	−	-0.020	0.037
75 or older	−	−	-0.056	0.044
Number of siblings	−	−	0.027 **	0.010
Live alone (1 = yes)	−	−	0.178 **	0.051
Visible minority (1 = yes)	−	−	-0.506 ***	0.068
Most relatives live in the same city (1 = yes)	−	−	0.112 ***	0.030
Most friends live in the same city (1 = yes)	−	−	0.216 ***	0.035
Education				
Less than HS	−	−	0.075	0.048
HS	−	−	0.092	0.052
Some post-secondary	−	−	0.172 **	0.058
College/trade school	−	−	0.120 **	0.045
Bachelor's or higher[a]				
Employment				
Employed	−	−	-0.052	0.043
Others	−	−	-0.109 **	0.041
Retired[a]				
Household income				
<$30,000	−	−	-0.075	0.069
$30,000-59999	−	−	-0.012	0.064
$60,000-99,999	−	−	0.097	0.072
$100,000 or more[a]				
Home ownership (1 = yes)	−	−	0.008	0.038
Length of residence	−	−	0.003	0.012
Self-reported health	−	−	0.098 ***	0.016
Activity limitation (1 = yes)	−	−	-0.097 **	0.033
Chronic illness (1 = yes)	−	−	0.021	0.032
Intercept	0.958 ***	0.019	0.469 ***	0.120
Log likelihood	-6374		-5928	
rho	-0.980 ***	0.084	-0.781 *	0.133
N	11,251		10,806	

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

[a] Reference group.

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

Source: The 2007 Canadian General Social Survey.

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	Model 1 b	Model 1 S.E.	Model 2 b	Model 2 S.E
Marital and parental status				
Never married/cohabited and childless (a)	2.269 ***	0.071	-0.861 †	0.577
Not married/cohabiting and childless (b)	0.285 ***	0.061	0.111 †	0.078
Married/cohabiting and childless (c)	-0.066	0.059	-0.044	0.062
Not married/cohabiting and have children (d)	0.365 ***	0.025	0.187 ***†	0.046
Married/cohabiting and have children[a] (e)				
Linear contrast				
(b) vs. (c) (z-value)	4.230 ***	–	1.610	–
(b) vs. (d) (z-value)	-1.370	–	-1.130	–
Female (1 = yes)	–	–	-0.573 ***	0.031
Age				
60-64[a]				
65-74	–	–	-0.135 ***	0.032
75 or older	–	–	-0.174 ***	0.039
Number of siblings	–	–	-0.016	0.009
Live alone (1 = yes)	–	–	0.116 *	0.046
Visible minority (1 = yes)	–	–	-0.205 **	0.065
Most relatives live in the same city (1 = yes)	–	–	0.020	0.026
Most friends live in the same city (1 = yes)	–	–	0.153 ***	0.031
Education				
Less than HS	–	–	-0.320 ***	0.041
HS	–	–	-0.213 ***	0.046
Some post-secondary	–	–	0.021	0.052
College/trade school	–	–	-0.103 *	0.040
Bachelor's or higher[a]				
Employment				
Employed	–	–	0.107 **	0.037
Others	–	–	-0.066	0.036
Retired[a]				
Household income				
<$30,000	–	–	0.000	0.061
$30,000-59999	–	–	0.026	0.057
$60,000-99,999	–	–	0.070	0.062
$100,000 or more[a]				
Home ownership (1 = yes)	–	–	0.090 **	0.034
Length of residence	–	–	-0.056 ***	0.011
Self-reported health	–	–	-0.042 **	0.013
Activity limitation (1 = yes)	–	–	0.220 ***	0.029
Chronic illness (1 = yes)	–	–	0.147 ***	0.029
Intercept	-0.391 ***	0.017	0.299 **	0.108
Log likelihood	-9573		-8795	
rho	-0.958 ***	0.027	0.405	0.272
N	11,377		10,925	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tailed test)
† $p< .05$ for the difference in b's between models 1 and 2.
[a] Reference group.
Note: All models include a dummy variable for missing household income.
Source: The 2007 Canadian General Social Survey.

