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Social Isolation and Loneliness: the influences of the social determinants of health

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Written by: Lyne Ouellet, University of New Brunswick
Special mention – Dr. Albert Banerjee, St. Thomas University Research Chair

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EMAIL: info@appta.ca

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Key messages

- **Social isolation and loneliness impact older adults' health and how they might access the healthcare system – resulting in poorer individual health outcomes and an increase in healthcare expenditures.**

- **How one might become isolated or lonely can be linked to the social determinants of health. Interventions aimed at alleviating these could decrease the incidence of social isolation and/or loneliness**

- **Due to the multi-factorial nature of social isolation and loneliness, an integration of individual (meaning the older adult can make changes), community and societal strategies are likely needed.**

- **Social prescribing and community connector programs are promising emerging practices aimed at integrating actions on these 3 levels**

Introduction

In 2017, the US Surgeon General noted that social isolation and loneliness among the world's elderly is a global epidemic (1). Estimates of older community-dwelling Canadians who experience some form of isolation range from 19-24%, over 30% are at risk of isolation and 10-50% report feeling lonely (2–4). This document will provide an overview of this multi-factorial issue, looking specifically at older Canadians and how they might come to be at a higher risk of being socially isolated and/or lonely, its impact on health and well-being and what approaches have been found to be effective in addressing this.

The terms social isolation and loneliness are often used together but they have different meanings; while both have been shown to increase morbidity and mortality, they have also been demonstrated to be separate experiences that impact an individual in different ways (5). Loneliness is used to describe the subjective feelings that are negatively associated with perception of a lack of a wider social network, or that existing relationships may lack quality (5,6). Social isolation is generally a more objective term, used to describe the number, or quantity, of social contacts one has. Each can be present within an individual but can also exist independently of the other. For instance, a person may be socially isolated but content with being alone or having minimal social contact (7). In contrast, a person may also have people they can rely on for assistance, but still feel lonely, as perhaps those relationships are not fulfilling. Researchers have suggested that someone who participates socially may still not feel satisfied depending on their expectations about how their network should be composed (8). Others have noted that it is important to understand these as separate experiences in order to inform interventions that might be most appropriate; however, it is also important to examine them together in order to understand all factors in a more comprehensive manner (9). This document will address the issues together and the acronym SI/L is used in reference to both.

Social isolation and loneliness impacts health

Much research has focused on the links between an individual's health and whether or not they are SI/L (6,10,11). Courtin and Knapp (6) found that half of the studies examining SI/L attempted to look at it in the context of the impact on one's health and others have found health the number one factor for being lonely (12). Both causal relationships may be true depending on an

individual's situation: An individual's health can contribute to becoming SI/L, but equally, being isolated and/or lonely can contribute to poor health. For example, having poor health might increase challenges for older adults when leaving their homes to pick up medication, shop for groceries, or attend events (13). This makes it difficult for older adults with poor health to participate in activities that might allow them to connect with others or to even meet basic physical needs to maintain good health. At the same time, being lonely or socially isolated has been associated with a decrease in mental processing speeds, verbal fluency and visual memory, as well as lower immediate and delayed memory, all of which may contribute to poor cognition (14,15). Having decreased cognition can then lead to challenges in a person's ability to connect socially, possibly leading them to become isolated. Being lonely has also been associated with a disruption in the inflammatory process, leading to an increased risk of developing depression, fatigue and pain (16).

The outcome from these mutually reinforcing cycles is that social isolation has been associated with increased risk of dementia (15,17), increased risk of cardiovascular disease (18), increased re-admission to hospital (19), risk of relocation to institutionalized care such as nursing homes (20) and all-cause mortalities (7,21,22). The increased risk of mortality has been described as equivalent to smoking 15 cigarettes a day, or having an alcohol disorder, and surpasses the risks associated with obesity (7). Conversely, those who have better social relationships in older age have a 50% increased likelihood of survival regardless of previous health status, are more apt to adhere to medical regimens, and have less hospitalization time (7).

