

Content Analysis of Perceived Social Isolation Remedies Shared in a National E-Survey

Gail Low, Sofia von Humboldt, Gutman Gloria, Zhiwei Gao, Hunaina Allana, Anila Naz, Donna Wilson, Muneerah Vastani

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Abstract

Background: Older people are experts on what a quality social life looks like while living most at risk for COVID-19-related health harms. Older Canadians have helped raise awareness of the physical and mental detriments of social isolation. Remedial initiatives that build on older people's lived experiences are also important initiatives.

Objective: When public health restrictions were lifted in the Summer of 2022, we aimed to collect evidence grounded in older people's everyday lived experiences about transitioning into open spaces while COVID-19 still lingered.

Methods: This study was part of a larger e-survey project about mentally healthy living among 1,327 community-dwelling persons 60+ years of age. A sample stratified by age, sex, and education to approximate the Canadian population was asked: With COVID-19 public health measures lifting, based on your own experience, what would you suggest other older Canadians do to reduce social isolation? They responded as they saw fit.

Results: Content analysis of 1,189 open-text messages revealed four calls to action: 1) Cultivating community; 2) Making room for what's good; 3) Don't let your guard down; and 4) Voiced out challenges. All four remedies were similarly endorsed, regardless of messengers' age, sex, gender identity, and perceived health. Making room for what's good seemed more amiable for those navigating newly open spaces without a chronic illness. Education level was linked with endorsing guarded social transitions.

Conclusions: While COVID-19 is no longer a global health risk, a worrisome proportion of older people still live more isolated lives. We encourage health and social care practitioners and older people themselves to share the messages identified in this study with more isolated others.

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Original Manuscript

Paper Type: Original Research Paper**Content Analysis of Perceived Social Isolation Remedies Shared in a National E-Survey**

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Conclusion

While COVID-19 is no longer a global health risk, a worrisome proportion of older people still live more isolated lives. We encourage health and social care practitioners and older people themselves to

share the messages identified in this study with more isolated others.

Keywords: national e-survey, older persons, social isolation, remedy messages.







Content Analysis of Perceived Social Isolation Remedies Shared in a National E-Survey

1. Introduction

In any infectious disease outbreak, the public remains the most important asset because each person must take care of themselves and those who matter to them (WHO, 2020a). Public health messages which are evidence based are practical ways to help people at risk at any age (WHO, 2020b) such as through dispelling myths about self-protection practices (WHO, 2022a) and self- and mental health care (Center for Addiction and Mental Health, 2024). The public were also forewarned that people aged 60 and older were at a higher risk for needing intensive COVID-19-related care and for dying (Government of Canada, 2024).

Actual or potential threat of physical harm, and separation from familiar faces and places are frightening consequences of large-scale traumatic events (Hobfoll et al., 2007), such as the COVID-19 pandemic (Cocuzzo et al., 2022). In a national survey wherein, for some 23,000 Canadians aged 50 and older, being away from family was their biggest mental stressor during the pandemic (De Rubeis et al., 2022). Mundane practices like essential shopping were frightening (MHRC, 2021). Continuing to hear negative news about COVID-19 was also frightening (Dong & Yang, 2023). Older Canadians have been also the most likely age-group to adhere to public health measures (Gutman et al., 2021; Statistics Canada, 2021), and to harbor more fears than younger adults (75% versus 63% among younger adults, respectively) over lingering health threats after the COVID-19 pandemic ends (Mental Health Research Canada [MHRC], 2021).

Age is also an established risk factor for being socially isolated (Donovan & Blazer, 2020; Freedman & Nicolle, 2020), and some argue more so because of COVID-19-related public health measures (Smith et al., 2020). Socially isolated people lack regular company, comfort, and conversation due to, for example, larger geographic distances, health impediments, or tenuous and sparse ties (Murthy, 2023; NIA, 2022)¹. Early in the COVID-19 pandemic, Canada-wide surveys revealed 40% of older persons (NIA

¹ National Institute on Aging

& Telus Health, 2020) and 57% of late midlife and older adults (Gutman et al., 2021) self-identified as socially isolated. Well into the first year, about 1 in 3 older persons across Canada (Ooi et al., 2023) were socially isolated. Similar proportions were observed in 6 other countries (Su et al., 2023). While the COVID-19 virus is no longer a global health threat (WHO, 2024a), about 1 in 4 older people are still living more isolated lives than they did before the pandemic (WHO, 2024b).

Guiding Conceptual Framework

Public health messages about the risk of health-related harms of COVID-19 have cast older people in a primarily vulnerable light (Ehni & Wahl, 2020; Legacé et al., 2021). However, as Hobfoll et al. (2007) have long argued, pernicious problems stemming from large-scale traumatic events are more surmountable when the very people whose lives are or can be directly impacted have some means to tackle them. In keeping with our guiding framework (United Nations Department of Economic and Social Affairs, & United Nations Institute for Training and Research [UN DESA & UNITAR] (2020), people who either already are or are living at risk for being social isolated, and not by choice, could find solace in knowing that they are not alone in their struggles. In widely broadcast national surveys, older Canadians informed contemporaries that a lack of companionship can be detrimental to your overall health and well-being (NIA & Telus Health, 2020). Disrupted everyday social activities could make a person prone to poorer mental health (MHRC, 2021), such as from feeling left out and longing for a companion (Statistics Canada, 2021a). Older Canadians were helping to raise awareness of the detrimental effects of social isolation.

Good health promotion information, about mental wellness or the social relationships that help people stay this way, enhances risk-related awareness and capacity for remedial action (WHO, 2020b). People living harm's-way of an infectious illness are also keenly aware of the complex realities that they must juggle to stay healthy (Stangl et al., 2019). Prior to COVID-19, social isolation in later life had been linked with heart disease and stroke, depression, anxiety, and even premature death (Donovan & Blazer, 2020; Freedman & Nicolle, 2020; Tsutsumimoto et al., 2018).

With the advent of COVID-19, Sepúlveda-Loyola et al. (2020) observed similar secondary mental health harms across 5 countries, including Canada. Others' large-scale studies link smaller social networks to lower mental well-being (Röhr et al., 2020) and social participation (Raina et al., 2022), and living alone (Robb et al., 2020) with depressive symptoms.

It is also important to note that older people will experience the psychosocial impacts of COVID-19 differently (Ehni & Wahl, 2020). For some, small social circles seem to lessen emotional negativity (Carstensen et al., 2020) and depressive symptoms (Müller et al., 2021), and are a source of contentment (Menze et al., 2022). Lived experiences enhance people's capacity to be purveyors of solutions, from a wide variety of perspectives (UN DESA & UNITAR, 2020). Peers with lived experiences play an important role in instigating and augmenting others' mental wellness recovery work (CMHA, 2020; WHO, 2022b). A Canadian Coalition of Seniors Mental Health (2024) survey study also revealed that 1 in 5 responders were ill at ease talking with health care practitioners about being isolated. Older people are experts about their social positioning in life (WHO, 2024c), including their preferred wants and needs (NIA, 2022).

The aim of this research was to provide a gathering space for older Canadians to share solutions about how to live a less isolated life, based on their own experiences. They shared insights and ideas about what a quality social life can look like at a key point in the COVID-19 pandemic, and thus while navigating open spaces after public health measures were lifted.

2. Methods

2.1 Setting

The overarching project where this research is placed aimed to learn from older people in any of Canada's 10 provinces about their overall health and mitigating pandemic-related anxiety (Low et al., 2024).

2.2 Sample

The overarching parent study where this research is embedded used a stratified sampling approach (Low et al., 2024). Participants were selected considering Statistics Canada's (2017) census distributions for age, gender identification, and education. In others' large-scale COVID-19 studies of older Canadians, age (MHRC, 2021), education (de Rubeis et al., 2022; Ooi et al., 2023), and identifying as a non-binary person (Grady & Stinchcombe, 2023; Moreno et al., 2023) have been significant determinants of mental health. Others have linked age and education with social isolation before (Donovan & Blazer, 2020; Freedman & Nicolle, 2020) and during (MHRC, 2021; Ooi et al., 2023) COVID-19.

All study variables in the overarching project were defined using the Census of Population dictionary (Statistics Canada, 2022). For example, gender pertains to a person's personal and social identity as a man, woman, or non-binary person, whereas sex at birth is based on a person's reproductive system and physical appearance. Census proportions for 2021, which would have also included gender identity, were not yet available to us.

2.3 Data Collection

The principal investigator and the team co-designed a 36-item e-survey for the overarching project with a survey research company having expertise in nation-wide health and social surveys (Low et al., 2024). This company made the selection of potential responders across all 10 Canadian provinces. Potential responders were first taken to an information letter identifying our research aim and their role, with assurance of complete anonymity and national support resource contact information.

