"I have an image of myself, it's strong and resilient": Assets Supporting Resilience of Older Adults and Their Communities during the COVID-19 Pandemic

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Abstract

Despite societal perceptions of older adults as vulnerable, literature on resilience suggests that exposure to adversity and resources gained with life experience contribute to adaptation. One way to explore the nature of resilience is to document assets supporting adaptation. Interviews were conducted with older adults living in Canada at two time points during the COVID-19 pandemic, September 2020–May 2021 (T1) and January–August 2022 (T2). Reflexive thematic analysis was completed to report on what older adults identified as assets and how they understood the value of those assets for resilience. Participants indicated that the potential value of their contributions went largely untapped at the level of the community but supported individual and household adaptation. In line with calls for an all-of-society approach to reduce disaster risk and support resilience, creating a culture of inclusivity that recognizes the potential contributions of older adults should be paired with opportunities for action.

Résumé

Malgré les perceptions sociétales selon lesquelles les personnes âgées sont vulnérables, la littérature sur la résilience suggère que l'exposition à l'adversité et les ressources acquises grâce à l'expérience de vie contribuent à l'adaptation. Une façon d'explorer la nature de la résilience consiste à documenter les atouts qui soutiennent l'adaptation. Des entrevues ont été menées avec de personnes âgées vivant au Canada à deux moments pendant la pandémie de COVID-19, de septembre 2020 à mai 2021 (T1) et de janvier à août 2022 (T2). Une analyse thématique réflexive a été réalisée pour rendre compte de ce que les personnes âgées définissaient comme des atouts et de leur compréhension de la valeur de ces atouts dans la résilience. Les participants ont indiqué que la valeur potentielle de leurs contributions était largement inexploitée à l'échelle de la collectivité, mais qu'ils soutenaient l'adaptation au niveau des particuliers et des ménages. Conformément aux appels en faveur d'une approche pansociétale visant à réduire les risques de catastrophe et à soutenir la résilience, il est essentiel de créer une culture d'inclusion qui reconnaît les atouts et les contributions potentielles des personnes âgées et les associe à des opportunités d'action.

Introduction and background

Disasters continue to increase in frequency and severity around the world and are a threat to population health globally. The COVID-19 pandemic and the continued threat of natural disasters stemming from climate change have led to renewed calls to reduce disaster risk and support the resilience of individuals, communities, and countries (United Nations Office for Disaster Risk Reduction [UNDRR], 2021). Disaster risk reduction (DRR) encompasses strategies to identify, evaluate, and reduce factors contributing to disaster risk and to prevent new risks from emerging (UNDRR, 2015). There is particular emphasis on strategies to support the resilience of high-risk populations, those who are at disproportionately higher risk of experiencing disaster impacts because of social vulnerabilities (UNDRR, 2015) .

Older adults are typically considered high risk when disasters occur because of comorbidities that often coincide with age-related decline (World Health Organization [WHO], 2020).

Furthermore, ageist stereotypes that persist in Western colonial societies can affect risk perceptions of older adults, as exemplified during the COVID-19 pandemic in public and political discourses (Ayalon et al., 2021; Fraser et al., 2020; Lagacé et al., 2024). Despite societal perceptions of older adults as homogenously vulnerable, literature on resilience suggests that exposure to adversity and the capacities and resources people gain with life experience contribute to the ability to adapt and be resilient (Cosco et al., 2017).

Definitions of resilience vary across disciplines. From a systems perspective, resilience is focused on how people adapt within their social, political, cultural, and economic contexts to learn, transform, and sustain well-being in response to change (Folke, 2016). Strategies that aim to foster the resilience of people and communities by focusing not only on needs but also on existing strengths, gifts, and capacities are referred to as asset-based approaches (McKnight & Kretzmann, 1996). Identification of community assets is an increasingly popular strategy used in population and public health to address complex issues, including in the field of public health emergency preparedness (Morgan & Ziglio, 2007; Rippon & South, 2017; Khan et al., 2018). Using asset-based approaches, there is the potential to reduce inequities by strengthening social capital and local action and by building trust and transparency between citizens and decision makers (Cassetti et al., 2020; Khan et al., 2018).

Programs and policies that highlight and capitalize on existing strengths can reduce disaster risk by empowering people to take action in preparation for and in response to disasters (O'Sullivan et al., 2014). DRR practices and asset-based approaches are complementary; the inclusive, multidisciplinary strategies emphasized in asset-based approaches pair well with the all-of-society, multi-sectoral strategies recommended in *The Sendai Framework* (O'Sullivan & Phillips, 2019; UNDRR, 2015). Both DRR practices and asset-based approaches emphasize the importance of interdisciplinary and multi-sectoral collaboration, acknowledging that there is no one-size-fits-all solution to addressing disaster risk.

