Use of Community Support and Health Services in an Age-Friendly City: The Lived Experiences of the Oldest-Old

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Increases in population ageing and urbanization have led to the development of age-friendly cities (AFC). While much has been done to integrate the needs of younger, healthier older adults, little research has examined the needs of the oldest-old. This phenomenological study explored the lived experience of 10 community-dwelling individuals, aged 80 years and older, using community support and health services. Three central themes emerged: *individual circumstances, personal compensatory mechanisms* and *community design and structure*. Numerous implications for AFC development were highlighted: (1) functional ability rather than chronological age should be considered in AFC planning, (2) informal social community supports are very important for those in advanced age; AFC planners must consider individuals in advanced age who are on the edge of losing their independence, and whose loss of independence may be hastened or delayed based on informal social supports available, (3) community design that recognizes and integrates structures to support the needs of frailer older adults may provide a protective buffer to enable these individuals to remain in their homes longer, and (4) socially isolated frail older adults are difficult to reach; innovative strategies are required to ensure their unique needs are discovered and incorporated in community planning.

Keywords: age-friendly cities, community support, health services, oldest-old, hermeneutic phenomenology

Introduction

The global trends of population ageing (WHO 2007a) and increased urbanization (UNPFA 2007) have led urban design, health, and social care planners to carefully consider the needs of older adults living in the community (Beard and Petitot 2010, Plouffe and Kalache 2011). The importance of environmental design with advancing age, both the physical layout of a community and how services and programs are delivered, is well documented (Nahemow and Lawton 1973, Hunt 2001, Michael *et al*. 2006, Chippendale and Boltz 2015), as are guidelines to develop age-friendly communities (WHO 2007a, WHO 2007b). In 2007, the World Health Organization (WHO) developed the Age Friendly City (AFC) framework (2007a, 2007b) to encourage cities to implement age-friendly strategies and to create more accessible urban environments for older adults. The WHO framework identifies eight domains as being most necessary to improve and maintain quality of life for older adults (Figure 1). Within the AFC framework, one critical domain for older adults is that of community support and health services.

For the purpose of this study, the WHO definition of community-based care (2004, p.16) has been separated into three distinct categories: health services, formal (traditional) community supports, and informal (social) community supports. Health services are defined as any medical or health services performed by health professionals. Formal (traditional) community supports are defined as formal support services that help with activities of daily living, provided by a professional agent (excluding medical and health services) such as help with cleaning, personal emergency response systems, meal support, and transportation. Informal (social) supports are defined as informal community-based programs that may provide support such as activity clubs, church membership, community organizations, and social clubs.

It is well known that use of health services and community support increases with age, particularly in advanced old age (Sinha 2012) and that the needs for these services differ significantly depending upon an individual's level of independence, function, and age. Although the WHO recognizes that the heterogeneity of individuals increases with age (WHO 2002, WHO 2007a), this is not clearly reflected in the AFC framework or guidelines for AFC development (WHO 2007a, WHO 2007b). While the literature relating to age-friendly cities focuses on implementation and evaluation of age-friendly initiatives, it does not capture the heterogeneity of older adults nor does it explicitly address the differing needs of the full spectrum of older adults for whom age-friendly initiatives are being established. The needs of individuals in advanced old age who may be frail, dependent and socially isolated are unique and very different from the needs of independent or interdependent, typically younger, older adults. Understanding the heterogeneity and the diverse and dynamic needs that exist within the older adult population is essential for the development of age-friendly communities (Caldwell *et al*. 2008, Kerr, Gordon, MacDonald and Stalker 2005).

Using the AFC framework (WHO 2007a, WHO 2007b), the purpose of this study was to specifically focus on individuals in advanced old age, to better understand the lived experience of community-dwelling individuals, 80 years of age and older, using community support and health services. Our study highlights how the oldest-old select from available informal support services to meet their own specific, self-directed needs in order to remain independent in the community, while at the same time playing a role within the informal support system providing help to their peers.

