

Aging in Place in Social Housing: A Scoping Review of Social Housing for Older Adults

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Article

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Résumé

L'accès à un logement abordable constitue une préoccupation de plus en plus pressante, et le logement social fait partie des ressources offertes aux locataires plus âgés à faible revenu. Une revue de la portée a été réalisée pour comprendre les caractéristiques des locataires plus âgés et des services de logement social en vue d'identifier des stratégies pour promouvoir le vieillissement sur place. Sept bases de données d'examen par les pairs ont été consultées pour identifier les articles pertinents. Un total de 146 articles ont été recensés. Presque tous ces articles ont examiné les caractéristiques sociodémographiques et de santé de locataires plus âgés, tandis que 72 % des articles ont traité des services de logement social, notamment de politiques d'admissibilité, de dotation en personnel et d'accès aux services sur le site. Cette recension met en évidence la grande vulnérabilité des locataires plus âgés et démontre l'importance de la colocalisation des services et du personnel de soutien pour les locataires afin d'identifier sur les lieux les locataires vulnérables et les mettre en contact avec les services disponibles. De plus amples recherches sur les enjeux de la location (p. ex. l'état des logements, la gestion des loyers) sont nécessaires en vue de proposer de nouvelles approches pour les propriétaires de logements sociaux où vivent des locataires plus âgés qui désirent vieillir sur place.

Abstract

Access to affordable housing is a rising concern, and social housing is one approach to support low-income, older renters. A scoping review was undertaken to understand the characteristics of older tenants and social housing services to identify strategies to promote aging in place. Seven peer review databases were searched to identify relevant articles. A total of 146 articles were included. Almost all examined socio-demographic and health characteristics of older tenants, while 72 per cent examined social housing services, including eligibility policies, staffing, and access to on-site services. This review points to a high vulnerability among older tenants and highlights the importance of co-locating services on-site with a tenant-facing support staff to identify vulnerable tenants and link them to services. More research on tenancy issues (e.g., unit condition, rental management) is needed to identify new opportunities for social housing landlords to help older tenants age in place.

Introduction

Housing is an important determinant of health, and poor housing conditions have been linked to a variety of physical and mental health conditions (Krieger & Higgins, 2002). Across North America, a growing number of older adults have a core housing need and live in substandard housing (Government of Canada, 2019; Joint Center for Housing Studies, 2019). For older low-income renters, affordability is the main concern. In Canada, housing is considered affordable if it costs less than 30 per cent of before-tax household income. Almost 20 per cent of older adults in Canada experience a housing affordability issue (Canada Mortgage and Housing Corporation, 2020); this rate was doubled for older adults living alone (Canada Mortgage and Housing Corporation, 2020), and disproportionately impact older adults in urban centres, and those who are visible minorities and recent immigrants (Clark, 2005). Affordable housing programs are therefore critical for helping older Canadians access housing.

Affordable housing is a broad term that can encompass housing provided across the continuum, ranging from temporary housing to home ownership (Canada Mortgage and Housing Corporation, 2018a). Social housing is a subset of affordable rental housing (sometimes referred

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to as *subsidized or public housing*) that provides financial support to tenants, as rents are geared-to-income (RGI) and/or supplemented with subsidies (Housing Services Corporation, 2014).

Although subsidized households are increasingly made up of older adults, most social housing programs for older people are limited. For example, recent statistics in the United States show that the percentage of subsidized renters who are over age 65 has risen 5 percentage points to 35 per cent over the past 10 years (Joint Center for Housing Studies, 2018), yet the supply of housing assistance for older renters continues to serve only one in every three eligible older adults (U.S. Department of Housing and Urban Development, 2018). Therefore, it is no surprise that social housing waitlists comprise primarily of older people (Housing Services Corporation, 2012; National Low Income Housing Coalition, 2016). In Canada, the percentage of older adults on the waitlist has increased 10 per cent over the past decade, and wait times have doubled (Ontario Non-Profit Housing Association, 2016a). In fact, the social housing system in Ontario has been described as a “seniors housing system” because it is as large as Ontario’s long-term care system (Ontario Non-Profit Housing Association, 2015): 75,000 low-income older adults across the province live in a social housing community, and there are another 50,000 on the waitlist (Ontario Non-Profit Housing Association, 2015).