A person's or community's understanding of their capacities and strengths, the value they bring, and the ability, motivation, and self-efficacy to action them is referred to as asset literacy (O'Sullivan et al., 2014, 2018). The Conceptual Model of Asset Literacy for Household Resilience (O'Sullivan et al., 2018) provides a structure for understanding asset literacy as a cyclical and dynamic process. The first step in this model (O'Sullivan et al., 2018) is to develop an awareness of existing capacities, strengths, and resources; we may not refer to these as 'assets' colloquially, but these are the things we rely on to cope and adapt. Assets are present across personal, social, physical, and energy domains and at various socio-ecological levels (Morgan & Ziglio, 2007; O'Sullivan et al., 2018). The second step is to recognize the value and utility of these assets. This process contributes to feelings of empowerment; the realization that one *can* impact their situation. In the third step, people begin to understand *how* to use their assets and look for potential opportunities to use them. The fourth step occurs when people use their assets. These four steps: awareness, value recognition, applicability, and action – provide a structure for understanding how people interact with their environment to adapt.

In the final step, awareness transforms into action through feelings of empowerment and self-efficacy; the support of community members is essential at this stage. A society where ageist stereotypes of, and attitudes towards older adults persist can led to marginalization and exclusion, which has been observed in humanitarian settings through lack of inclusion impacting resource allocation (WHO, 2008). A supportive community can facilitate

movement from awareness to action and, in the context of disasters, encourage the engagement of citizens with diverse attributes to support DRR practices (O'Sullivan et al., 2018).

A tool that can support this process is asset mapping, which illuminates existing strengths within a community. Asset mapping is a way of thinking about supportive relationships within communities through a systems lens (McKnight, 2010). In the field of DRR, discussions around disaster planning and preparedness that focus on assets can support discourse related to both strengths and needs rather than needs alone (O'Sullivan et al., 2014); thus, helping to find solutions rather than focussing only on problems that need to be solved. This dialogue can enable change and potentially result in more effective and equitable policies and programs (McKnight & Kretzmann, 1996) where everyone has a chance to contribute.

With the continued threat of disasters and emergencies coupled with the rise of population aging, using asset-based approaches is a timely and essential investment to reduce disaster risk and promote resilience. During the COVID-19 pandemic, particularly in the earlier waves, media and government discourses emphasized vulnerabilities and losses of older adults in the context of high mortality and loneliness stemming from isolation (Lagacé et al., 2024). However, literature exploring the experiences of older adults has documented negative, positive, and mixed experiences, and factors contributing to both stress and joy during this exceptional time (Whitehead & Torossian, 2021; Xie et al., 2021). In this qualitative study, we were less concerned with exploring the experiences of older adults during the pandemic as we were in understanding how older adults conceptualized their strengths through their experiences during the pandemic. The purpose of this study was to examine the assets and the asset literacy of older adults, contextualized as a high-risk population during the COVID-19 pandemic in Canada. Specifically, what older adults identified as assets, how they framed the value of these assets, and how they were able to use their assets to support adaptation and resilience are highlighted.

Methods

This study is part of a more extensive research program exploring older adults' experiences of resilience and vulnerability during the COVID-19 pandemic. Ethics approval was received to use data from this research program to inform a secondary analysis on April 21, 2022 from the University of Ottawa Research Ethics Review Board (H-04-22-7965).

Data were generated with community-dwelling older adults recruited across five Canadian provinces from coast to coast at two time points (T1 and T2) during the COVID-19 pandemic. Data generation for T1 occurred from September 2020 to May 2021, after which the same sample of participants was contacted and invited to a second follow-up interview. Data generation for T2 occurred from January 2022 to August 2022. Approximately 9 months to 1 year lapsed between T1 and T2 to capture any changing experiences through the pandemic evolution, for example, with fluctuating restrictions and the availability of a COVID-19 vaccine.

Older adults were recruited using purposive and snowball sampling techniques (Miles & Huberman, 1994). Potential participants were eligible if they were 60 or older at the time of their first interview (T1) and could communicate in either of the official languages of Canada (French or English). Bilingual interview recruitment posters were circulated via email throughout the

personal and professional networks of the research team to potential participants. Interested participants contacted the principal investigator (T.O.) via telephone or email to schedule an interview.

Semi-structured interviews were conducted via telephone and were 30–60 minutes long. Multiple authors conducted interviews to meet participant language preferences, English: (T.O., S.O.); French: (M.L., L.B-H, and C.J.). Participants provided written or verbal informed consent at both interview participation and audio-recording time points. Interviewers took field notes to reflect on data generation and interpretation throughout the research process and discussed these observations with the team, which in turn, helped identify further avenues of inquiry.