Methods

Design

This study employed hermeneutic phenomenological methodology grounded in an interpretivist-constructivist paradigm informed by the work of Heidegger (1996), Gadamer (2004), and van Manen (1990). Hermeneutic phenomenology is a widely used qualitative research method that aims to explore, describe, and interpret lived experiences, attributing meaning to these experiences (Flood 2010, Smythe *et al*. 2008, Streubert and Carpenter 2011). Meaning is created through the dialectical interaction between participant experiences and interpretations of these experiences (Flood, 2010; van Manen, 1997). Understanding that people are influenced by their own values, life histories, and surrounding environment was important to the creation of holistic interpretations of the lived experiences of these participants (Koch, 1999). Constant reflection, questioning and analysing of ideas and themes that arose within participant stories enabled an understanding of how the oldest-old use community support and health services.

Study rigour was ensured through the use of Tracy's (2010) quality criteria and Guba and Lincoln's (1994) criteria for credibility. Tracy (2010) prioritizes eight elements to ensure quality in qualitative research, including worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethics and meaningful coherence. Similarly, Guba and Lincoln (1994) emphasize the need for trustworthiness and authenticity in qualitative research. Trustworthiness is ensured by credibility, transferability, dependability and confirmability, whereas authenticity encompasses fairness, ontological elements and actions within the process of inquiry (Guba and Lincoln, 1994).

Ethics

Ethical approval was obtained from The University of Western Ontario's Research Ethics Board prior to commencement of study.

Participants and context

London, Ontario, Canada was selected as the location of study due to its active participation in the WHO's AFC initiative (Age Friendly London Task Force 2012). In Canada health is a provincial responsibility and there may be differences between provinces. In Ontario, where this study was conducted, health care is generally free, funded by the government with local health services for people living at home planned and funded by Local Health Integration Networks (LHINs). Home care services, although available free, are limited in scope and duration. Home care services are accessed by calling one's LHIN, a case manager or care coordinator is assigned, a home visit arranged and service eligibility (level and duration of care) determined. Care is delivered by service provider agencies who are under contract with the LHIN. Types of services provided include nursing care, therapy, personal care, homemaking and end of life care. Private services are often arranged by families to support publicly funded services.

London is the fifth largest population centre in Ontario by population (474,786). London is a regional centre for health care and education; its economic activity is centred on education, medical research, insurance and information technology. At the time of the study, almost 18% of London's population was 65 years of age and older. Using local planning district information (City of London 2013), the Westmount neighbourhood was chosen as the community of choice for this study as it has one of the highest proportions of resident older adults in the city (City of London 2013). At the time of the study, the Westmount community consisted of 18,930 residents (9990 female; 8940 male). The community included a broad spectrum of ages: 0-19 years (24%); 20-44 years (28%), 45-

65 years (29%); 65+ years (19%). Approximately 5 percent of the Westmount community were 80 years of age and older. Immigration status included: Canadian-born (61%); Foreign-born (22%); visible minority (16%); indigenous identify population (<1%). Average individual income in the Westmount community ($44,208 Cndn) was consistent with the average total income of one-person households in Canada ($43,774) (City of London 2018).

The Westmount Senior Neighbourhood Advisory Council (SNAC) was the first point of contact with the local community. A presentation was made to the Advisory Council and recruitment posters were provided for distribution to the broader community with an invitation for any individual interested in participating to contact the researcher. Individuals were eligible to participate if they were: i) a resident within the Westmount community (or living on the outskirts but identifying Westmount as their home community), ii) 80 years of age and older, and iii) able to speak fluent English.

Data collection method

Purposeful sampling (Palys 2008, Patton 2001) was used to identify 10 individuals meeting the eligibility criteria, consistent with the recommended sample size for phenomenological research (Creswell 2007, Morse 2000). Interested and eligible individuals were provided with a letter of information and consent form. In-depth, semi-structured interviews (Morrow 2005) were conducted by one researcher (FVZ). Consistent with guidelines for qualitative interviews (Creswell 2007), interviews were 60-90 minutes in length. Interviews were conducted in the participant's home or in a location of their choice. Prior to commencement of the interview, participants were asked to provide socio-demographic and service use information to enable the researcher to provide a profile of study participants. A semi-structured interview guide was created.

During the interview, participants were asked to reflect upon their day-to-day experiences using community support and health services. Five specific questions were asked:

(1) What do community support and health services mean to you?

(2) How do you experience community support and health services in your everyday life?

(3) How do you feel about the community support and health services in Westmount?

(4) How important are community support and health services to help you stay independent and living in your own home?

(5) Do you have any other thoughts about community support and health services or experiences that you would like to share? Have we missed anything?