Access to health care services differs when socially isolated and/or lonely

Researchers have observed that those who are SI/L use the healthcare system in ways that differ from those who are not reported to be isolated or lonely (19). Studies indicate that those who lack robust social networks may access health care services as a substitute for the relationships they do not have, whereas having a support network might assist the older adult in making sound decisions about their healthcare by having someone to consult with and alleviate some of their concerns (23). A recent review of the literature found that healthcare expenditures were higher for those who were isolated and/or lonely (23,24). There were some slight differences noted when accounting for whether someone was isolated versus lonely. Those who were lonely had an increase in indirect costs amounting to 3.5 billion euros, representing an 8.1% increase in total expenditure (24). However, after adjusting for socioeconomic and health status (meaning those who

with less income/poorer health), those who were lonely actually accounted for less healthcare spending (23,24) suggesting that those who have decreased income, decreased health and are lonely may actually have barriers to accessing healthcare (23). What these findings do not make clear is how this relates to health outcomes. As delayed access to care might lead to poorer outcomes, an increase in spending might actually occur (23,24).

Drivers of social isolation and loneliness

The reasons someone might come to be SI/L are complex and varied and can occur at the individual, community, or societal level (25). All of these could be viewed within the lens of the impact that the social determinants of health (SDH) have on an individual's health and well-being. These are the factors that are non-medical and yet still impact health outcomes. Research indicates that the SDH account for up to 80% of health outcomes as compared to individual lifestyle choices. Furthermore, it has been suggested that making an impact on sectors outside of the healthcare system has a greater impact on population health than does increasing health services (26,27).

The Government of Canada has identified twelve SDH: income and social status; employment and working conditions; education and literacy; childhood experiences; physical environments; social supports and coping skills; healthy behaviours; access to health services; biology and genetic endowment; gender; race/racism (28). The reasons someone might become socially isolated can be linked to any of these, but several are more likely to be factors. In Canada, research has noted that older adults who were most likely to be socially isolated *and* lonely were Indigenous, LGBTQ, have a physical disability, live alone or have a low income (3,29). The Canadian SDH that are most closely linked with SI/L will be discussed below, along with interventions that have been found to be effective.

Social determinants of health and impact on social isolation and loneliness in older adults

Income and Social Status

Recent data from the Canadian Longitudinal Study on Aging (CLSA) suggests that having a lower income contributes to an increased risk of being SI/L (30). An interesting theory as to why income might impact one's social interactions has been proposed. Having limited resources and living in a deprived environment (lack of affordable housing, poor transportation access and more) are reasons that can easily be understood to contribute to challenges with attending activities and connecting with others in a social manner (25,31,32). However, others have suggested that as older adults age, their income has a tendency to decrease. As a result, people of a similar age with whom they would associate with are likely also experiencing similar economical pressures, making it difficult for either person to make plans to meet or even help each other (33).

Box 1: The communal food share program – United Kingdom

This program took into consideration that reduced eating has been found to decrease one's ability to share in meals or social activities (67) and that those who are food insecure have been found to be significantly lonelier than food secure individuals (68). The program receives donated surplus food from retailers and volunteers create a 3-course meal that is consumed in a communal setting. After attending, participants equated food benefits to social benefits and an increase in the development of friendships (69).

Future studies of programs that combine poverty reduction strategies and their impact on social isolation and loneliness would be beneficial.

Furthermore, some older adults might need financial assistance from others and over time this may lead to developing strained relationships with those in their social network as finances become a source of tension (33). Further data from the CLSA shows that having a higher education level also increased the risk of being socially isolated (30). This last factor might be related to how an increasing level of education might mean a person has to move to gain employment and therefore might decrease their social network and family contacts in doing so (30).

Social Support (and coping skills)

Studies have found that living alone or being unmarried, widowed or divorced increases the risk of older adults being SI/L (34–36). Being alone has implications on whether individuals feel comfortable venturing out to connect with others. Those who are widowed, for instance, have described how they used to go out with their partners to attend social functions, and now they lack that support. They might long for how things used to be, even picturing “an empty chair” next to them while they are part of a social gathering. This then leads to feelings of loneliness, despite being in the presence of many others (37).