Table 5 Probit Models of Receiving Social Support on Marital/Parental Status: Older Never Married (or Cohabited) and Chidless Canadians (Age 60+), 2007

Variable	Domestic b	Domestic S.E	Transportation b	Transportation S.E	Emotional b	Emotional S.E
Female (1 = yes)	-0.032	0.139	-0.003	0.164	-0.508 ***	0.136
Age						
60-64[a]						
65-74	0.315 †	0.175	-0.143	0.224	-0.251	0.168
75 or older	0.112	0.190	-0.236	0.239	-0.296	0.186
Number of siblings	0.051	0.044	0.030	0.053	0.009	0.044
Live alone (1 = yes)	0.077	0.195	0.091	0.224	0.034	0.190
Visible minority (1 = yes)	0.186	0.327	-0.245	0.357	-0.434	0.305
Most relatives live in the same city (1 = yes)	0.218	0.139	0.438 *	0.172	0.228 †	0.135
Most friends live in the same city (1 = yes)	0.123	0.157	0.496 **	0.173	0.066	0.156
Education						
Less than HS	0.006	0.197	-0.499 *	0.228	-0.873 ***	0.195
HS	-0.126	0.211	-0.557 *	0.244	-0.626 **	0.207
Some post-secondary	0.064	0.274	0.395	0.424	-0.150	0.254
College/trade school	-0.176	0.186	-0.097	0.237	-0.269	0.177
Bachelor's or higher[a]						
Employment						
Employed	0.207	0.208	0.203	0.268	0.315	0.196
Others	-0.191	0.222	-0.039	0.265	-0.090	0.228
Retired[a]						
Household income						
<$30,000	0.036	0.388	0.005	0.465	0.122	0.376
$30,000-59999	0.203	0.377	0.401	0.462	0.127	0.364
$60,000-99,999	0.521	0.449	0.526	0.549	0.176	0.428
$100,000 or more[a]						
Home ownership (1 = yes)	0.304 *	0.144	0.243	0.170	0.078	0.140
Length of residence	-0.082	0.053	0.053	0.059	-0.009	0.050
Self-reported health	0.021	0.071	-0.055	0.085	-0.116	0.072
Activity limitation (1 = yes)	-0.372 *	0.145	-0.252	0.175	0.034	0.140
Chronic illness (1 = yes)	0.004	0.145	-0.066	0.173	0.125	0.142
Intercept	0.270	0.627	0.453	0.737	0.550	0.622
Log likelihood	-270		-182		-283	
N	456		459		463	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < .10$ (two-tailed test)

[a] Reference group.

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

Source: The 2007 Canadian General Social Survey.