Additional probes were used to encourage participants to provide details that afforded a deeper understanding of their answers to initial questions. Participant interviews were audio-recorded and transcribed verbatim to ensure accurate representation of participant stories. Reflexive notes made by the interviewer prior to, and following, interviews allowed holistic documentation of environment, participant characteristics, mood, non-verbal communication, subtle nuances, and reflection on emerging interpretations.

Data analysis

Consistent with hermeneutic phenomenological methodology, data analysis occurred simultaneously with data collection (Miles, Huberman and Saldaña 2014, Streubert and Carpenter 2011). As interviews were completed and transcribed, continuous reflection on emerging ideas and interpretations was conducted through journaling, self-reflexive notes, and regular debriefing with the research team. Inductive thematic analysis was performed using immersion and crystallization (Lincoln and Guba 1985, Ward-Griffin *et al*. 2004, Patton 2001). Immersion consisted of listening and re-listening to the audio files,

reading and re-reading the transcripts, and constant reflection until familiarity with the data was established and important ideas, patterns and themes began to emerge and crystalize.

Thematic analysis (van Manen 1997) consisted of holistic, selective and line-by-line analyses. During the *holistic phase* each transcript was read as a whole (van Manen 1997) with the aim of understanding the participant as a holistic being and obtaining the 'big picture' or 'snapshot' of the participant's experience. Field notes were also analyzed to enrich participant snapshots. The aim of *selective analysis* was to extract important words, quotes, topics and patterns from participant stories through multiple complete read-throughs of transcripts (van Manen 1997). Within this phase, first and second cycle coding were completed (Miles *et al*. 2014, Saldaña 2009). Open and descriptive coding were used in first cycle coding, and pattern and focused coding techniques for second cycle coding (Saldaña 2009). In *line-by-line analysis,* the final list of codes from each transcript Rereading the transcripts line-by-line enabled a deeper understanding of how each sentence or sentence cluster was related to the use of community support and health services (van Manen 1997). Thematic analyses were conducted both within and cross cases (Miles *et al*. 2014).

Throughout the process, analytical memos and annotations were used to help keep track of emerging themes, questions, and ideas (Miles *et al*. 2014). Furthermore, consistency in interpretation of findings was strengthened through simultaneous coding and discussions with the research team (Miles *et al*. 2014). Member checking (participant validation) was used to ensure the trustworthiness of interview data and to establish study rigor (Guba and Lincoln 1994, Tracy 2010). Member checking was completed with nine of the ten participants. Interview transcripts were reviewed with participants to ensure their experiences were accurately portrayed. Member checks were conducted in-person

with six participants and via telephone as selected by the remaining three participants. The missing member check was due to an inability to contact the participant. Multiple attempts during a two-week period were made to contact the individual via telephone. At the end of the two-week period, the participant's number was out of service, resulting in an inability to connect with the participant.

Findings

Participant ages ranged from 80 to 95 (mean 86). Although participants were of advanced old age, the majority rated their health as good to excellent. Our study therefore identified a group of individuals remaining independent through their selective use of informal support services. Participants' socio-demographic and service use characteristics are described in Tables 1 and 2.

Three central themes emerged as to how study participants experienced using community support and health services: (1) individual circumstances, (2) personal compensatory mechanisms, and (3) community design and structure.

Theme 1: individual circumstances

Past and current personal circumstances such as degree of familial support, the ability to drive, and significant life events, played a key role in how participants used and experienced community support and health services.

The majority of participants in this study rated their health from good to excellent and, as might be expected with good health, reported their health service use was limited to routine medical and dental screenings and medication-related pharmacy use. However, if a chronic health condition existed or a previous health problem was exacerbated, as was the case with one participant who had experienced a heart attack and two strokes, more frequent monitoring was required. Functional status, as one would expect,

influenced the use of traditional community supports. For example, if mobility issues were present, completing everyday activities presented a challenge requiring additional support: '. . . they were coming once a month but then a while ago I said no because I had to have help [to] make the bed and other things for me that I was unable to do myself' (P4).

All participants reported using informal (social) community supports, again reflecting the relatively healthy nature of this group. The most frequently used supports included apartment building socials, church membership and participation in a variety of social activities in the Westmount community. Social activities included the Westmount Gathering Place, the Berkshire Club, coffee hour, bridge, euchre, and shuffleboard clubs, and various community gatherings. Membership in these social organizations provided participants with a general sense of belonging, value and engagement but it was interesting to note that these supports were used for many different reasons. For some it seemed to increase social connectedness within the community and develop new relationships, while for others their main purpose was the pursuit of enjoyable activities and pastimes, all important factors in maintaining one's independence.