Our e-survey contained an open-text response box permitting social isolation remedy messages of responders' own choosing, as opposed to clicking on predetermined responses. They could share as much or as little as they wished about the following: "With COVID-19 public health measures

lifting, based on your own experience, what would you suggest other older Canadians do to reduce social isolation?" The focus of this research is on e-survey responder responses to this question.

2.4 Data Analysis

As shown in Figure 1, our analysis was an inductive content analysis (Elo & Kyngäs, 2008; Kyngäs, 2020). All 1,189 messages were transcribed verbatim and read on multiple occasions. Open word-by-word textual coded permitted us to identify distinct meanings within messages. In keeping with our guiding framework (UN DESA & UNITAR, 2020), we paid equal empirical attention to words conveying a variety of wants and needs for company and companionship. Open codes were therefore grouped based on similarity and dissimilarity, abstracted as subcategories, and distinctly named. Older people's social wants and needs are not homogenous wants and needs (Ehni & Wahl, 2020; NIA, 2022).

Two qualitative research analysts immersed themselves in the data on two separate occasions to independently design coding trees. Each analyst grouped subcodes under higher-order codes or categories to lend meaning to abstracted subordinates. Consensus was established in a series of online meetings with the principal investigator, another qualitative research expert, and the two analysts, as to all orders of categories, and a universal coding tree and codebook for further analysis.

Natural outfalls in observed frequencies between and within higher-order codes or categories permitted a structure with a nominal hierarchy of subcodes or subcategories. We compared higher-order category frequencies across known Statistics Canada (2017) sampling strata (age, sex, and education) to further validate our observations. We did so using Chi-Square statistics and Phi as a measure of effect size (Kim, 2017). With social isolation having been more prevalent among older people in poorer health and with multiple chronic illnesses during COVID-19 (Iftene et al., 2022; Raina et al., 2022), we undertook exploratory self-rated health comparisons as well.

3. Results and discussion

3.1 Sample Characteristics

A total of 1,189 older Canadians responded to our open-ended e-survey question about social isolation. Their characteristics are shown in Table 1. In the 2021 Census, Statistics Canada (2022b) found that 1 in 700 persons aged 65 and older (0.14%) self-identified as transgender or non-binary. The observed proportion among messengers who were 60 to 64 years of age was marginally higher (.15%).

3.2 Identified themes

Content analysis of social isolation remedy messages yielded 4 principal remedies, under which 7 actionable categories and 10 subcategories of specific ways of behaving and thinking fell (Figure 1). We now outline the content of these overarching and subordinate categories, and in descending frequency as shown in Figure 2.

3.2.1 Cultivating Community

The most substantial proportion of messengers spoke of rebuilding or rekindling a sense of community using diverse forms of communication with loved ones and by expanding community networks. Another strategy, getting in gear, outside and routinely in open spaces, was encouraged more often than solitary mental occupations.

3.2.1.1 Hybrid Spaces

3.2.1.1.1 Rekindling what's in front of you

A good proportion of messengers recommended investing time and energy mainly into rekindling connections with people in your immediate social network. Samuel elaborated: *"I use Facebook to keep in touch with family and friends"* [Samuel, non-binary messenger, 70-74 years of age]. Joanne [Female

messenger, 60-64 years old] remarked, *“try to have phone check-ins daily with family and friends”*. John [non-binary messenger, 60-64 years old] suggested that others *“learn and use modern day technology such as phone calls, Zoom or Facetime to connect with people”*. As Aiden [Male messenger, 60-64 years old] averred, *“Try to keep in touch with family and friends even if only through the phone or social media. But in person as much as possible or reasonable given your circumstances”*. Friendships were of equal priority.

Jonathan suggested, *“stay in touch with family and friends whether in person or online”* [Male messenger, 70-74 years old]. Karlina and Luke advised, *“consider others, check in with them by telephone, have porch visits”* [Karlina, Female messenger, 75-79 years old], and *“I golf with my son and close friends that are fully vaccinated”* [Luke, Male messenger, 80-84 years old].

Others encouraged non-human companionship. Aster’s [non-binary messenger, 60-64 years old] requesting *“get[ting] a dog, cat or bird”* rang true for others: *“I kept in contact with friends by phone and had long chats. I had the company of two cats, and that helped”* [Beeja, Female messenger, 80-84 years old], and *“I myself go for several walks a day with my dog”* [Gilbert, Male messenger, 70-74 years old].

3.2.1.1.2 Rebuilding a newer broader community

Messengers were far less inclined to tell others to extend their reach by making new community connections through volunteer work, albeit seemingly informally. As two advice givers said, *“contact others even if you feel Ok . They may need your help”* [Somani, Female messenger, 85 years old and over], and *“contact others even if you do not need them, but the others may need your help”* [Susana, Female messenger, 85 years old and over]. Sarah and Tom remarked *“volunteer your time to help others”* [Sarah, Female messenger, 70-74 years old] and *“get involved with volunteer work”* [Tom, non-binary messenger, 60-65

years of age]. Very few messengers (n = 34; 2.71%) encouraged extending your reach to simply socialize or to *“get out to the coffee shops and meet other older individuals”* [Charlie, Male messenger, 65-69 years old] and *“join a social group with similar interests”* [Allan, Male messenger, 60-64 years old].

3.2.1.2 Getting in gear

3.2.1.2.1 Getting out and about

Making getting out and about into open spaces like gardens and parks, or enclosed gyms, clubs, and community centers routinely was key to living a less isolated life. Luke [Male messenger, 80-84 years old] insisted: *“Be active, walk, run, ride a bike, socialize and do not stay indoors”*. Robert [Male messenger, 65-69 years old] told others: *“Go out. Don’t buy groceries online”*. For Lartey [non-binary messenger, 65-69 years old] getting out meant *“join(ing) local groups at the local community centers”*. Angie [Female messenger, 70-74 years old] shared such sentiments: *“Get out of the house and look after (your) garden, watering and pruning plants and chatting with neighbors who are outside either gardening too or just enjoying the sunshine on their picnic chairs”*. Being idle would simply not do.

3.2.1.2.2 Getting mentally occupied

Getting in gear indoors pertained to solitary mental occupations. For example, Oliver [Male messenger, 65-69 years old] recommended, *“every morning ... do some yoga poses”*. Others instructed contemporaries to *“have positive experiences ready (a great movie, a great book, a great TV show)”* [Benjamin, Male messenger, 70-74 years old] and to *“take up a hobby or do baking or cooking”* [Lida, Female messenger, 60-64 years old]. Oliver and Wilson suggested, *“keep busy, active, and continual mental stimulus, card games online, reading, crosswords, sudoku”* [Oliver, Male messenger, 85 years old and above] and *“use the internet to read, keep in touch and entertain oneself”* [Wilson, Male messenger, 60-64 years old]. These savvy non-COVID escapes were seldom recommended, however.

3.2.2 Making Room for What's Good

A good number of the messages pertained to being one's own steward. Such stewardship entailed well-intentioned actions directed at the self and adopting a mindset wherein transitioning into open spaces without mandated public health measures can be another good thing to do.

3.2.2.1 Acting intentionally for one's own good

3.2.2.1.1 Self-care spaces

Messengers primarily spoke about finding time and investing energy into fulfilling your own wants and needs, or as Carmel asserted: *"Take care of yourself"* [Female messenger, 70-74 years old]. Self-care spaces were for mentally and emotionally recharging one's own batteries, and with or without other people. One could *"get together with your neighbors even if it is six feet apart; conversation and laughter can usually make life better"* [Shaski, Female messenger, 60-64 years old]. James recanted, *"go for a walk to the park so you will see other people, read a book to take your mind somewhere else..."* [Male messenger, 60-64 years old]. For Tammy [Female messenger, 65-69 years old], this meant: *"Make a plan to do different things in a day, time to read, time to exercise, time to have meals, time to play online games, time to shop and time to watch some TV and have a good night's sleep"*. Another advised *"be very kind to yourself and do not keep yourself cooped up inside if you can help it. Go for a walk, go for a drive; breathe in the fresh air, listen to beautiful music, watch programs that will make you laugh; see friends that listen and can joke around with you and laugh with you. Eat good food that you like the taste of and drink lots of water"* [Margrita, unknown gender, 60-64 years old].