The interview guide was developed to gain a holistic understanding of the impacts of the pandemic and subsequent restrictions on participants. The first interview (T1) consisted of open-ended questions centered around eight topic areas: social activities, work activities, social contacts and connectedness, well-being, vitality and health, and perceptions of COVID-19 communications/media. The following are some examples of questions posed to participants: Tell me about your experience in the last year of the pandemic. Can you tell me what is important to you in your life? Which things are important for you to have a happy/satisfied life? What makes (would make) you a happy/satisfied person? Has this changed during the pandemic? These questions help to elucidate the assets that people possess how their assets helped them to cope.

The T2 interview guide included the same topic areas to allow follow-up of participant experiences during the pandemic; two additional sections were added to draw on relevant pandemic changes, namely vaccination and recovery. The following are some examples of questions posed to participants: The last time we spoke, you mentioned that you were doing certain activities. Have these activities changed at all? Have you received the COVID-19 vaccine? Has anything changed in terms of how you view the pandemic since you received your vaccine? What do you hope or expect will happen in the future? What needs to change? Probes and prompts were used during the interview process to clarify participant experiences and to revise the interview guide for clarity.

Audio recordings were transcribed verbatim and checked for quality. To analyze the data, we used the six phases of Reflexive Thematic Analysis described by Braun and Clarke (2006, 2022). For Phases 1 and 2, familiarization and coding, data from T1 and T2 were treated separately. Both data sets were coded inductively (identifying patterns) and deductively by socio-ecological level, individual, household, and community. A sample of five transcripts was open-coded by three authors (S.O., T.O., C. J.) together, for each data set. The three authors engaged in the open coding process and reflected on and grouped codes in an iterative process to develop a codebook. Data relating to each code were presented to the larger research team at meetings for further reflection and refinement. Two authors (S.O. and C.J.) continued to code the data independently using NVivo 12 software (Lumivero, 2017). The final coding reports for each data set contained data relevant to participant assets and sub-codes for assets at individual, household, and community levels, which were analyzed for the purposes of this study.

For Phases 3 and 4, generating and developing themes, the first author (S.O.) combined data from both data sets to identify initial themes. Classes of assets described by O'Sullivan et al. (2018) influenced theme development; these classes of assets include personal characteristics, energy factors, physical factors, and social factors and were created by combining asset categories from Moser and Satterthwaite (2008) and Hobfoll (2001). The categories are not

mutually exclusive but are a way to organize and understand assets that span socio-ecological levels (individual, household, community). In Phase 5, initial themes were discussed and refined with feedback from the larger research team to develop consensus. Resulting themes were written up by the first author (Phase 6) and provide an understanding of what and how older adults conceptualize their assets through narratives about their experiences during the pandemic.

In this study, reflexivity was practiced throughout data generation and analysis through memoing and team discussions. Having a large research team with diverse backgrounds and experiences was a strength of this study, and consensus building within the team contributes to trustworthiness of the findings. Our team consisted of an older adult community member, a private industry expert with experience advocating for older adults, and academic professors and doctoral candidates with experience conducting interdisciplinary research related to older adults.

The final sample includes 67 participants at T1 and 37 participants at T2. Thirty participants were unable or chose not to complete a second interview. Recruitment and retention of older adults in research studies is known to be challenging (Mody et al., 2008) and the COVID-19 pandemic likely compounded these issues. Characteristics of the sample are shown in Table 1. Participants were overwhelmingly white, heterosexual females between 60 and 80 years of age. The majority did not report any disabilities, lived with others, and were from the province of Ontario. Interviews were mainly conducted in English (59 participants in T1 and 36 in T2); importantly interviews were

Table 1. Characteristics of the study sample at T1 (September 2020–May 2021) and T2 (January 2022–August 2022)

Characteristic*	Number of participants	
	T1	T2
Total	67	37
Gender		
Female	47	26
Male	20	11
Other	0	0
Age		
60–69	22	13
70–79	36	21
80–89	8	2
90+	1	1
Race/ethnicity		
White	57	33
Black	3	1
Asian	2	1
Brown	1	1
Not disclosed	4	1
Sexual orientation		
Heterosexual	62	36
2SLGBTQ2I+	3	1
Not disclosed	2	0

(Continued)

Table 1. *Continued*

Characteristic*	Number of participants	
	T1	T2
Disability		
No	57	32
Yes	6	3
Not disclosed	4	2
Living situation		
Living with others	46	28
Lives alone	18	9
Not disclosed	3	0
By Province		
Ontario	50	31
Alberta	6	4
British Columbia	3	1
Quebec	1	0
Nova Scotia	1	1
Not disclosed	6	0
Language of interview		
English	59	36
French	8	1

Note:
*Participant self-identified characteristics were completed through open-ended questions, not pre-defined categories.

analyzed in the language they were conducted in (i.e., they were not all translated to one language for analysis).