Living alone can create a situation where an older adult might go for days without speaking to others. Researchers have identified this as a frightening thought for older adults, leading them to be overwhelmed when thinking about building new friendships. Some have expressed feeling frightened when thinking of what their plan might be should they fall ill and no one is there to check on them. This in turn leads to increased feelings of loneliness and vulnerability (35). Both can create a feedback loop, where one continues to withdraw and have difficulty gaining support.

Challenges facing an older adult when going outside their home for even basic needs may mean they rely on others for these essentials (13). If they live alone and have a decreased social support network, some of these basic needs might not be met. Geography may play a role in this situation: one might be inclined to believe that living in a rural area would lead to more social isolation or loneliness. However, studies generally do not support this (25,38,39). Rather both rural and urban environments have benefits and shortcomings. Older adults living in rural environments have reported larger social networks than people living in urban settings who tend to have smaller social networks (39). Those in rural areas who belonged to a minority group had a more challenging time connecting and reported more feelings of loneliness (39), and those with fewer relatives living nearby experienced more isolation than those in urban areas (38). Rural locations may also pose risks of social isolation depending on how long that person has lived there. For instance, if one grew up in the area, social ties will likely be quite strong, whereas if they move to a rural location where they had never previously resided, they will likely not feel as integrated (40).

There are numerous programs aimed at increasing social support, both in group formats or as one-on-one activities (40, 41). They may include befriending programs (38) or peer support (38,39), which generally have participants that are of the same age group. They may be intergenerational in nature (55, 70-72), which serves the dual purpose of decreasing agism by

bringing different generations together. Some programs include support provided to the older adult in order to attend social activities, thus strengthening the likelihood the older adult will be able to attend (65,66). Their effectiveness has been found to be more closely related to what resonates best with the individual who is SI/L.

Healthy Behaviours

Some studies have suggested that being socially connected gives the individual access to more information to make healthier choices and more social support to be able to have access to resources allowing for healthy behaviors (41,42). Others have suggested that partaking in unhealthy behaviours such as smoking or being overweight might be perceived as socially unacceptable, and potentially lead to becoming more socially isolated (43).

Understanding this as a social determinant of health is a situation of a chicken and egg: studies have not been able to identify whether social isolation and loneliness causes certain health behaviors, or whether certain behaviors contribute to social isolation and/or loneliness.

Research indicates that those who were identified as lonely were more likely to be overweight and obese as measured by BMI (body mass index), to be smokers and to be less confident in their ability to walk for leisure, transport or recreation (43). Those who were socially isolated have been found to be less likely to be physically active, or to consume five or more daily servings of fruits and/or vegetables (41). They are also more likely to smoke (41), and consume higher amounts of alcohol (42). A recent review of physical activity interventions indicated the incorporation of activity programs increased older adults' social functioning, especially for those adults who were previously sedentary, depressed or had long term caring responsibilities. The reason is likely two-fold: physical activity has biological benefits (improving balance, endurance, independence) which then builds self-esteem. Physical activity has also been seen to improve one's social well-being by providing opportunities to meet others and participate in a shared experience (44).

Gender

Gender seems to have an influence on whether a person is at risk of social isolation and/or loneliness. For instance, women have been identified as being more likely to report physical impacts in response to loneliness, whereas men were more likely to report mental health impacts due to loneliness (6). The National Seniors Council in Canada published a report in 2014 which found senior men where most at risk of isolation (3). However the Canadian Longitudinal Study on Aging (2018) released data collected between 2010-2015 that showed senior women felt more lonely and experienced more social isolation than men (44). The difference with respect to gender may be associated with secondary factors, such as marital status (being widowed) and living alone, as more women tend to experience both of these (30).