3.2.2.1.2 Selecting social spaces

Messengers further emphasized being mindful of the social spaces that you gravitate to. As Ali puts it, *"very carefully select where you go, and whom you see. Also, be careful about whom you allow in your home"* [Male messenger, 65-69 years old]. Others used words such as *"be extra careful"*, *"be cautious"*, *"be safe"*. Like Julia, they encouraged inhabiting large, open spaces to avoid crowds: *"Get outdoors, walking, biking, beach combing"* [Julia, Female messenger, 60-64

years old]. Others recommended: *“Get out in nature”* [Barbara, Female messengers, 60-64 years old] and *“Go outside and enjoy creation”* [Bella, Female messenger, 65-69 years old]. Oliver [Male messenger, 60-64 years old] further averred: *“Just be careful and mindful of what is around you”*.

3.2.2.1.3 New learning spaces

For people like Joilana, it was important to create learning spaces to *“pursue new interests”* [Female messenger, 80-84 years old] such as through technology and hobbies. Salim also remarked, *“learn and use modern day technology such as phone calls, Zoom or Facetime”* [Male messenger, 80-84 years old]. Cassie and Ozeh said, *“take a free online learning course”* [Cassie, Female messenger, 65-69 years old] or *“(learn) something new from YouTube”* [Ozeh, Male messenger, 65-69 years old]. Ceci encouraged others to *“take up or revisit a hobby, play or learn to play a musical instrument”* [Female messenger, 70-74 years old]. New learning spaces were least recommended but were still a means to be good to yourself.

3.2.2.2 Thinking intentionally for one's own good

3.2.2.2.1 Living with acceptance

Good thinking, albeit about cultivating what's right in front of you, or seeking out new community connections with COVID-19 still lingering meant living with acceptance. Some said, *“[it is] most important is to live your life”* [Naina, Female messenger, 65-69 years old], *“accept things as they are”* [Takra, 60-64 years old], and *“live normally”* [Nichole, non-binary messenger 75-79 years old]. Likewise, Henry told others, *“there is no choice but to accept and enjoy”* [Male messenger, 65-69 years old]. Alexander [Male messenger, 70-74 years old] did not mince his words when telling others to soldier on: *“Do not live in fear or in a bubble”*.

3.2.2.1.2 Living with hope

Fewer messengers spoke of finding hope in what the COVID-19 pandemic brings to your doorstep. A messenger named Anderson [Female, 60-64 years old] echoed such sentiments: *“Keep hope in your heart. Sounds like many of us are feeling the same way”*. Living this way meant not ruminating over what lies ahead or your present circumstances, for that matter. As Danial [Male

messenger, 85 years old and older] puts it: *“Enjoy each day”*. Henry [Male messenger, 60-64 years old] conveyed, *“talk to someone close to you, and do not assume your condition is worse than anyone else’s”*. Others offered reassurances: *“Do not worry”* [James, Male messenger, 70-74 years old], and *“Most of all, this (Covid) will end, and life will slowly return to normal”* [Deanna, Female messenger, 65-69 years old].

3.2.2.1.3 Integrating spirituality

Very few messengers mentioned spiritual practices. These were broad practices that included connecting with others. Martin remarked: *“Have a good relationship with friends, family and God”* [Male messenger, 70-74 years old]. Sherry urged others, *“if you are religious pray or try to go to church”* [Female messenger, 80-84 years old]. Connecting with a higher power, scripture and with nature were other good headspaces to be in, away from COVID. Others craved more solitary pursuits: *“Learn to be happy on your own”* [Todd, Male messenger, 65-69 years old] and *“It is hard to cope but try meditation and relaxation!”* [Deanna, Female messenger, 75-79 years old]. Likewise, Hillary [Female messenger, 75-79 years old] said, *“read good books, pray, and read the Bible, ... listen to music you love, exercise and take walks, enjoy nature and keep yourself occupied”*.

3.2.3 Don’t let down your guard

Taking precautionary measures while transitioning into open spaces were also on messengers’ minds. They spoke of taking action on your own part and of keeping on top of public health measures.

3.2.3.1 You being on guard

Charlie’s [Male messenger, 60-64 years old] suggestion about *“go(ing) back to doing the things they did before COVID-19 but with a little more protection”* was a common sentiment. Alia suggested, *“start interacting with people at the same time being vigilant and cautious of your surroundings”* [Female messenger, 70-74 years old]. For others, this also meant *“disinfect(ing) your hands often”* [Josephine, Female messenger, 70-74 years old] and *“minimiz(ing) risks by keeping maximum distance and wear a mask in crowded areas”* [Natalie, Female messenger, 60-64 years old]. Navis [non-binary messenger, 70-74 years old] suggested, *“if you stuck, go out wear your mask*

stay away from large crowds just stay safe". Keema [Male messenger, 70-74 years old] implored: *"Make sure you're fully vaccinated and then socialize - Covid is going to be here for a long time"*. Hani [Female messenger, 75-79 years old] wanted others to *"take ...Vitamin D, Vitamin C, and Magnesium"*. There were also 49 messengers concurring with Erica's [Female messenger, 70-74 years old] sentiments that *"they (older Canadians) should stay at home to protect themselves"*. Much like cultivating community, decisive and purposive action was required.

3.2.3.2 Experts being on guard

Before our e-survey launched, messengers had been living through lockdowns and social distancing for a two-year period. Expert measures were certainly mentioned, but far less frequently than taking things into one's own equally prudent hands. Aiden [Male messenger, 75-79 years old] told others: *"Listen to what Health Canada says"*. Mike [Male messenger, 65-69 years old] spoke of *"maintaining safety protocol[s]"* while going outside in public. Bala and Doug were hardly remiss in reminding others: *"Make sure you have all your shots and continue to wear masks whenever you feel it necessary"* [Bala, Male messenger, 75-79 years old], and *"Continue to isolate. The danger is NOT past!"* [Doug, Male messenger, 65-69 years old].

3.2.4 Voiced out challenges

Some messengers shared personal hardships pertaining to broader social determinants of health perhaps making transitioning into open social spaces a difficult thing to do.

3.2.4.1 Shared hardships

Ormara [Female messenger, 70-74 years old] disclosed: *"I have decreased my social interaction because I am not allowed to drive due to health issues, and more"*. Priscilla [Female messenger, 60-64 years old] was missing a central figure in her life: *"My husband passed away in the midst of the pandemic; my time and thoughts were always elsewhere"*. Ozeh [Male messenger, 65-69 years old] was mindful of media headlines: *"Avoid daily media news as much as possible"*

given its focus on negative and divisive reporting and catch up on the news on the weekends”. Zain soberly spoke about money: “Life has become too expensive to go out and doing things like before. Not only is it still too dangerous to go out because covid inflation is preventing that as well. Life for most older people will never be the same...” [Male messenger, 75-79 years old]. Others, perhaps in hindsight, urged: “Do not be afraid to ask for help” [Kari, Female messenger, 75-79 years old] and “Let your doctor know if you are having problems in coping” [Dalia, Female messenger, 65-69 years old].

3.3 Between group comparisons

Messengers did not differently endorse all four primary remedies, regardless of their age ($X^2=4.115$, $df=6$, $p=.661$; $w = .064[.051-.146]$), sex ($X^2=2.562$, $df=3$, $p=.464$; $w = .051[.024-.123]$), and perceived health ($X^2=6.587$, $df=6$, $p=.361$; $w = .081[.055-.166]$). Gender identity ($X^2=5.162$, $df=6$, $p=.523$; $w = .072[.060-.149]$) seemed to have little bearing on their sentiments. Endorsement patterns were moderately associated with education ($X^2=14.338$, $df=6$, $p=.026$; $w = .12[.089-.196]$) and number of chronic illnesses ($X^2=15.528$, $df=6$, $p=.017$; $w = .124[.091-.196]$) (Kim, 2017). Not letting your guard down was least frequently mentioned by messengers without a degree, certificate, or diploma ($n = 27$, 19.3%) versus high school ($n = 53$, 37.9%) and post-secondary ($n = 60$, 42.9%) graduates. Messengers with no chronic illnesses ($n = 128$, 44.8%) most frequently instructed others to expect what is good in life (versus one [$n = 59$, 20.6%] or two or more [$n = 99$, 34.6%] chronic illnesses). These are illustrated below in Figures 3 and 4.

4. Discussion

4.1 Main findings and interpretation

COVID-19 has been called “the worst combined health and socioeconomic crisis in living memory” (Chirico, 2021, p. 154). Two years into the pandemic, older Canadians were transitioning

into open social spaces, and under the auspices of having lived most at risk for serious health harms (Government of Canada, 2024). For most of us, pandemics are hardly everyday life experiences. Our messengers were dancing a delicate dance in open spaces with a thriving viral companion.

Being socially isolated can be detrimental to anyone's physical and mental health. About 8 out of 10 older Canadians taking part in a Government of Canada (2022) survey about social distancing prioritized communicating with family and friends. Reliable neighbors and courageous spouses became everyday errand runners (Fiocco et al., 2021). Friends were mental wellness confidantes (MHRC, 2021). For like-minded others, friends were go-to emotional betterers and outlets for emotional release (Carstensen et al., 2020; Cavillini et al., 2021; Menze et al., 2022).