Results

In the following section, the assets older adults identified and the framing of those assets are described as themes. Next, the influence of the COVID-19 pandemic on participants' ability to use these assets in their communities is highlighted. This section concludes with an asset map to visually display assets identified in this study. The asset map provides a starting point for future research exploring how assets are framed in relevant DRR policies and practices.

While data were collected across two time points during the pandemic, no differences were observed in participant experiences of adaptation and resilience warranting an analysis across time. The following findings combine the experiences of participants at T1 and T2.

Personal characteristics attributed to coping with uncertainty

Personal characteristics can act as a means for achieving other resources to support adaptation (Hobfoll, 2001). The participants identified three personal characteristics as assets: subjective good health, a strong self-concept, and a positive attitude or outlook. Participants discussed their subjective health in terms of both physical and mental well-being. *"Resilience for me is mental and physical […] I mean because resilience needs a healthy body and a healthy mind, I think"* (P34-T1). Perceived health was connected to self-efficacy and participants' perceptions of their ability to cope and adapt.

I'm as physically active as I can be, so that helps as well. I'm healthy. I have an image of myself, it's strong and resilient […] I can tell myself I can get through this. I can adapt. It's a learning experience. (P19-T1)

During the interviews, participants referred to different coping strategies they used to manage the impacts of the pandemic. However, how they framed coping was similar and was structured through participants' understanding of their self-concept. The structure typically followed the pattern: I am X type of person, so I need Y, and here is how I met that need during the pandemic. For example, *"I'm a glass half full kind of person, so if I ever do get down – which I don't too often – I might just call a friend or call my daughter"* (P45-T1).

Associated with self-concept were participants' beliefs about how their personality traits contributed to coping. Although we did not ask them to self-label, participants spontaneously framed their decision-making process using personality traits like introversion and extraversion. For example, participants who self-identified as introverts often mentioned that they were not as socially impacted because they preferred lower social stimulation than extroverts.

I think that I'm a bit of an introvert, so I don't mind being at home. I like seeing my friends, I like having something to do, I like having something on the calendar […] But I'm OK not going out in the evening. (P47-T1)

Participants who self-identified as extroverts highlighted strategies to meet their social needs when restrictions limited in-person contact with others.

Because I'm an extrovert I usually go out to seek my entertainment. So now I don't go out as much. I'm more depending on nature to entertain me, for example, this morning when I did my walk, I was looking on what plants are coming up, what's new on the property. And usually, I wouldn't really notice, I just walk for my exercise, that's it. But now I'm observing nature more. (P57-T1)

Having a positive attitude or outlook was described as an asset during the pandemic, and the participants tended to relate this to a sense of control. Participants viewed the state of the pandemic and evolving public health restrictions as outside of their personal level of control. They expressed how they believed focusing on these factors was not helpful for coping, *"I learn to adjust and no use worrying over things that you cannot change"* (P61-T1).

Participants described strategies such as creating routines with structured activities to create a sense of control at an individual level. This strategy helped to create meaning and purpose and contributed to their positive outlook. Creating a sense of control at an individual level helped participants to cope with a perceived lack of control at a broader societal level.

[Playing bridge] is just providing a structure or core to my activities. I know that I need to have everything fired up online, the computer, the encryption system running usually by about quarter after 12 for the online start and the same in the evening. So, it provides a structure that wouldn't otherwise be there and that is a saviour. (P43-T1)

Resources accrued over a lifetime and an awareness of time itself contributes to resilience

Energy assets act as building blocks to help us acquire other valuable resources. This study identified three energy assets: 1)

mobilizing knowledge, skills, and lessons learned from life experiences, 2) financial security, and 3) time.

Mobilizing the knowledge, skills, and lessons learned from life experiences is an overarching asset identified in this study. Participants often framed their ability to adapt via anecdotes about their life experiences. For example, one participant highlighted how their job training helped them to understand the statistics presented in the media, which then influenced their perception of COVID-19. "*First of all, I'm not afraid of COVID, I understand statistics, I'm an engineer by training as I mentioned. I look at the statistics and put them into context*" (P41-T1).

Another participant relayed that the knowledge they gained from working in a hospital during the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 helped them to adapt when COVID-19 emerged. "*I think only because I went through SARS working at the hospital. So, I knew how to keep safe and just having that little bit of knowledge I think helps*" (P45-T1).