Box 4: *Men's Sheds*

Men's Sheds started in Australia and exist in Canada. They are communal spaces that provide men with opportunities to interact while partaking in a shared activity. The activities vary, ranging from woodworking, to model railways or musical endeavours (73). For women, a Friendship Enhancement Programme has been developed. It uses guided techniques to allow women to develop new relationships and enhance existing ones. After participating for a year, ¼ of those who were previously lonely were no longer, and 1/3 had decreased their levels of loneliness significantly (74).

Women and men also experience SI/L differently. Although both rural men and women report no difference in the number of social interactions, rural men tended to be less able to open up to family and friends and are less likely to belong to a place of worship. Rural women reported feelings of loneliness and feeling left out more often than men and were more likely to be without a spouse or partner (45).

LGBTQ+ Identity

Literature from Canada suggests that LGBTQ+ identity is a factor under which gender identity influences social isolation. Understanding the historical context of what is means to be LGBTQ+ in Canada is also important in understanding sexual identity's role in being at an increased risk of isolation and/or loneliness. Over a long period, society was not accepting of those who are LGBTQ+. It was illegal in Canada until 1969 (46) and was even defined as a sociopathic personality disturbance in the Diagnostic and Statistical Manual of Mental Disorders until 1973 (47–49). In this

context, LGBTQ+ people were at high risk of loneliness due to having to hide their sexual identities in most social relationships (50).

Social acceptance has grown and repressive laws have been changed since those years; however, challenges still exist for the LGBTQ+ community. For older adults who grew up in the era of denying their full self due to societal pressures, they may have removed themselves from their biological family for fear of conflict, leading to a decreased support network in their later years. Research also suggests they tend to have fewer children than their heterosexual counterparts, once again leaving them with a decreased support network in their later years in life (51). Ironically, today, much focus is put on avoiding differentiation, which may then overlook the very real circumstances an older adult who is LGBTQ+ experiences. Health professionals may have well-meaning intentions, but if they do not acknowledge differences in the aging process, they may then further alienate an LGBTQ+ person from accessing resources that could be helpful (48).

Box 5: The SPRY program

One promising strategy has been created in the US, using LGBTQ+ representatives to lead decisions as to what interventions are best suited for the needs of that population. As a result of this engagement, the SPRY program aimed to address social isolation and acknowledged that traditional mental health services may actually create a sense of distrust among older LGBTQ+ adults. They have thus used trained peer support and outreach workers to welcome LGBTQ+ people into a variety of support groups, including drop-in sessions and shared meals among members. Attendees have reported greater feelings of social connectedness and a decrease in social isolation (48).

Culture and Race

The Canadian Social Survey (CSS), which is a quarterly cross-sectional survey of Canadians aged 15 and older, recently found that among Canada's largest groups of visible minorities, the prevalence of loneliness is equivalent to the general population (52). Interestingly, it notes that Indigenous survey respondents were living off-reserve, which may explain why the results do not reflect previous data that indicates Indigenous peoples are at increased risk of SI/L (3, 24, 53, 54). However, it is important to note that the literature contributes little to our understanding of how visible minorities experience SI/L and more research and effort is required to address the current gaps in understanding.

Discrimination against Indigenous Canadians and Historical Trauma

The impact of culture and the challenges people face from others is a factor in their ability to connect with their community and resources. To understand the issues surrounding SI/L among Indigenous older adults, it is important to look at their history in this country. After the 1867 Indian Act, Indigenous Canadians were forced to assimilate into European culture. This included federally imposed reserve systems, taking away children from families and placing them in residential school or with non-Indigenous foster families, and forced sterilization of some Indigenous adults (55). Additionally, colonialism has resulted in cultural, familial and socioeconomic disparities between Indigenous and non-Indigenous Canadians (55).

Transgenerational Trauma

"*a collective complex trauma inflicted on a group who share an identity or affiliation*".