The loss of face-to-face contact with family and friends also made some older people more 'isolation-aware' (Derrer-Merk et al., 2022). Technology became an everyday lifeline to family and to friends, and peer support (von Humboldt et al., 2022a; Derrer-Merk et al., 2022; Karmann et al., 2023) and a necessity to be grateful for (Fiocco et al., 2021) have termed a necessity to be grateful for. Messengers favored a mix of virtual and in-person encounters, albeit with family friends and family, and with 4 legged others perhaps helping to fill physical distances in-between. The best social spaces were still hybrid spaces, and primarily for investing time and energy into staying connected and checking in with familiar others. Our use of remedy messaging in an e-survey permitted older Canadians to connect and check in with one another.

Before COVID-19, Canadians aged 59 and older typically spent about 180 hours each year formally volunteering and far more informally (Hahmann et al., 2020). Lockdowns and public health measures understandably curbed such philanthropy. Very early in the pandemic, a Volunteer Canada, Volunteer Management Professionals of Canada, and spinktank (2020) survey study revealed that 4 out of 10 inactive volunteers were age 65 and older. This demographic was experiencing dissatisfying declines in community belongingness (Capaldi & Dopko, 2021), and particularly if living alone and feeling isolated (Ooi et al., 2023).

Older Canadians felt accepted within their local communities (Gutman et al., 2021) and dismayed over their lack of opportunities to run errands for others in need, even if in their own neighborhoods (Fiocco et al. 2021). Messages about investing time and energy into building new community connections, largely for informal volunteering, paled in comparison to familiar-other connections. For older people without accessible family or friendship ties, volunteer work can be a source of new and meaningful age-mixed social connections (Volunteer Canada, 2020). Volunteers remain an increasingly scarce and precious community resource across Canada (Rodney, 2023). With technology gaining social momentum in older people's lives, e-volunteering (Hahmann et al., 2020; LaChance, 2020) could be an equally palatable means of bringing them together to reduce their own isolation and for those seeking company and companionship. Volunteerism can create social momentum, like a rolling snowball, binding us more tightly to the communities where our work takes place and perhaps extending our reach to unexpected others (Murthy, 2023). Older Canadians' post-COVID-19 social philanthropy work bodes further empirical attention.

During COVID-19, routine activities however mundane were important to older people. During lockdowns, everyday routines abruptly changed, and with social distancing, and for some, not for the better. Family conflicts (Gutman et al., 2021; Iftene et al., 2022) and foregone friendships (Moyser et al., 2020) are described. Perhaps this is why the physical presence of unknown others on routine walks (Karmann et al., 2023) and making a habit out of being active around other people (Derrer-Merk et al., 2022; Lesser & Nijenhuis, 2020) has been mentally beneficial. Messengers in this study favored routinely getting out into open spaces like gardens and parks, or enclosed gyms, clubs, and community centers to be around other people, at safe distance. Messengers also recommended mental occupations like reading, television, and playing card games online as seldom but savvy escapes having nothing to do with COVID-19. During lockdowns, gardening (Herron et al., 2022) and own-hobby work (Fiocco et al., 2021; Statistics Canada, 2022) provided an escape from pandemic-related stresses and strains. Messengers' calls for a mix of social and solitary strategies might signify putting some of their own lockdown-related learnings to work.

Messengers also convincingly demonstrated the necessity for being good to yourself by carving out for oneself time and space for tending to one's own needs. For some older people, taking "me-time" has hindered emotional negativity (Cavillini et al., 2021) and dissipated pandemic-related fears (von Humboldt et

al., 2022a). In this study, messengers urged others to create self-care spaces for mentally and emotionally recharging, through everyday outlets like driving, eating, reading, and by simply breathing. Into the first year of COVID-19, learning new things and putting new ideas into practice (Kornadt et al., 2021) has been important to some older people. Others yearned to find pleasure in once-pleasurable practices (ageUK, 2023). In this study, creating new learning spaces was the least recommended to be good to yourself. Far more messengers told contemporaries to tend to their own emotional and mental needs and to be mindful of the social spaces that they gravitate to. This might strengthen older people's mental fortitude and capacity to help others (Karmann et al., 2023).

During lockdowns, some older Canadians spoke of a need to not lose 'hope' for the future (Fiocco et al., 2021). For our messengers, living with hope instead largely pertained to living in the present, not ruminating about what lies ahead. These sentiments were echoed in urging others to accept what was going on around them and to return to living their lives. Akin to Luxembourgers' mapping out a post-lockdown social life (Kornadt et al., 2021), transitioning into open spaces required accepting and finding hope in what life brings to your doorstep.

Spiritual practices are health-enhancing connectedness practices, albeit through a higher power, caring for others, or taking in natural landscapes (Thauvoye et al., 2018). Spiritual practices can offer hope and bring comfort (Chirico, 2021; Durmuş & Öztürk, 2022), perhaps by dissuading our negative emotions (von Humboldt et al, 2022b) and a higher power strengthening our resolve (Koenig, 2020). When public health measures were in place, about 1 in 3 older Canadians engaged in some form of spiritual practice (Statistics Canada, 2022). Our messengers scarcely drew attention to spirituality. They also spoke as frequently about barriers to more fully socially transitioning, including tight budgets, inclement health, negative news headlines, and the loss of someone significant. Their encouraging others to not be shy about reaching out for help reflects an embodied commitment to own social recovery and to helping others gain momentum.

People can find solace in knowing they are not alone in their struggles (UN DESA & UNITAR, 2020). Sharing such hardships could help others weather and/or see the upside about their own (Mukhtar, 2020; Rossi et al., 2021). These were especially timely and important shares because older Canadians experienced seven waves of COVID-19 (Detsky & Bogoch, 2022). Shared hardships might also leave people on an uneven

spiritual keel, perhaps questioning and even altering spiritual practices that should keep the self and others in safer hands (McFadden, 2022; Upinieks, 2022). Very nearly one-quarter of messengers overtly called for some degree of guardedness around personal protective equipment, such as through masking and handwashing, and getting vaccines. Others among them strongly suggested not going out at all.

4.2 Public Health Implications

The results of this national study have implications for practitioners and program developers working with older adult populations. Public health messages about the spread and impact of COVID-19 have largely cast older people in a vulnerable light (Ehni & Wahl, 2020; Lagacé et al., 2022), seemingly without lessening others' age-negativity (Lytle et al., 2022; Werner & AboJabel, 2022). The Commission of Social Connections' (WHO, 2023) has called for communities to knock heads to identify practical solutions to post-COVID19 social isolation among older populations. Our findings draw attention to older Canadians' social isolation remedy messages based on their own experiences at a key time in the COVID-19 pandemic.

Good community initiatives bring everyday people together for a specific purpose, including bettering others' lot in life (UN DESA & UNITAR, 2020), such as through making research findings accessible to the public at large, including community advocacy groups (Phipps et al., 2016). Another digital innovation is the freely downloadable 'Name of e-booklet' developed in collaboration with a Research Chef and digital artisan (Low et al., 2023). This public health promotion resource discusses the many benefits of cooking beyond nutrition and strategies easing and heightening anxiety for older people across Canada. There are also a number of sage social isolation remedy messages to entice readers. In a recent study, cooking was linked with improved mood and sense of belonging and family (Garcia & Privott, 2023).

Good messaging emphasizes the importance of human connections and practical ways to find and to keep them (NIA, 2022), albeit through video chat with friends, keeping the company of

animals, or spending quiet time in a garden or a park. Beyond ‘Cooking up calm’, the messages shared in this study are another means of forging human connections, particularly for others mulling over or seeking more company and companionship. One might cultivate a community for oneself through a carefully crafted mix of virtual and in-person activities, primarily with known others and solitary activities. Erstwhile make room for what’s good by looking after yourself, and accept and be hopeful about transitioning into open spaces. They also told others to try not to think about what the future holds or let your guard down just yet. It will be interesting to see whether and how such careful or reserved optimism shifts post-COVID-19.

We hope that the practical and thoughtful strategies that older Canadians have shared resonate with researchers, practitioners, and program planners. Prior to our study, chronically ill people were a particularly socially isolated group (Iftene et al., 2022; Raina et al., 2022). They might find the everyday ways to be good to your body and mind helpful for eking out a more fulsome social life. About 1 in 4 older people are still living more isolated lives (WHO, 2024a).