Participants emphasized the lessons learned from adverse life experiences as contributors to resilience. Adverse life events, like war, chronic illness, and personal traumas, were framed as comparators to the COVID-19 pandemic. Experience gained through these adverse events helped participants to adapt and be resilient.

> *I've adapted, I mean I think because I have been through other things in my life that were hard, like having cancer a couple of times, I was a single mother, I've been in the advocacy movement, I've been divorced, I've had ups and downs with my ex. So, you know you go through things in your life but you learn that, as difficult as it is, you get through them. You build up those resiliency muscles, you don't just lose the ability to respond and to do well and to find peace. (P18-T2)*

Money is a crucial resource for acquiring essential items to meet basic human needs and is a foundational support for other assets, like housing. Participants who felt financially secure during the pandemic reported that meeting their basic needs allowed them to focus on fulfilling other needs, such as social ones.

> *I think I'm lucky that myself and my loved ones are all healthy and happy number one…It's all going so well for us, and that's why I said it really hasn't had a huge impact on us. It's had an impact in terms of social interaction, but that's about all because we're retired, financially it's had no impact on us. (P55-T1)*

Finally, time was identified as an asset, especially for slowing down and enjoying a slower pace of life, contributing to a sense of calmness and satisfaction and allowing more time for self-reflection.

> *So, things became a lot more home-based and things just slowed down a bit, and I wasn't bothered by that. I found it very calming and satisfying and I was able to pay attention to things – pay more attention to people like my husband and my friends and myself. I didn't feel like I was being pulled away all the time. So, I would say my satisfaction level has not gone down after COVID, except for being unable to see my family. (P3-T1)*

Physical and virtual spaces support health and well-being

Physical assets are items that are visible, tangible, and can be touched. The participants described two physical assets: 1) living space and 2) digital devices. Having living space is a physical asset because it provides basic shelter that all people require. However, during the pandemic, participants in this study described how their living spaces also contributed to their social needs, health, and well-

being. In the following quotation, one participant identified how important it was to have a space to nurture: "*I found during COVID and particularly during the early lockdown we felt so fortunate [to have] personal space and a yard […] to have that space where you can walk around and nurture and feel part of was very important*" (P14-T1).

Physical living space was an asset that helped people to meet their social needs. The first way this was described was by using space to create physical boundaries with other people. This was important for people who lived with others because they used the spaces at their disposal to create time apart and to support time together. This supported the relationships with the people they lived with and overall well-being.

> *She does her thing in the morning, I typically do work or whatever I want to do and then while she's up doing whatever she wants to do, I'll go down and I'll do my workout. And then we'll get together in the afternoon and go for a walk. So, we designed our day so we have separation, so we don't kill each other or get too sick of each other. (P21-T1)*

During the pandemic, people had to find new ways to socialize outside of their homes. One participant turned their garage into a social space to meet with others.: "*My son came over this summer and totally cleaned out our garage and we entertained in our garage […] So really, we were having neighbours and friends in, just for a chat, you know, one-to-one, in the garage*" (P60-T1).

Finally, manipulating physical living space also helped contribute to participants' general health. One participant described using the kitchen as a space to exercise in the winter months while being outside was not possible and at a time when public gyms were closed due to the restrictions: "*We're all doing online exercising, we have a trainer three times a week. The kitchen becomes a gym, either rolling around on the kitchen floor or lifting weights or stuff like that*" (P51-T1).

Digital devices like computers and smartphones are needed to access virtual activities like online programs. This study described digital devices like computers and smartphones as physical assets supporting social needs like staying connected to family members.

> *We are very fortunate to have [technology], so our greatest loss has been that we don't get to touch our grandchildren. That's the biggest loss, but we count our blessings every day that we live in an era when we have technology to bring us close together. (P56 – T1)*

Other assets like knowledge of how to use technology, motivation to learn new technology, and people who can act as resources for technology use were all beneficial to accessing the virtual world through a digital device. "*I get a lot of help from my son with my technology, but if somebody doesn't have that [help], you're kind of out-to-lunch really*" (P49-T2).

Positive relationships and adapted community services help to maintain connectedness

Social assets are interpersonal factors that contribute to resilience. When public health restrictions limited in-person social contact, participants described how this led to a loss of social connectivity. To fulfill social needs, three assets were identified: 1) positive relationships with households and neighbours, 2) tailored activities for social engagement, and 3) access to appropriate community services.

At the household level, having a positive relationship with a spouse or other family members was identified as an asset,

particularly when people were encouraged to stay home and spend more time together. *"Me being with my husband and my best friend so much has not been a bad thing […] We count ourselves very fortunate to be in a bubble with somebody that we like to be with"* (P56-T1).