All participants had close family or friends on whom they relied, thus reducing their dependency on, and need for, traditional community supports and health services. Furthermore, the majority of participants indicated that they turned to a family member or friend when they needed help. In particular, for those that expressed challenges with their independence, their main source of aid came from family and friends. Having a family member or friend available also provided a sense of reassurance. Participants also benefitted from their larger peer groups. However, this was highly dependent on each individual's specific circumstances, including their own familial composition. One participant for example, indicated that family came first (she lived with her husband and

had adult children who also lived close by, and she also had mobility issues that made it more challenging to go out without support) and as such did not participate much in church or community activities. However, for others, especially for one of the participants who had recently lost his wife, he indicated that community groups were important to make friends and to socialize. For another participant she enjoyed going to community gatherings, but these came second to visiting her husband who was in a long-term care home. After visiting her husband, she would then consider attending other activities.

Transport help from family and friends was crucial. One participant described the importance of support from family and friends: '. . . some volunteers . . . will give rides . . . for people, but I've thankfully been able to manage without doing that, with friends and family, you know?' (P4). Although this participant did have mobility issues and did require assistance with getting around town, the presence of family and friends negated the need to reach out to formal (traditional) supports to help with her transportation needs. The ability to drive was also considered very important among participants, sometimes receiving help from family and friends and sometimes providing it:

> . . . well when my husband retired . . . we went everywhere together. Well he drove everywhere we went. It clips your wings when you stop driving, it really does, but you get used to it. And of course I'm fortunate to have my son and daughter take me where I need to go, so far anyway . . . (P10)

> When you get older, you have to have one another . . . I have one friend and she barely can walk right now and she can't drive anymore, they took her license away. Whenever . . . she wants to play cards . . . I pick her up. Because you have to do that, you get older, you got to kind of help one another. (P1)

Theme 2: personal compensatory mechanisms

Adaptive coping strategies are intrinsic features unique to each individual, influencing how community support and health services are used and experienced. Participants were cognizant of their functional abilities. Although the majority described being mobile and able to perform everyday tasks, when faced with a challenge resulting from their reduced mobility or stamina, participants described different coping strategies and levels of problem solving based on their functional ability. For example, they altered everyday activities to be able to complete them more easily, such as cleaning one room per day to combat decreasing stamina, relying on personal assistive devices such as walkers, or changing walking routes to accommodate changes in mobility:

> I used to clean the whole house on Friday, I always did that . . . and . . . it was too much . . . so I thought I'm going to do one room and I can take the time and clear everything and do it really well . . . the next day, I'll do another room . . . one room at a time . . . so that's how I'm working that. But if I got that I had to do it all, then no, I would need a cleaning person. (P10)

> No, I don't have any help. But it is not too easy anymore . . . I closed one bathroom and two bedrooms upstairs . . . yesterday I vacuumed the whole house . . . and it was not too easy because by the time I was finished vacuuming my back kinda bothered me. (P1)

A number of participants described experiences from earlier in their lives, such as military service, which may have influenced their personal coping strategies and afforded them a greater degree of resilience. While these self-directed mechanisms could successfully enable an individual to better cope, there may come a tipping point where personal

strategies are insufficient to address a particular issue, and external help from family, friends or community is required.

Theme 3: community design and structure

It was evident that the community played a significant role in the lives of participants, both in terms of the physical design and layout of the community, and its structure (how services are delivered within the community). The desire to make new friends and develop new bonds was often an instigator in seeking social community supports and participants frequently expressed the desire for more social connections, but it was identified by participants that community design played a significant role in this:

> . . . . . it would be nice if apartments . . . had more of a public meeting place where you can meet down here . . . I often thought it'd be nice to have somewhere you could just go down and even if you took your own cup of coffee . . . But anyway, that was just wishful thinking. I know [in the] Cherryhill [community] they have quite the entertainment . . . you know. Community things that they get doing but . . . you can't expect it in the buildings like this, really. (P4)