Appendix A Probit (Selection) Equations of Being Never Married (or Cohabited) and Childless: Older Canadians (age 60+), 2007
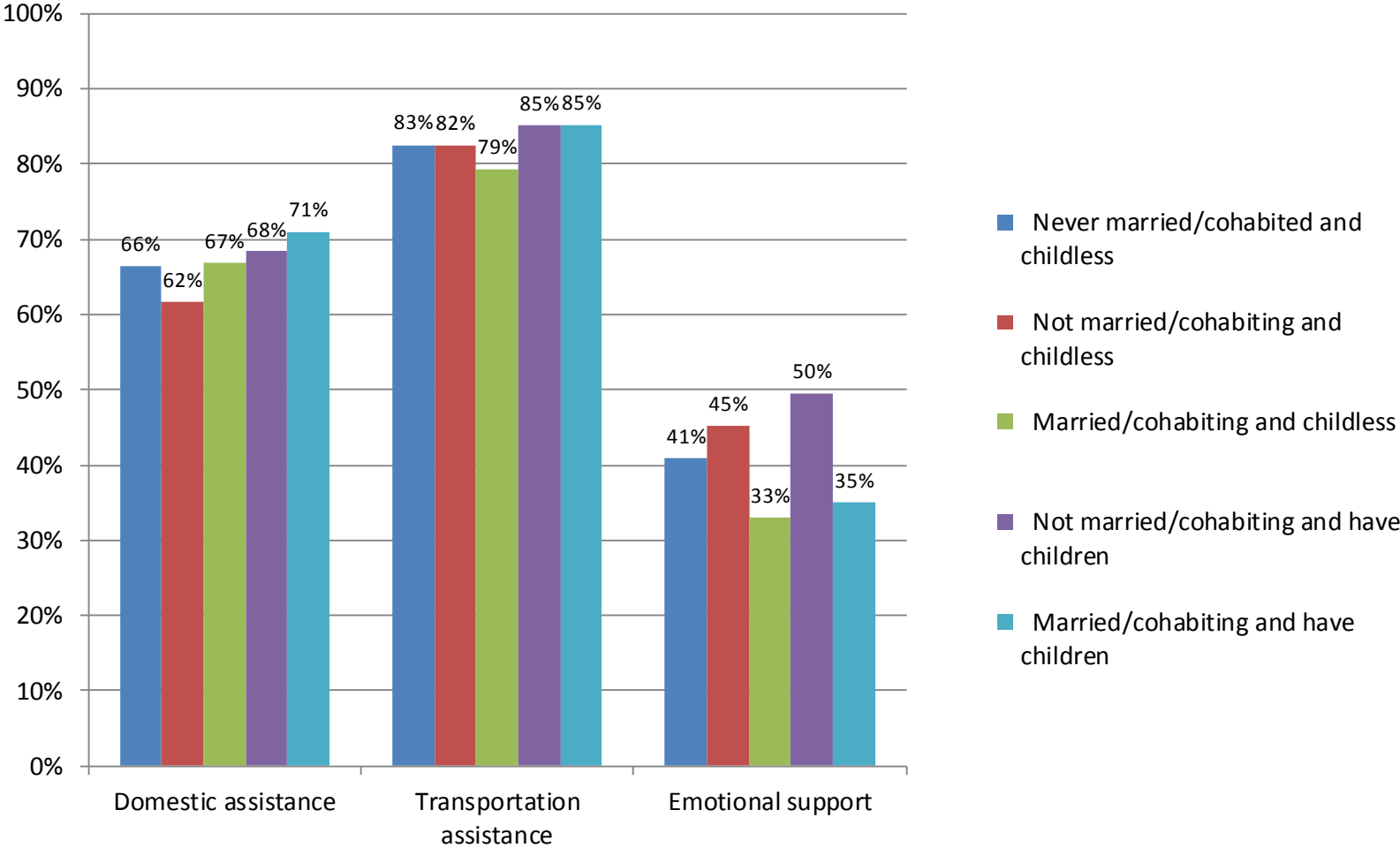
Variable	Domestic		Transportation		Emotional	
	b	S.E.	b	S.E.	b	S.E.
Female	-0.020	0.044	-0.016	0.044	-0.003	0.045
Age	0.006 *	0.003	0.006 *	0.003	0.008 **	0.003
Minority	0.265 **	0.100	0.222 *	0.101	0.160	0.105
Education in 10 levels	0.047 ***	0.007	0.047 ***	0.007	0.046 ***	0.007
Catholic	0.185 *	0.072	0.183 *	0.071	0.169 *	0.077
Protestant	0.154 *	0.066	0.133 *	0.066	0.078	0.073
Other religion	-0.043	0.119	-0.040	0.118	-0.014	0.128
Province						
Newfoundland and Labrador	0.210	0.114	0.271 *	0.113	0.179	0.123
P.E.I.	0.409 **	0.122	0.467 ***	0.120	0.415 **	0.131
Nova Scotia	0.238 *	0.107	0.257 *	0.108	0.071	0.113
New Brunswick	0.233 *	0.109	0.248 *	0.112	0.120	0.113
Quebec	0.175 *	0.083	0.191 *	0.083	0.248 **	0.090
Ontario	0.077	0.072	0.164 *	0.071	0.100	0.077
Manitoba	0.235 *	0.101	0.288 **	0.102	0.145	0.112
Saskatchewan	0.312 **	0.108	0.300 **	0.108	0.121	0.115
Alberta	0.120	0.097	0.136	0.095	0.065	0.105
Intercept	-2.663 ***	0.217	-2.681 ***	0.224	-2.769 ***	0.223
N	10740		10806		11377	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < .10$ (two-tailed test)

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

Source: The 2007 Canadian General Social Survey.

Figure 1 Percent of Receiving Support by Marital and Parental Status: Older Canadians (Age 60+), 2007

Legend:
- Never married/cohabited and childless
- Not married/cohabiting and childless
- Married/cohabiting and childless
- Not married/cohabiting and have children
- Married/cohabiting and have children

Domestic assistance: 66%, 62%, 67%, 68%, 71%
Transportation assistance: 83%, 82%, 79%, 85%, 85%
Emotional support: 41%, 45%, 33%, 50%, 35%

Note: Differences in all measures of social support are statistically significant based a chi-square test of independence ($p < .001$).
Source: The 2007 Canadian General Social Survey.