For people who lived alone, there were additional concerns about the impacts of social isolation during the pandemic. One participant who lived alone described the importance of maintaining social connections with people in their neighbourhood; this connection was framed as a reciprocal social asset whereby neighbours could rely on each other for help.

> *As I said, I'm here by myself, I make sure that I if I don't feel well, I can call next door and say 'I'm not feeling well, can you please come over here and do this or this or that'. I try to maintain a relationship based on [knowing] what my needs are. (P61-T1)*

Beyond the household, participating in adapted social activities was an asset to support community engagement. Social clubs, gaming groups, and volunteer organizations that pivoted from in-person to virtual platforms during the pandemic created opportunities for people to maintain social connections. Although this was not an accessible option for everyone, many participants in this study acknowledged the benefits of having access and being able to engage on online platforms.

> *I belong to [a] book club, which, of course, means that we have to meet by Zoom […] we used to meet at each other's houses before COVID came, but we're now meeting once a month by Zoom, and I belonged to that club for probably 15 years. So, uhm, it's very good. I enjoy it (P49-T1)*

Access to adapted community services was identified as an asset, including online ordering of groceries and medications, contactless pick-up, and home delivery. Dedicated shopping hours for older adults and online booking for blood tests reduced crowding, providing comfort.

> *I must say in some ways life became a little easier, like even blood tests. I have [medication] I'm on, I have to take blood tests every month and before I would go to a place to get blood test, I'd sit there for an hour because you didn't know whether its busy or not. Now everything is done online by appointment. It's a lot better. Even grocery stores where you know from 7:00 to 8:00 in the morning seniors can go and shop without crowds, you know, so that's good. (P48-T1)*

Asset mobilization at the community level during the pandemic

Figure 1 highlights the participant assets across socio-ecological levels to support their resilience. Although assets are presented according to four classes, including personal characteristics, energy, physical, and social, these categories are not mutually exclusive. For example, the self-efficacy to join an online social group (personal characteristic asset) coupled with knowledge of technology use (energy asset) to use a digital device (physical asset) can support access to virtual social connections (social asset).

An important topic that emerged from this study was that, in addition to supporting themselves and their households in coping throughout the pandemic, participants also wanted to support others in their communities. Asset mobilization at the level of the community was met with difficulty due to pandemic-related
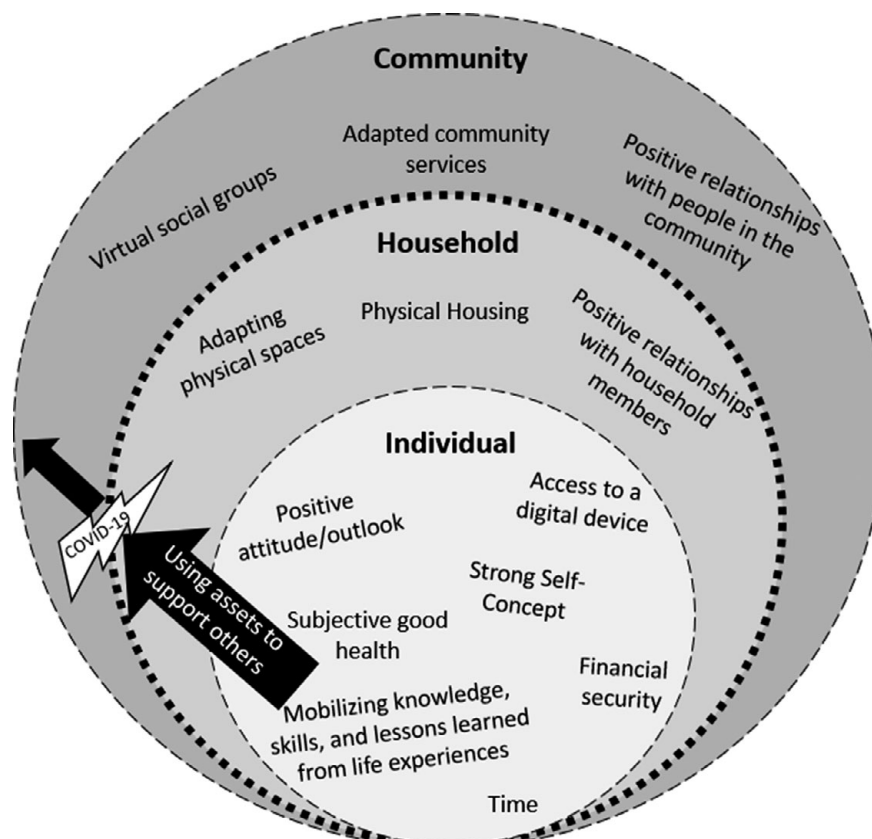

Figure 1. Asset map: Assets of participants spanning individual, household, and community levels, and the influence of the pandemic on asset mobilization at the community level.

restrictions. In Figure 1, the dotted lines illustrate fluidity across socio-ecological levels. There is a thicker dotted line between the household and community levels, and an arrow becomes thinner when attempting to move from the household to the community, demonstrating the difficulty participants had trying to use their assets to support community members.