Participants identified elements that they found appealing when they moved to the area, including the mall in the Westmount community which was viewed as a particularly important part of the community. The many supports and health services available within the Westmount community, including health clinics, local churches, and grocery stores were situated along main intersections within the community. One of Westmount's greatest assets as expressed by participants was proximity: 'You've got everything close near here' (P1). All participants voiced their concerns that the Mall was evolving in a way that was no longer meeting their needs. For example, the change from a more traditional

to an Asian grocery store resulted in unmet needs with many participants having to travel further to buy groceries. Physical changes were also made to the structure of the store, creating access only from the exterior of the building. Shoppers are now required to leave the mall and go outside to use the new entrance which proved challenging for those with reduced mobility, especially in the winter months. In addition, the change in the types of stores available in the mall was identified as a concern. Total services (one-stop shopping) appreciated by older adults are no longer available in the mall:

> We chose [this community] because . . . I had stopped driving and I can walk over to the mall, which was great the first couple of years, I'd just walk over anytime I wanted anything, it was lovely. Now it's gone downhill considerably . . . (P10)

> Well, my favourite thing was the mall . . . that's what made me come to this area . . but now . . . shopping is a little sparse . . . (P4)

Additional challenges with architectural design and accessibility were noted within the mall and community as a whole, including poor layout of grab bars making many public washroom cubicles unusable for one participant with limited knee flexion:

> Well . . . it's the case that they [property owners] don't seem to realize the bars . . . that everybody can't pull themselves up, you need to push. If they [grab bars] have an 'L' shaped bar on the side, a person can either pull on it or push on it . . . I mean it's just the one side and nothing else on the other side to hold on to. Not big enough to get your walker in beside it. So you're in trouble there. You don't want to hang on to the paper towel holder because who knows how well secured that is . . . (P4)

Participants described their many reasons for visiting the mall, many of which were not transactional in nature, but rather focused on exercise and social interaction. Participants suggested additional amenities they would appreciate, including library and community information services, educational speaker events, quiet spaces where they could meet and chat, and walk-in clinics for non-urgent medical care:

> I'd like to see a community center put up in Westmount Mall . . . maybe a place where you could have minor health problems looked after. Sort of an all-encompassing place . . . social and health wise and educational. (P7)

It was clear from participants' experiences that the Westmount Mall acts as a community hub for residents, providing novel and innovative programming to optimize the health, function, and independence of the Westmount community but this can be compromised by unfavourable changes over time.

Discussion

This study focused on independent but potentially at-risk residents in advanced age, of a neighbourhood of a mid-size Canadian city. They maintained their independence through identifying their specific needs and seeking informal services to meet those needs. Generally, they had little interaction with the formal health or traditional support system.

From the point of view of service planning, we wonder if the participants in this study represent a transitional phase on their way to greater dependency. The natural history of these individuals has not been explored. It is not known whether they are stable or in transition to greater levels of support and care. A further study is required to answer this question. If participants are in transition, there may be opportunity for useful intervention but participants are relatively unknown to the formal health and social

system. A greater integration of the formal health system, formal and informal social support systems, along with greater collaboration among health authorities, health service providers, urban planners and corporate developers may aid in the identification of at-risk individuals early in this transition to dependency when useful intervention may be possible. It is important that individuals, the health system and the community as a whole work in partnership across the age spectrum. It should not require a significant medical event (for example, a fractured hip in a fall) to bring an at-risk individual to the attention of the health and social systems.

The interviews emphasize the importance of environment and ongoing environmental development. For example, the loss of local and accessible shopping and the development of large box stores that the oldest-old find too challenging were identified as critical issues. The availability of programs within the local community is not the responsibility of mall owners or property developers, but is seen as critical for the ongoing maintenance of independence. This emphasizes the need for the property owners to be part of the health and social care planning process.

The importance of environmental design cannot be overemphasized as independence is not an abstract concept but something that operates within an enabling (or dis-enabling) environment. Changes in the environment can have as significant an effect on an individual's independence as a major medical event.

How a community is physically designed, which services are available, and how these services are organized and delivered are important factors that influence how individuals interact with their community, the supports and services within it, and the informal social supports available to local residents. As the needs of the individual increase, the demands placed on the environment also increase (Nahemow and Lawton 1973). Likewise, health and social service use has been found to increase with multiple

comorbidities (Sinha 2012) and with decrease in functional status (León-Muñoz *et al*. 2007). Meaningful community memberships help to develop social relationships which are beneficial to emotional and physical health (de Jong Gierveld *et al*. 2015, Register and Scharer 2010). A lack of social relationships has been shown to be a health risk factor (Rowe and Kahn 1997). If individuals are able to maintain their health and functional status through the social supports identified by our participants within an enabling environment, their risk of chronic conditions and resultant need for health services, and the cost associated with their provision, may be significantly reduced.