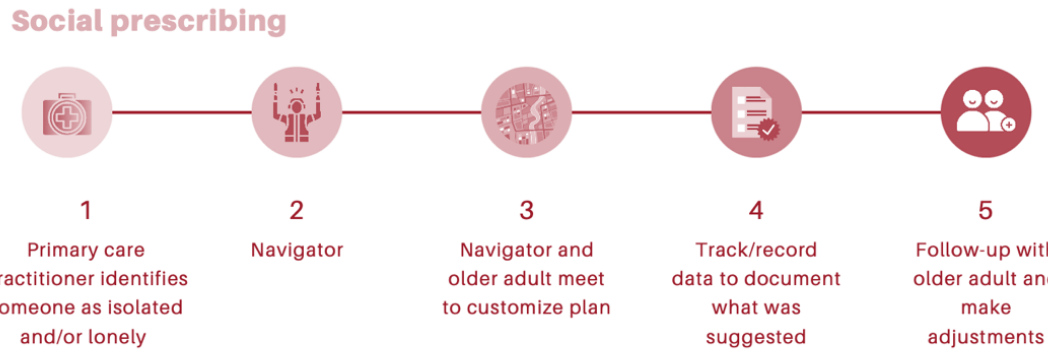
Research on social isolation and integration among Indigenous older adults has explored diverse issues including inter and intra group relations. For instance, Na & Hample (2016) recognise that social integration can involve intergroup and intragroup relationships. Interactions with members from the same group – intra group relations - may have a positive effect on an older adult's health. Whereas interactions with differing ethnic groups – inter group relations - may serve as a bridge to the wider community and also contribute to one's health (56). Indigenous Canadians tend to form tight-knit social communities, which benefits older individuals, however the effects of colonialism and prejudice have contributed to decreased interactions with inter-ethnic groups, a lower sense of belonging to the outer community (outside of their ethnic group) and a lower sense of generalized trust of this outer community. They also found Indigenous older adults reported lower levels of physical and mental health than non-Indigenous Canadians (56). Finally, Kolahdooz and colleagues (2015) caution that differences between Indigenous Canadian communities must be considered (55).

Unfortunately, at this time, there seems to be little attention to developing specific interventions aimed at alleviating social isolation and/or loneliness among older Indigenous People. New Zealand appears to be a leader in attempting to understand the issue as it relates to Indigenous People in that country, but studies for interventions are also lacking here. (78-80). Given indigenous older adults have been recognized as one of the most at risk groups to be isolated and/or lonely, this area clearly warrants further investigation (29).

Integrating the individual, the community and society to address social isolation and loneliness

Along with the interventions already mentioned, the literature points to numerous other approaches that might be useful in improving older adults' social networks and their feelings of loneliness (34,57–59). Identifying the best approach for improving SI/L is not straightforward, because the reasons are multi-factorial, complex and unique to the individual. As an example, if an individual were to be socially uncomfortable in group settings, simply asking them to attend a group might cause more harm and lessen trust in the system that is attempting to assist them. Creating a system that can allow the creation of customized strategies tailored to the individual would be beneficial in assisting older adults in living a well-rounded, connected life.

The United Kingdom has been a world leader in implementing social programs intended to address loneliness, having established a Minister of Loneliness in Parliament in 2018. They have been using social prescribing as promoted by the Department of Health in the UK since 2006 (60). Social prescribing aims to make healthcare a more holistic endeavour, incorporating social solutions into health and well-being and moving away from a system that only treats an illness once presented, or an individual has entered a time of crisis (2). Rather than existing in the current biomedical model of health care, social prescribing focuses on the individual's strengths and what matters to them (61).