Formal activities, like structured volunteer work, were limited, particularly during the earlier phases of the pandemic, and adapted to reduce social contact in the latter phases. Adapted activities only sometimes led to satisfactory benefits. In the following quotation, one participant described how the benefits of supporting others through volunteer work diminished:

> *I think you volunteer for two reasons, 1) To do something good that's needed and 2) To validate yourself or to confirm for yourself that you can do things. So of course, it's still good to be doing anything that is helping somebody out, but it's not answering my needs as much in that I don't have any contact with people and that's normally a real side benefit for me in anything I do, is to interact with somebody else at a human level. (P38-T1)*

Informal activities, such as driving someone to an appointment or having a telephone conversation, were less affected than formal activities. Contributing to society by supporting others enhanced personal satisfaction and well-being.

> *I went through breast cancer about eight years ago. So that's one of the things I really enjoy doing is finding people or hearing about people that are going through cancer treatment, and I always get in touch with them to give them the benefit of what I went through and just have someone to talk. So, I think those things are really important to me to feel that as if I can make somebody else feel good. (P42-T1)*

Older adults, in this study, highlighted the desire and potential value of their contributions for their communities. However, as one participant describes in the quotation below, the potential of this demographic is often overlooked – and, during the pandemic, went largely untapped.

> *I think that other people, retired other people – old other people like me – it's a potential. I mean we have experience; we have a lot of knowledge. I am 78, I can still do things – a lot of things […] the potential is there. Since I couldn't do my volunteer job, I was looking to do any volunteer job during the pandemic, but I couldn't find anything. I contemplated delivering food to old people like me who can't drive or something, but I mean I look around, it's not structured. There is no where to go and see if you can help others or volunteer during this pandemic. Every volunteer job was closed. (P34-T2)*

Discussion

This study reports on the assets and asset literacy of community-dwelling older adults in the context of the COVID-19 pandemic. The Conceptual Model of Asset Literacy for Household Resilience (O'Sullivan et al., 2018) acted as guide for understanding how a person or collective group moves through the steps of asset identification, from awareness to action. Assets identified in this study included having a positive attitude or outlook, subjective good health, time, money, knowledge, and skills gained from life experience, physical living space, digital devices to facilitate virtual connectivity and access to adapted community services, and supportive social networks. These findings are similar to those of other studies exploring the assets of older adults during the pandemic (Fuller and Huseth-Zosel, 2021; Garnett et al., 2023).

Literature in the field of resilience has long emphasized many of these assets. Hobfoll (2001) identified a plethora of resources, including physical housing, positive social relationships, time, money, and other resources associated with communities. Older adults' knowledge, skills, and experience gained over their life course have also long been recognized as an asset (Cosco et al., 2017). Likewise, personality traits have been associated with cognitive health in old age, which has further implications for the pathology of diseases like dementia (Graham et al., 2021; Hobfoll, 2001). Essentially, age itself leads to the accumulation of a greater pool of assets over time (Hayman et al., 2017). In this sense, being an older adult is an asset where life experience, leading to increased knowledge, skills, and resources, allows one to draw on assets as needed.

Of the findings presented, a salient contribution is that participants expressed difficulty using their assets to contribute to their communities, through formal and informal activities, due to restrictions on social participation. This is consistent with other studies of older adults during the COVID-19 pandemic (Herron et al., 2022; Igarashi et al., 2021). Evolving public health restrictions no doubt restricted the participation of whole societies in valued activities; however, research examining policies and practices implemented during the pandemic, reveals the ways in which ageist attitudes and stereotypes towards older adults permeated this discourse and policies (Fraser et al., 2020; Lagacé et al., 2024). In line with calls for an all-of-society approach to DRR, there needs to be a culture of inclusivity that recognizes the potential contributions of older adults and promotes opportunities for participation. This has reciprocal benefits for the giver and receiver and is part of the dynamic process feeding back to one's resilience (Norris et al., 2008).

A supportive community is essential for fostering inclusion and opportunities for the participation of diverse populations in society. *Age-Friendly Cities and Communities* is an example of an initiative that aims to support the meaningful participation of older adults in physical, social, and digital spaces by recognizing the value they bring to their communities and creating accessible spaces for them to contribute (WHO, 2023). Although there is progress towards inclusion, more work needs to be done in the field of DRR where high-risk populations, like older adults, have a tendency to be viewed as passive with a focus on needs rather than as active contributors. In this study, the participants clearly expressed their assets and framed the potential value of their contributions as untapped resource for their communities in the context of the pandemic. Future research should also consider more explicitly asking about assets, asset value, and opportunities to use assets when developing scales to measure resilience in older adults and other age demographics.