Riley (1994) developed the notion of structural lag theory as it relates to individuals and the social structures available to them. Structural lag "occurs because changes in people's lives and changes in social structures typically are not synchronic, [resulting in] a mismatch between the numbers and kinds of people of a given age and existing patterns in the social structures into which people must fit." In the same way we argue that there is a structural lag created by the needs of individuals in advanced old age and a lack of change in the built environment in response to those needs. Sometimes the opposite happens. Our participants identified how their mall had changed and no longer meets their needs. Although in North America the ability to drive is linked with independence, self-worth, and a means of performing everyday activities (Al-Hassani and Alotaibi 2014), our participants acknowledged that for many of those in advanced old age this is no longer an option. Consequently, the services available within their immediate environment become of paramount importance.

The urban landscape is changing. The shift from local community developments to peripheral big box stores may benefit some strata of society, but this ‘advancement’ is viewed negatively by the oldest members of the community who find the big box stores difficult to get to and challenging, overwhelming and exhausting to negotiate. A shopping

mall can be the central hub of a community, providing access to services as well as social opportunities (Kloseck, Crilly and Gutman 2010). Our participants suggested additional amenities they would appreciate, including library and community information services, educational speaker events, quiet spaces where they could meet and chat, and walk-in clinics for non-urgent medical care. There is an essential role to be played by local government, urban planners, corporate developers, the Ministry of Health and other health and social care funders and providers when designing and approving infrastructure of this kind. This raises important questions regarding who should pay for these amenities. Malls are privately owned and one cannot expect mall owners to fund social programs. It is imperative that the Ministry of Health collaborate with developers. The funding of a community hub by the Ministry of Health would be creative and well aligned with their 'aging at home' strategy. It may also reduce the need for more costly health services.

It is important to keep in mind that older adults exhibit a great deal of heterogeneity and age is not always representative of ability, function, health status, or independence level. While we included chronological age as an inclusion factor for our study, our participants displayed functional ability considerably better than that suggested by the literature. We recruited the 'oldest old', but the functionally active members of this cohort rather than the house-bound, isolated, frailest members. However it may well be that it is at this level of functioning that support and intervention might postpone further deterioration. It is important to note, too, that different ethnic, minority and income groups often present with frailty and medical issues at different ages. Thus, within these communities the age appropriate for intervention may be far earlier.

Our study explored the experiences of individuals whose ability to live safely in their own home is dependent on supports available to them. When their adaptive coping

strategies work, and informal friend, family and community supports are available, they are fine. The question is what happens when these support systems fail or are unavailable in an ever increasing resource-constrained environment? These individuals are at risk and a lack of these supports can have a negative impact, pushing them over the edge to either being isolated or requiring relocation into a long-term care facility. Such a failure is likely to happen quickly, with the ill-health of the family carer for example, with little chance to plan interventions, potentially leading to poor outcomes. For each individual, the potential risk is likely to be unique. Developers, service providers and the community itself all have enormous potential to influence the outcomes for the oldest-old residents. By ensuring infrastructure and services are in place to provide timely support, creating a safety net to step in expediently when an individual's adaptive coping strategies begin to fail, could enable individuals to remain at home longer, thereby saving money for the health and social services system. By creating community-level resources, which could be facilitated and supported by a peer network within the community, the timely intervention of appropriate support services could enable individuals to remain safely, and cost effectively, at home.

Methodological considerations

Frail and isolated community-dwelling individuals of advanced age are the hardest to reach in the community but they are also the ones who present the most complex and increased needs (Sinha 2012, WHO 2007a) and whose voices most need to be heard. It is important that future studies expand their recruitment to include frail, isolated individuals in advanced age as their primary target population for study.

Conclusion

Understanding that older adults are not a homogeneous population is imperative to understanding the different needs they present. Effective community support and health services are essential in maintaining health and independence for older adults. This is especially true for the oldest-old with functional challenges but for whom compensatory strategies and support services can facilitate sustained independent living in their own homes. The cohort identified in this study presents both a challenge and an opportunity for Age-Friendly City planners. The provision of economical, targeted resources to older adults at risk of losing their independence may provide a protective buffer to enable sustained independent living. Health and business mandates differ and thus successful aging in place initiatives require collaboration among government policy makers, health service providers, urban planners and corporate developers.