4.3 Limitations and Strengths

Our study has some limitations. First, it is important to note that we are sharing remedy messages collected at one point in time from Canadians. We have since learned that social isolation is a growing post-pandemic global health concern (WHO, 2024a). Older people’s social wants and needs are also bound to vary (NIA, 2022). Moreover, as Murthy (2023) points out, we need to better understand how social connectedness transpires on older people’s own terms, and for that matter, their spiritual practices. Nonetheless the findings of this nation-wide study offer some direction for future research. Semi-structured interviews will help us explore shifts, if any, in older people’s propensities for virtual versus in-person encounters with friends and family, and their spiritual practices. We are equally curious about, for example, what self-selected social spaces constitute in the aftermath of COVID-19. Cross-cultural instruments like the WHOQOL-SPRB BREF (Skevington et al., 2013) would help us to further explore older peoples’ social and spiritual

occupations, and in relation to the perceived quality of their social lives. Strategies from contemporaries that are suited to a variety of social palates should also appeal to practitioners and program planners, perhaps as a conversation starter with more isolated older people.

5. Conclusion

This paper shares messages from 1,189 older Canadian people about how to combat social isolation at a pivotal turning point in the COVID-19 pandemic. At least in the specific context of this study, an e-survey was a furtive gathering space to share ideas and insights, albeit as self-affirmations or practical strategies for seeking more social connectedness. We hope that researchers, practitioners, program developers, and older people themselves find solace in knowing that the bearers of these messages similarly endorsed them, regardless of their age, sex, gender identity, and perceived health circumstances. Education- and illness-related differences in perspective could be ice-breakers for peer-to-peer social recovery support.

Conflict of Interest

None.

Ethical Statement

This project received ethical approval from the University of Alberta Human Research Ethics Board [Pro00118512_REN3]. The findings and the views reported in this paper, however, are those of the authors and should not be attributed to the University of Alberta or the RTOERO Foundation.

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CRediT authorship contribution statement

GL: Investigation, Conceptualization, Data Acquisition, Data Curation, Writing – original draft, Software; Review and Editing. **SvH:** Analytical Methodology, Conceptualization, Data Curation, Writing - original draft; Review and Editing. **GG:** Conceptualization, Data Curation, Review and Editing, Supervision. **ZG:** Survey Methodology; Data Acquisition, Review and Editing. **HA:** Project Administrator, Formal Analysis, Visualization. **AN:** Formal Analysis; Visualization; Reviewing and Editing. **DW:** Supervision, Review and Editing. **MV:** Formal Analysis.

Declaration of competing interests

Declaration of interests: None.

Data availability

The data is available upon reasonable request from the principal investigator.

Reference

- ageUK (2022). *Impact of COVID-19 on older people's mental and physical health: one year on*. https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/id204712_hi_covid-report-final.pdf
- Canadian Mental Health Association (2020). *Policy Brief: COVID-19 and mental health: Heading off an echo pandemic*. Canadian Mental Health Association. <https://cmha.ca/brochure/covid-19-and-mental-health-heading-off-an-echo-pandemic/>
- Canadian Coalition for Seniors' Mental Health (2024, January). *Social isolation and loneliness in older adults: A survey of Canadian older adults. Summary of results*. Canadian Coalition for Seniors' Mental Health. <https://ccsmh.ca/wp-content/uploads/2024/01/CCSMH-Social-Isolation-Survey-Results-Report-by-older-adults-ENGLISH-1.pdf>

- Capaldi, C. A., & Dopko, R. L. (2021). Positive mental health and perceived change in mental health among adults in Canada during the second wave of the COVID-19 pandemic. *Health Promotion and Chronic Disease Prevention in Canada*, 41(11), 359-377. <https://doi.org/10.24095/hpcdp.41.11.05>
- Carstensen, L. L., Shavit, Y. Z., & Barnes, J. T. (2020). Age advantages in emotional experience persist even under threat from the COVID-19 pandemic. *Psychological Science*, 31, 1374–1385. <https://doi.org/10.1177/0956797620967261>
- Cavallini, E., Rosi, A., van Vugt, F. T., Ceccato, I., Rapisarda, F., Vallarino, M., Ronchi, T., & Lecce, S. (2021). Closeness to friends explains age differences in positive emotional experience during the lockdown period of COVID-19 pandemic. *Aging & Clinical Experimental Research*, 33, 2623–2631. <https://doi.org/10.1007/s40520-021-01927-7>
- Cocuzzo, B., Wrench A., & O'Malley, C. (2022). Effects of COVID-19 on older adults: Physical, mental, emotional, social, and financial problems seen and unseen. *Cureus* 14(9), Article e29493. <https://www.cureus.com/articles/115491-effects-of-covid-19-on-older-adults-physical-mental-emotional-social-and-financial-problems-seen-and-unseen#!/>
- De Rubeis, V., Anderson, L. N., Khattar, J., de Groh, M., Jiang, Y., Oz, U. E., Basta, N. E., Kirkland, S., Wolfson, C., Griffith, L. E., Raina, P., & the Canadian Longitudinal Study on Aging Team (2022). Stressors and perceived consequences of the COVID-19 pandemic among older adults: A cross-sectional study using data from the Canadian Longitudinal Study on Aging. *CMAJ Open*, 10(3), 721-730. <https://www.cmajopen.ca/content/10/3/E721>
- Derrer-Merk, E., Ferson, S., Mannis, A., Bentall, R. P., & Bennett, K. M. (2022) Belongingness challenged: Exploring the impact on older persons during the COVID-19 pandemic. *PLOS ONE* 17(10), Article e0276561. <https://doi.org/10.1371/journal.pone.0276561>
- Detsky, A. S., Bogoch, I. I. (2022). COVID-19 in Canada - The fourth through seventh waves. *JAMA Health Forum*, 3(11), Article e224160. <https://doi.org/10.1001/jamahealthforum.2022.4160>
- Dong, L., & Yang, L. (2023). COVID-19 anxiety: The impact of older adults' transmission of negative information and online social networks. *Aging and Health Research*, 3 (2023), e100119. <https://doi.org/10.1016/j.ahr.2023.100119>
- Donovan, N. J., & Blazer, D. (2020). Social isolation and loneliness in older adults: Review and commentary of a national academies report. *American Journal of Geriatric Psychiatry*, 28(12), 1233–1244. <https://doi.org/10.1016/j.jagp.2020.08.005>
- Durmuş, M., & Öztürk, Z. (2022). The effect of COVID-19 outbreak on older adults' hopelessness, loneliness and spiritual well-being in Turkey. *Journal of Religion and Health*, 61(1), 851–865. <https://doi.org/10.1007/s10943-021-01494-1>
- Ehni, H. J., & Wahl, H. W. (2020). Six propositions against ageism in the COVID-19 pandemic. *Journal of Aging & Social Policy*, 32(4-5), 515–525. <https://doi.org/10.1080/08959420.2020.1770032>
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93–99. <https://doi.org/10.1016/j.afjem.2017.08.001>
- Fiocco, A. J., Gryspeerdt, C., & Franco, G. (2021). Stress and adjustment during the COVID-19 pandemic: A qualitative study on the lived experience of Canadian older persons. *International Journal of Environmental Research and Public Health*, 18, Article 12922. <https://doi.org/10.3390/ijerph182412922>
- Freedman, A., & Nicolle, J. (2020). Social isolation and loneliness: The new geriatric giants: Approach for primary care. *Canadian Family Physician*, 66(3), 176–182. <https://pubmed.ncbi.nlm.nih.gov/32165464/>
- Garcia, A., & Privott, C. (2023). Meal preparation and cooking group participation in Mental Health: A community transition. *Food Studies: An Interdisciplinary Journal*, 13(2), 85–101. <https://doi.org/10.18848/2160-1933/cgp/v13i02/85-101>
- Government of Canada (2024, February 13). Cases by age and gender: Figure 4. Age and gender distribution of COVID-19 cases in Canada as of March 9, 2024 (n=4,525,785). Government of Canada. <https://health-infobase.canada.ca/covid-19/current-situation.html#figure6-header>