Reporting on assets also has value for a growing interest in measuring concepts like resilience, scales which measure resilience often use assets as indicators. Indicators typically used in scales to measure resilience in older adults are self-efficacy, self-esteem, hope, optimism, perception of economic and social resources, spirituality, perception of relationships and social support, and ability to participate in daily routines and activities (Akatsuka & Tadaka, 2021; Friborg et al., 2003; Martin et al., 2015). However, using The Conceptual Model of Asset Literacy for Household Resilience (O'Sullivan et al., 2018) as a guide, it is also essential that people have an awareness of their assets and recognize their inherent value in order to use them. Indicators that ask about

awareness and asset value did not appear explicitly in the scales we found in the current literature. This is an important consideration for future research in this area because ageism towards older adults may influence how society and older adults themselves value their assets (Ayalon et al., 2021). It is not enough to list qualities that exist as assets but to also explore whether a person, group, or community has awareness of and opportunity to use them.

With the continued threat of disasters cause by climate change and global COVID-19 pandemic, there is renewed interest in strategies to support the resilience of people, communities, and countries (UNDRR, 2021). Asset identification is a crucial upstream investment in DRR practices because it illuminates health-enhancing or 'salutogenic' factors that can be leveraged when disasters and emergencies occur (Lindstrom & Eriksson, 2010; Pérez-Wilson et al., 2021). Beyond identification, creating opportunities for people to use their assets is another essential component of asset literacy. In a disaster context, thoughtful reflection weighing the impacts of public health restrictions is needed to balance perceptions of risk with opportunities for contribution. This is particularly important for high-risk populations whose social participation was limited and protection emphasized during the pandemic (Government of Canada, 2020).

Future research should examine policies and practices related to older adults across diverse disaster contexts to explore if and how assets are identified and highlighted compared to needs alone. With a renewed sense of urgency to address disaster impacts stemming from the COVID-19 pandemic and climate-related disasters, this is an opportune time to review and revise these essential documents and re-examine how we portray older adults as contributors to society. Furthermore, it would be interesting to further understand older adults' perspectives on the COVID-19 pandemic over time, given that it lasted longer than anyone could have anticipated. In this study, we did not find significant changes in participant experiences between the two timepoints and therefore did not complete a longitudinal analysis.

Limitations

There are varying interpretations about the age at which older adulthood begins. Rather than focusing on a specific age group, research in the field of aging has emphasized differences between the 'third age,' or younger older adults, who tend to experience perceived active, healthy, and independent lifestyles, and the 'fourth age' or older, older adults, a stage of life marked by decline and dependence (Gilleard & Higgs, 2010). Although no distinct number determines the shift from the third to fourth age, this study included only a few people aged 80 and older who may have had different perceptions of assets and resilience. Additionally, while we worked to sample a diverse group of older adults across Canada, there was limited participation with respect to racial, ethnic, marginalized, and gender-fluid groups and older adults experiencing housing or food insecurity. Further, we lost half of the participant sample between T1 and T2, which may have influenced our findings; the COVID-19 pandemic posed challenging circumstances that may have affected the continued participation of older adults in this study over time. At least one participant from our initial sample passed away between T1 and T2.

Related to sample characteristics, we did not collect data on income, which could have also influenced our findings and the resources that participants had access to during the pandemic. Finally, while we sought to recruit older adults from across Canada, our final sample included 5 of the 10 Canadian provinces.

Although older adults living in an institutionalized setting were outside the scope of this study, given that housing and social participation were highlighted as assets, it would be interesting to explore the assets and resilience of those living in institutions like long-term care homes.

Conclusion

Rapid population aging and the continued threat of climate change are co-occurring, affecting populations and public health. There is growing interest in strategies and initiatives to reduce risk and the support resilience of citizens. In disaster contexts, older adults are typically viewed as a homogenous group who need protection, and this was exemplified during the global COVID-19 pandemic. The assets – resources, gifts, and strengths – older adults use to support themselves and their communities are typically excluded from the discourse related to this demographics. With respect to DRR practices and policies, building resilience in high-risk populations, like older adults, requires investment in asset identification paired with opportunities for inclusive participation. This has the potential for far-reaching impacts, such as expanding indicators in scales to measure resilience in old age, including the inclusion of older adults in volunteer programs during and after disasters, more diversity in the portrayal of older adults in media reporting, and emphasis on older adults as active participants in DRR policies.

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