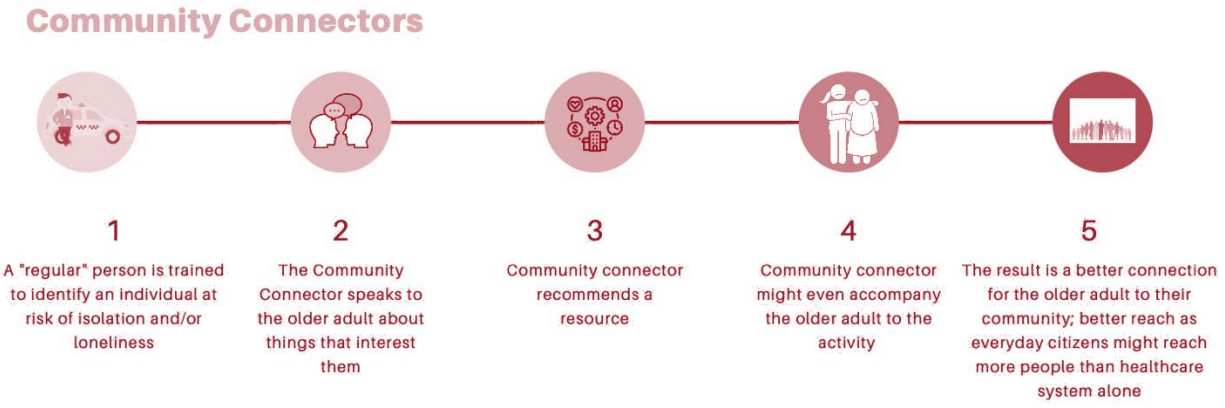
Many iterations of the social prescribing strategy are ongoing; however, programs are most robust when a physician (or any primary care practitioner) can consistently identify those at risk of being isolated and/or lonely and connect them with a navigator. The navigator's role is best when they are knowledgeable about the reasons the older adult is isolated and/or lonely, the strategies to use, and the resources available in the local community. Equally important, is the monitoring and tracking of data and follow-up to ensure the recommended intervention was useful, and if not, adaptations are made (2,60,61).

Canada is beginning to incorporate social prescribing strategies into healthcare practice. Ontario was the site of the country's first pilot from 2018-2020, and had the participation of 11 organizations in urban, rural and francophone communities (29). Results included a decrease in repeat visits, a decrease in feelings of loneliness in the individual by 49%, and an increased sense of belonging to community by 16%. Participants reported a sense of empowerment and knowledge, were given tools to better manage their health and were assisted in removing barriers to connecting with others in their community. The program's endeavours continued with the arrival of social distancing measures to mitigate the spread of Covid-19 (29). British Columbia has also started incorporating this strategy into various community practices (62,63).

Social prescribing relies heavily on involvement from the health care system. It requires that health professionals should be aware of SI/L in order to assess and identify it early, thereby preventing the various adverse health outcomes (11,64). Studies have found that while 60% of physicians in Canada screen for their patients' social needs, only 43% coordinate with social services and 36% are not aware of what social services are available in their community (29). Furthermore, many people do not have a consistent primary care practitioner. For example, in New Brunswick, it is estimated approximately 44,000 residents do not have a family physician (65). Of those who do have a family physician, only 55.8% can access them within 5 days (66). The emergency department may be the only option for regular, non-urgent care. Given the high turnaround and demand in such a department, it is not surprising that screening for SI/L is not necessarily routine (67).

Another strategy that is gaining attention to further strengthen social prescribing programs is the use of Community Connector programs (68,69). Their formats vary, but overall, Community Connector programs train community volunteers. Training includes how to identify someone who is or at risk of social isolation and/or loneliness and provides the Community Connector with information on community resources that might be relevant to the individual they are speaking with.

The Community Connector can then make a recommendation to the individual based on their conversation. It might also be that a Community Connector accompanies the individual to the activity they have identified to provide support and to strengthen the possibility of participation (68,69). By using citizens to connect older adults, it decreases the burden on the health care system and strengthens relationships between older adults to their community.



Considerations

Addressing the issue of SI/L is complex, as the social determinants that may contribute to this situation are multifaceted and unique to the individual. Social prescribing is a promising strategy that aims to integrate the health care system with one that looks at the person's social circumstances, providing a more holistic, integrated approach to ensuring their well-being is preserved. Community Connectors provide further reach by using an "eyes-on-the-ground" approach to identify and contact those who are isolated and lonely. In developing any of these approaches, it is important to remember success is closely tied to what interventions and programs exist in the community and whether older adults can access them. As such, an understanding of both the social determinants of health, their impacts and mapping of community resources are all important in moving forward.

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