- Government of Canada (2023 March 29). *Post-COVID condition (long COVID)*. Government of Canada. <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/symptoms/post-covid-19-condition.html>
- Government of Canada (2022, July 18). *What did Canadians do to maintain their mental health during the COVID-19 pandemic?* Government of Canada. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/what-did-canadians-do-for-mental-health-during-covid-19.html>
- Grady, A., Stinchcombe, A. (2023). The impact of COVID-19 on the mental health of older sexual minority Canadians in the CLSA. *BMC Geriatrics*, 23, 816-825. <https://doi.org/10.1186/s12877-023-04513-w>
- Gutman, G., de Vries, B., Beringer, R., Daudt, H., & Gill, P. (2021). COVID-19 experiences and Advance Care Planning (ACP) among older Canadians: Influence of age, gender and sexual orientation. SFU Gerontology Research Centre. <http://www.sfu.ca/lgbteol.html>
- Hahmann, T., du Plessis, V., & Fournier-Savard, P. (2020, 17 December). *Volunteering in Canada: Challenges and opportunities during the COVID-19 pandemic*. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00037-eng.htm>
- Harris, E. (2023). Most COVID-19 deaths worldwide were among older people. *JAMA Medical News*, 329(9), 704. <https://doi.org/10.1001/jama.2023.1554>
- Herron, R. V., Newall, N. E. G., Lawrence, B. C., Ramsey, D., Waddell, C. M., & Dauphinais, J. (2021). Conversations in times of isolation: Exploring rural-dwelling older persons' Experiences of isolation and loneliness during the COVID-19 pandemic in Manitoba, Canada. *International Journal of Environmental Research and Public Health*, 18(6), Article 3028. <https://doi.org/10.3390/ijerph18063028>
- Hobfoll, S., Watson, P., Bell, C. C., Bryant, R. A., Brymer, M. J., Friedman, M. J., Friedman, M., Gersons, B. P. R., de Jong, J. T. V. M., Layne, C. M., Maguen, S., Neria, Y., Norwood, A. E., Pynoos, R. S., Reissman, D., Ruzek, J. I., Shalev, A. Y., Solomon, Z., Stenberg, A. M., & Ursano, R. J. (2007). Five essential elements of immediate and mid-term mass trauma intervention: Empirical evidence. *Psychiatry*, 70(4), 283-315. <https://doi.org/10.1521/psyc.2007.70.4.283>
- Iftene, F., Milev, R., Farcas, A., Squires, S., Smirnova, D., & Fountoulakis, K. N. (2022) COVID-19 pandemic: The impact of COVID-19 on mental health and life habits in the Canadian population. *Frontiers in Psychiatry*, 13, Article e871119. <https://doi.org/10.3389/fpsyt.2022.871119>
- Karmann, J., Handlovsky, I., Lu, S., Moullec, G., Frohlich, K. L., & Ferlatte, O. (2023). Resilience among older persons during the COVID-19 pandemic: A photovoice study. *SSM - Qualitative Research in Health*, 3, Article 100256. <https://doi.org/10.1016/j.ssmqr.2023.100256>
- Kim H. Y. (2017). Statistical notes for clinical researchers: Chi-squared test and Fisher's exact test. *Restorative dentistry & endodontics*, 42(2), 152–155. <https://doi.org/10.5395/rde.2017.42.2.152>
- Koenig, H. G. (2020). Maintaining health and well-being by putting faith into action during the COVID-19 pandemic. *Journal of Religion & Health*, 59, 2205–2214. <https://doi.org/10.1007/s10943-020-01035-2>
- Kornadt, A., Albert, I., Hoffmann, M., Murdock, E., & Nell, J. (2021). Perceived ageism during the COVID-19-crisis is longitudinally related to subjective perceptions of aging. *Frontiers in Public Health*, 9, Article 679711. <https://doi.org/10.3389/fpubh.2021.679711>
- Kyngäs, H. (2020). Inductive content analysis. In H. Kyngäs, K. Mikkonen, M. Kääriäinen (Eds.), *The application of content analysis in nursing science research* (pp. 13-21). Springer. https://link.springer.com/chapter/10.1007/978-3-030-30199-6_2
- Lachance, E. L. (2020). COVID-19 and its impact on volunteering: Moving towards virtual volunteering. *Leisure Sciences* 43(1-2), 1-7. <https://doi.org/10.1080/01490400.2020.1773990>
- Lagacé, M., O'Sullivan, T., Dangoisse, P., Mac, M., Oostander, S., & Doucet, A. (2022). *A case study on ageism during the COVID-19 pandemic*. Prepared for Employment and Social Development Canada, Gatineau, Quebec. <https://publications.gc.ca/site/eng/9.910866/publication.html>
- Lesser, I. A., & Nijenhuis, C. P. (2020). The impact of COVID-19 on physical activity behavior and well-being of Canadians. *International Journal of Environmental and Behavioural Research*, 17, Article 3899. <https://www.mdpi.com/1660-4601/17/11/3899>
- Low, G., & Gutman, G. (2022). Mentally healthy living after social distancing: A study of

- older Canadians [Webinar]. RTOERO Foundation. <https://rtoero.ca/webinar-mentally-healthy-living-after-social-distancing-a-study-of-older-canadians/>
- Low, G., Gutman G., Gao, Z., França A., von Humboldt, S., Vitorino, L. M., Wilson D. M., & Allana, H. (2023). Cooking up calm Design your menu for mentally healthy living in the later years. Edmonton; RTEORO. Retrieved from https://rtoero.ca/wp-content/uploads/2023/09/cooking_up_calm_singles.pdf
- Low, G., Gutman G., Gao, Z., França A., von Humboldt, S., Vitorino, L. M., Wilson D. M., & Allana, H. (2024). Mentally healthy living after pandemic social distancing: A study of older Canadians reveals helpful anxiety reduction strategies. PubMed Central. <https://pubmed.ncbi.nlm.nih.gov/38499385/>
- Lytle, A., Apriceno, M. B., Macdonald, J., Monahan, C., & Levy, S. R. (2022). Pre-pandemic ageism toward older adults predicts behavioral intentions during the Covid-19 pandemic. *The Journals of Gerontology: Series B*, 77(4), e11–e15. <https://doi.org/10.1093/geronb/gbaa210>
- McFadden, S. H. (2022). Pandemic disruptions of older adults' meaningful connections: Linking spirituality and religion to suffering and resilience. *Religions*, 13(7), Article 622. <https://doi.org/10.3390/rel13070622>
- Menze, I., Mueller, P., Mueller, N. G., & Schmicker, M. (2022). Age-related cognitive effects of the COVID-19 pandemic restrictions and associated mental health changes in Germans. *Nature Portfolio Scientific Reports*, 12, Article 8172. <https://doi.org/10.1038/s41598-022-11283-9>
- Mental Health Research Canada (2021). *Mental health during COVID-19 outbreak: Poll #6 – Full report*. Health Canada. <https://www.mhrc.ca/national-poll-covid/findings-of-poll-6>
- Moreno, A., Belhouari, S., & Dussault, A. (2024). A systematic literature review of the impact of covid-19 on the health of LGBTQIA+ older adults: identification of risk and protective health factors and development of a model of health and disease. *Journal of Homosexuality*, 71(5), 1297–1331. <https://doi.org/10.1080/00918369.2023.2169851>
- Moyser, M. (2020). *Gender differences in mental health during the COVID-19 pandemic*. Ottawa: Statistics Canada. https://publications.gc.ca/collections/collection_2020/statcan/45-28/CS45-28-1-2020-44-eng.pdf
- Mukhtar, S. (2020). Mental health and psychosocial aspects of coronavirus outbreak in Pakistan: Psychological intervention for public mental health crisis. *Asian Journal of Psychiatry*, 51, Article 102069. <https://doi.org/10.1016/j.ajp.2020.102069>
- Murthy, V. H. (2023). *Our epidemic of loneliness and isolation. The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community*. <https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf>
- Müller, F., Röhr, S., Reininghaus, U., & Riedel-Heller, S. G. (2021). Social isolation and loneliness during COVID-19 lockdown: Associations with depressive symptoms in the German old-age population. *International Journal of Environmental Research and Public Health*, 18(7), Article 3615. <https://www.mdpi.com/1660-4601/18/7/3615>
- National Institute on Ageing (2022). Understanding social isolation and loneliness among older Canadians and how to address it. <https://cnpea.ca/images/socialisolationreport-final1.pdf>
- National Institute on Ageing & Telus Health (2020, October). *Pandemic perspectives on ageing in Canada in light of COVID-19: Findings from a National Institute on Ageing/TELUS Health national survey*. National Institute on Ageing. <https://static1.squarespace.com/static/5c2fa7b03917eed9b5a436d8/t/5f85fe24729f041f154f5668/1602616868871/PandemicPerspectives+oct13.pdf>
- Ooi, L. L., Liu, L., Roberts, K. C., Gariépy, G., & Capaldi, C. A. (2023). Social isolation, loneliness and positive mental health among older adults in Canada during the COVID-19 pandemic. *Health Promotion and Chronic Disease Prevention in Canada: Research, policy and practice*, 43(4), 171–181. <https://doi.org/10.24095/hpcdp.43.4.02>
- Phipps, D., Cummins, J., Pepler, D., Craig, W., & Cardinal, S. (2016). The co-produced pathway to impact describes knowledge mobilization processes. *Journal of Community Engagement and Scholarship*, 9(1). <https://doi.org/10.54656/gokh9495>