Factors such as race, ethnicity, language, and income level can greatly impact the processes by which older adults find and use community support and health services. These factors are often associated with barriers to service access such as geographic segregation or isolation in poor or high crime neighbourhoods, one's ability to afford transportation or healthy food, and an inability to communicate in the prevailing language. Most importantly, given this study's findings regarding the importance of timing for preventative intervention, the need for future research that examines both the different pathways to services access and differences in the appropriate timing of interventions is critically needed.

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Table 1. Participant socio-demographic characteristics

Characteristic	**Study Participants (n=10)**
Mean Age (years)	86 (range: 80 – 95) (SD = 4.6)
Gender	Female (n=8) Male (n=2)
War Veteran	30% (n=3)
Marital Status	
Married	40% (n=4)
Widowed	60% (n=6)
Mean years lived in Westmount Community*	19 (range: 6 – 48)
Living Arrangements	
Alone	60% (n=6)
With Spouse/Partner	20% (n=2)
With Other Family Members (e.g. child, etc.)	20% (n=2)
Currently have a caregiver/helper?	
Yes	20% (n=2)
No	80% (n=8)
Highest Level of Education	
Elementary School	10% (n=1)
High School	50% (n=5)
College (diploma)	20% (n=2)
University with a Bachelor's Degree	10% (n=1)
University with a Master's Degree	10% (n=1)
Perceived Health Status	
Excellent	10% (n=1)
Very Good	30% (n=3)
Good	50% (n=5)
Fair	10% (n=1)
Poor	0% (n=0)
Extremely Bad	0% (n=0)
Perceived Independence Level	
Completely Independent	20% (n=2)
Very Independent	30% (n=3)
Somewhat Independent	40% (n=4)
Very Little Independence	10% (n=1)
Not At All Independent	0% (n=0)
Completely Dependent	0% (n=0)
How often leave home?	
Nearly Everyday	50% (n=5)
3-5 Days/Week	30% (n=3)
1-2 Days/Week	20% (n=2)

*Participants either lived directly within the Westmount Community, or on the outskirts, but considered Westmount their primary community.

Table 2. Participant community support and health service characteristics

Characteristic	**Study Participants (n=10)**
Who do you turn to when you need help?	
Family/Friend	80% (n=8)
Health Professional	10% (n=1)
Other	10% (n=1)
Do you currently use community supports in Westmount?	
Yes	100% (n=10)
No	0% (n=0)
How often do you use these community supports?	
Everyday	0% (n=0)
A few times per week	50% (n=5)
Once per week	30% (n=3)
A few times per month	10% (n=1)
Once per month	10% (n=1)
Rarely	0% (n=0)
How satisfied are you with these community supports?	
Extremely Satisfied	60% (n=6)
Usually Satisfied	20% (n=2)
Somewhat Satisfied	20% (n=2)
Somewhat Dissatisfied	0% (n=0)
Usually Dissatisfied	0% (n=0)
Extremely Dissatisfied	0% (n=0)
Do you currently use health services in Westmount?	
Yes	100% (n=10)
No	0% (n=0)
How often do you use these health services?	
Everyday	0% (n=0)
A few times per week	0% (n=0)
Once per week	0% (n=0)
A few times per month	40% (n=4)
Once per month	40% (n=4)
Rarely	20% (n=2)
How satisfied are you with these health services?	
Extremely Satisfied	50% (n=5)
Usually Satisfied	50% (n=5)
Somewhat Satisfied	0% (n=0)
Somewhat Dissatisfied	0% (n=0)
Usually Dissatisfied	0% (n=0)
Extremely Dissatisfied	0% (n=0)
Accessibility of community support and health services	
Very easy to access	40% (n=4)
Usually easy to access	60% (n=6)
Somewhat easy to access	0% (n=0)
Somewhat difficult to access	0% (n=0)
Often difficult to access	0% (n=0)
Not accessible	0% (n=0)
Are all community support and health service needs being met in your neighbourhood?	
Yes	90% (n=9)
No	10% (n=1)

Figure 1. World Health Organization age-friendly city domains (WHO 2007a, 2007b)