- Pongou, R., Ahinkorah, B. O., Maltais, S., Mabeu, M. C., Agarwal, A., & Yaya, S. (2022). Psychological distress during the COVID-19 pandemic in Canada. *PLOS ONE*, 17(11), Article e0277238. <https://doi.org/10.1371/journal.pone.0277238>
- Reppas-Rindlisbacher, C., Finlay, J. M., Mahar, A. L., Siddhpuria, S., Hallet, J., Rochon, P. A., & Kobayashi, L. C. (2021). Worries, attitudes, and mental health of older persons during the COVID-19 pandemic: Canadian and U.S. perspectives. *Journal of the American Geriatrics Society*, 69(5), 1147-1154. <https://doi.org/10.1111/jgs.17105>
- Robb, C. E., de Jager, C. A., Ahmadi-Abhari, S., Giannakopoulou, P., Udeh-Momoh, C., McKeand, J., Price, G., Car, J., Majeed, A., Ward, H., & Middleton, L. (2020). Associations of Social Isolation with Anxiety and Depression During the Early COVID-19 Pandemic: A Survey of Older persons in London, UK. *Frontiers in Psychiatry*, 11 (Article No. 591120). <https://doi.org/10.3389/fpsyt.2020.591120>
- Rodney, Y. (2023, March 14). Volunteerism. In crisis or at a crossroads? *The Philanthropist Journal: News and Analysis for the Non-Profit Sector*. https://volunteer.ca/vdemo/ResearchAndResources_DOCS/Vol%20Lens%202020%20Survey%20Results/VC_FallSurveyReport_2020_ENG_FINAL.pdf
- Röhr, S., Reininghaus, U., & Riedel-Heller, S. G. (2020). Mental wellbeing in the German old age population largely unaltered during COVID-19 lockdown: Results of a representative survey. *BMC geriatrics*, 20(1), 1-12. <https://bmccgeriatr.biomedcentral.com/articles/10.1186/s12877-020-01889-x#citeas>
- Rossi, R., Jannini, T. B., Socci, V., Pacitti, F., & Di Lorenzo, G. D. (2021). Stressful life events and resilience during the COVID-19 lockdown measures in Italy: Association with mental health outcomes and age. *Frontiers in Psychiatry*, 12, Article 635832. <https://doi.org/10.3389/fpsyt.2021.635832>
- Schlomann, A., Bünning, M., Hipp, L. & Wahl, H. (2022). Aging during COVID-19 in Germany: A longitudinal analysis of psychosocial adaptation and attitudes toward aging. *European Journal of Ageing*, 19(4), 1077-1086. <https://doi.org/10.1007/s10433-021-00655-1>
- Şentürk, S., Yıldırım Keskin, A., & Sarıayım, Ş. (2023). The relationship between the fear of COVID-19 in the elderly aged 65 years and over and their levels of adaptation to the “New Normal”: A cross-sectional study. *OMEGA - Journal of Death and Dying*, 87(2), 684-698. <https://doi.org/10.1177/00302228211054315>
- Sepúlveda-Loyola, W., Rodríguez-Sánchez, I., Pérez-Rodríguez, P., Ganz, F., Torralba, R., Oliveira, D. V., & Rodríguez, Mañaz, L. (2020). Impact of social isolation due to covid-19 on health in older people: Mmental and physical effects and recommendations. *Journal of Nutrition and Healthy Aging*, 24(9), 938-947. <https://doi.org/10.1007/s12603-020-1469-2>
- Skevington, S. M., Gunson, K. S., & O'Connell, K. A. (2013). Introducing the WHOQOL-SRPB BREF: developing a short-form instrument for assessing spiritual, religious and personal beliefs within quality of life. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, 22(5), 1073–1083. <https://doi.org/10.1007/s11136-012-0237-0>
- Smith, M. L., Steinman, L. E., & Casey, E. A. (2020). Combating social isolation among older persons in a time of physical distancing: The COVID-19 social connectivity paradox. *Frontiers in Public Health*, 8, Article 403. <https://doi.org/10.3389/fpubh.2020.00403>
- Stangl, A. L., Earnshaw, V. A., Logie, C. H., van Brakel, W., Simbayi, L. C., & Barré, I. (2019). The health stigma and discrimination framework: a global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Medicine*, 17, Article 31. <https://doi.org/10.1186/s12916-019-1271-3>
- Statistics Canada (2017, November 15). 2016 census topic: Population and dwelling counts. Statistics Canada. <https://www12.statcan.gc.ca/census-recensement/2016/rt-td/population-eng.cfm>
- Statistics Canada (2021a, March 18). Survey on COVID-19 and mental health, September to December 2020. Statistics Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/210318/dq210318a-eng.htm>
- Statistics Canada (2022a). Dictionary, Census of Population 2021. <https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/index-eng.cfm>

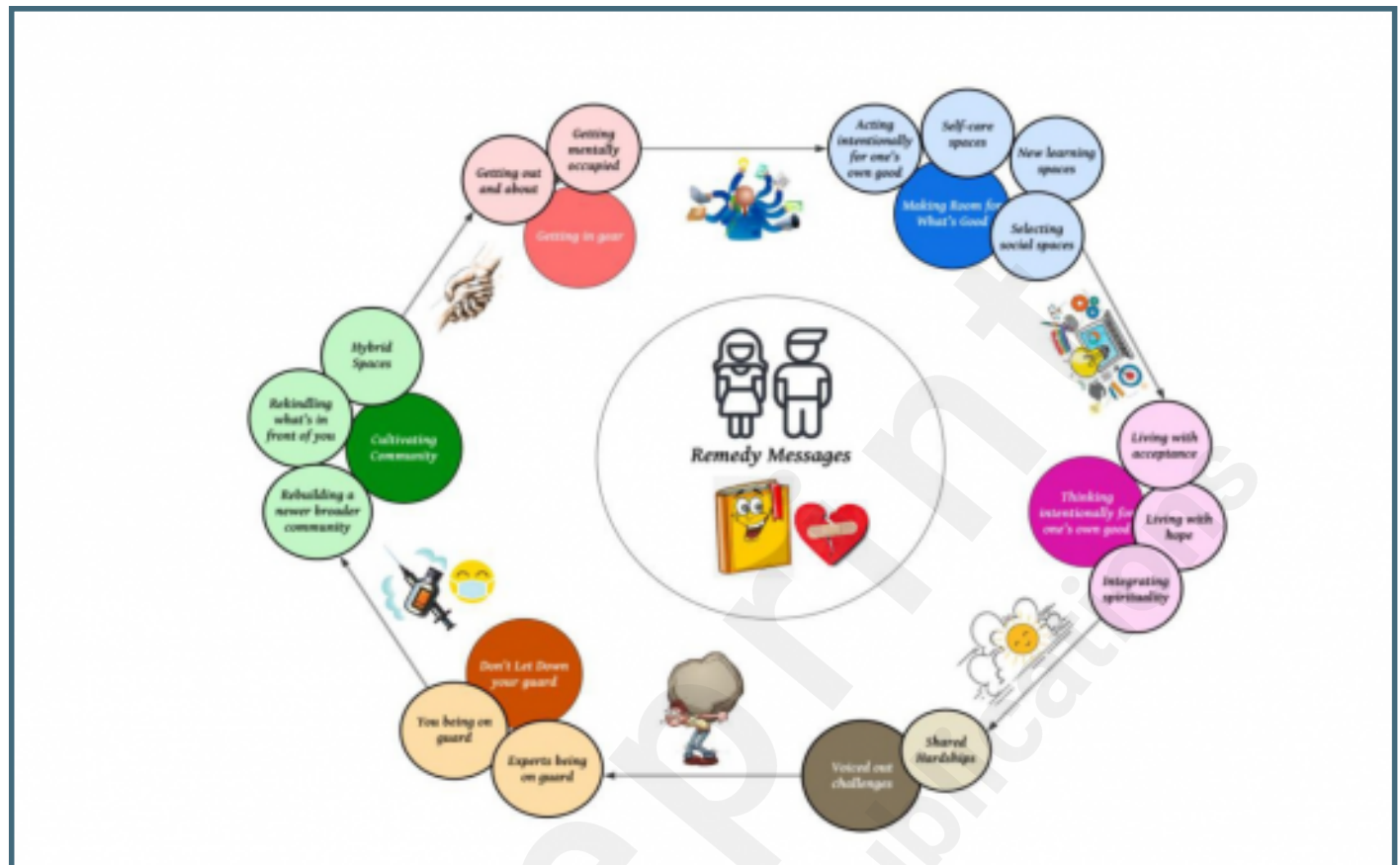
- Statistics Canada (2022b). *Canada is the first country to provide census data on transgender and non-binary people*. Statistics Canada. <https://www150.statcan.gc.ca/n1/daily-quotidien/220427/dq220427b-eng.htm>
- Su, Y., Rao, W., Li, M., Caron, G., D'Arcy, C., & Meng, X. (2023). Prevalence of loneliness and social isolation among older persons during the COVID-19 pandemic: A systematic review and meta-analysis. *International Psychogeriatrics*, 35(5), 229-241. <https://doi.org/10.1017/S1041610222000199>
- Thauvoye, E., Vanhooren, S., Vandenhoek, A., & Dezutter, J. (2018). Spirituality and well-being in old age: Exploring the dimensions of spirituality in relation to late-life functioning. *Journal of Religion & Health*, 57, 2167–2181. <https://doi.org/10.1007/s10943-017-0515-9>
- Tsutsumimoto, K., Doi, T., Makizako, H., Hotta, R., Nakakubo, S., Kim, M., Kurita, S., Suzuki, T., & Shimada, H. (2018). Social frailty has a stronger impact on the onset of depressive symptoms than physical frailty or cognitive impairment: A 4-year follow-up longitudinal cohort study. *Journal of the American Medical Directors Association*, 19(6), 504–510. <https://doi.org/10.1016/j.jamda.2018.02.008>
- United Nations Department of Economic and Social Affairs, & United Nations Institute for Training and Research (2020). *Stakeholder engagement*. <https://sdgs.un.org/stakeholders>
- Upenieks, L. (2022). Religious/spiritual struggles and well-being during the COVID-19 pandemic: Does “talking religion” help or hurt? *Review of Religious Research*, 64(2), 249–278. <https://doi.org/10.1007/s13644-022-00487-0>
- Volunteer Canada, Volunteer Management Professionals of Canada, & spinktank (2020, December). The volunteering lens of COVID-19: Fall 2020 Survey. Impacts of COVID-19 on volunteer engagement. <https://volunteer.ca/index.php?MenuItemID=433>
- von Humboldt, S., Low, G., & Leal, I. (2022a). Health service accessibility, mental health and changes in behavior during the Covid-19 pandemic: A qualitative study with older persons. *International Journal of Environmental Research and Public Health*, 19, Article 4277. <https://www.mdpi.com/1660-4601/19/7/4277/pdf>
- von Humboldt, S., Mendoza-Ruvalcaba, N., Arias-Merino, E., Ribeiro-Gonçalves, J. A., Cabras, E., Low, G., & Leal, I. P. (2022b). The upside of negative emotions: How do older persons from different cultures challenge their self-growth during the COVID-19 pandemic? *Frontiers in Psychology*, 13, Article e648078. <https://doi.org/10.3389/fpsyg.2022.648078>
- Wellness Together Canada (2023). *Help is a click away*. <https://www.wellnesstogether.ca/en-ca/>
- Werner, P., & AboJabel, H. (2022). The conceptual and methodological characteristics of ageism during COVID-19: A scoping review of empirical studies. *The Gerontologist*, 118, 1-10. <https://doi.org/10.1093/geront/gnac118>
- World Health Organization (2020a, March 18). *Mental health and psychosocial considerations during COVID-19*. Accessed June 30, 2020 <https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf>
- World Health Organization (2020b, April 7-8). *An ad hoc WHO technical consultation managing the COVID-19 infodemic: Call for action*. <https://www.who.int/publications/i/item/9789240010314>
- World Health Organization (2022a, January 19). *Coronavirus disease (COVID-19) advice for public: MythBusters*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>
- World Health Organization (2022b). *World mental health report: Transforming mental health for all*. <https://apps.who.int/iris/handle/10665/356119>
- World Health Organization (2023, November 15). *WHO launches commission to foster social connection*. <https://www.who.int/news/item/15-11-2023-who-launches-commission-to-foster-social-connection>
- World Health Organization (2024a). *Statement on the fifteenth meeting of the IHR (2005) Emergency Committee on the COVID-19 pandemic*. [https://www.who.int/news/item/05-05-2023-statement-on-the-fifteenth-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-coronavirus-disease-\(covid-19\)-pandemic](https://www.who.int/news/item/05-05-2023-statement-on-the-fifteenth-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-coronavirus-disease-(covid-19)-pandemic)
- World Health Organization (2024b). *Social isolation and loneliness*. <https://www.who.int/teams/social-determinants-of-health/demographic-change-and-healthy-ageing/social-isolation-and-loneliness>



Supplementary Files

Figures

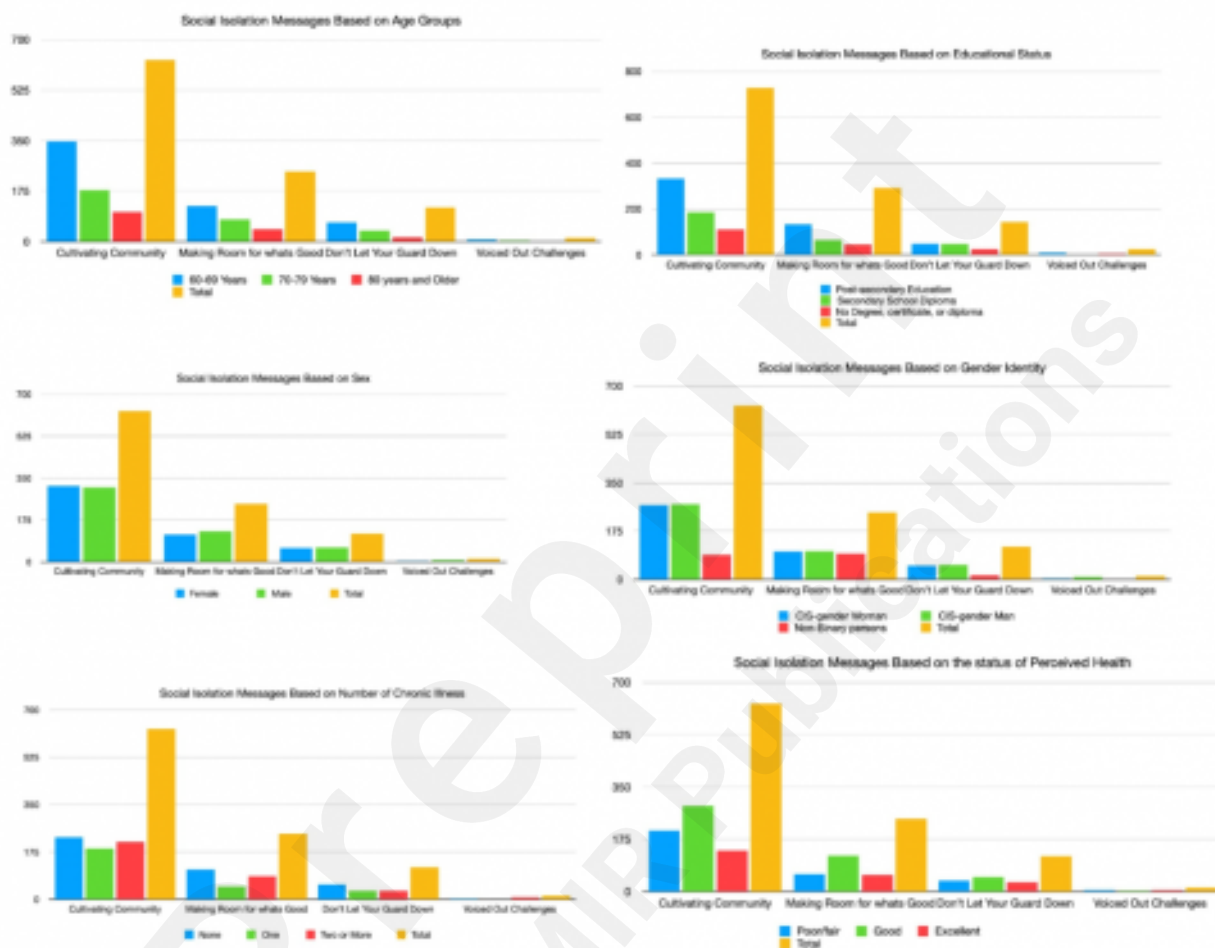
Frequency of endorsing of four social isolation remedies, based on age, education, sex, gender identity, perceived health, and number of chronic illnesses.



Frequency of messengers' (N = 1,189) endorsing categories of remedy.



Frequency of endorsing of four social isolation remedies, based on age, education, sex, gender identity, perceived health, and number of chronic illnesses.



Between-group comparisons across four overarching social isolation remedy message categories, based on age, sex, gender identity, education, perceived health, and number of chronic illnesses.