While social housing programs were created to support low-income older adults and families who can live independently, older people living in social housing increasingly require access to home care and support services to maintain their health and independence (Redfoot & Kochera, 2004). Furthermore, older adults on the waitlist for social housing experience poor health outcomes (Carder, Kohon, Limburg, & Becker, 2018; Carder, Luhr, & Kohon, 2016), and a growing number of vacancies in social housing are filled by tenants who identified as being vulnerable (Ontario Non-Profit Housing Association, 2015). In response, some social housing providers across Canada and the United States integrate health and support services for tenants, such as personal care, housekeeping, meals, and health and wellness services (see Canadian Urban Institute, 2020, for review); however, these are usually funded separately from housing and may only be offered to some of the residents. For example, in Ontario, social housing providers may have a subset of units dedicated to supportive housing that are funded by the Ministry of Health and facilitated by a health service partner (Ontario Non-Profit Housing Association, 2015); however, the availability of rent-subsidized supportive housing units is limited with long wait times (Ontario Non-Profit Housing Association, 2016b).

In the past 10 years, governments have made substantial investments to increase affordable housing options for low-income older adults. For example, the Canadian federal government invested \$1.9 billion from 2011–2019 to improve affordable housing options for older adults and persons with disabilities (Canada Mortgage and Housing Corporation, 2018b), with a focus on increasing supply of affordable options and improving the quality of existing housing stock. Canada’s National Housing Strategy (Government of Canada, 2017) also prioritizes the housing needs of older adults by developing a variety of programs that will provide homes that are affordable and that meet their changing needs as they age in place:

The proposed National Housing Strategy approach will reduce housing needs for seniors by providing rental support through the Canada Housing Benefit. Affordability for low-income seniors living in community housing will be protected through the community housing initiatives and funding to provinces and territories. The National

Housing Co-Investment fund will also support the construction, repair, and renewal of housing units for seniors, which is expected to relieve affordable housing demand among low-income seniors. In addition, the Fund will invest in affordable housing and will support partnerships with services to allow seniors to age in place. (Government of Canada, 2017, p. 25)

The National Housing Strategy (Government of Canada, 2017) is also invested in the sustainability of community housing programs (including social housing), which includes repairing and renewing existing housing stock and expanding the supply of community housing to ensure that low-income households (including older adults) can live in vibrant, inclusive communities.

While there has been an abundance of research on older tenants dating back to the inception of social housing, there has been no attempt to scope this literature to gain an overall picture of the current state of the evidence and gaps in knowledge. As this field of research spans several decades and thus reflects different social and policy priorities, it is important to identify key areas of research that may need updating to reflect the current needs of older adults in social housing. Given the rising demand to create and implement programs to ensure housing stability for low-income older adults living in social housing (Canadian Urban Institute, 2020; Joint Center for Housing Studies, 2019; Locke, Lam, Henry, Brown, & Abt Associates, 2011), it is necessary to identify the vulnerabilities that older tenants may face that place their housing at-risk and the strategies that social housing providers use to promote successful aging in place. Therefore, the aims of this scoping review were to map the literature on the characteristics of older adult tenants living in social housing, to identify factors that impact their housing stability, and to scope the strategies that were used by social housing providers to tackle these risks. Such insights enhance the ability of researchers and policy makers to develop new strategies to support low-income older adults to age in place in social housing contexts.

Methods

A scoping review was selected to describe the characteristics of older adult tenants, the factors that put their housing at risks, and the available social housing services to support aging in place. Whereas systematic reviews aim to assess the quality of evidence (Munn *et al.*, 2018), scoping reviews map the literature to examine how research has been conducted in a specific field, to identify key characteristics of a particular concept, and to articulate gaps in knowledge to inform future research and policy directions (Arksey & O’Malley, 2005; Munn *et al.*, 2018). As shown in Supplemental Table 1, our scoping review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (Tricco *et al.*, 2018) to ensure methodological rigour and clear reporting; a study protocol was registered with Open Science Framework and can be accessed at <https://osf.io/m8wru>.

Eligibility Criteria

Eligible studies selected for review included those with urban-dwelling adults ages 55 and older who were living independently in rent-subsidized social housing that reported on (a) physical, mental, and social health characteristics of older tenants; or (b) characteristics of social housing service models that impact aging in place, such as housing policies, staff levels, and provision of on-site services. All included studies were full-text, peer-

reviewed articles using either quantitative, qualitative or mixed methods that were available in English, with no location or publication date restrictions.

Studies were excluded if they had no policy or programming implications for social housing programs for older adults, as well as if they focused on older adults that (a) were experiencing homelessness; (b) were on the waitlist for social housing; (c) were relocating out of social housing due to redevelopment (e.g., gentrification); or (d) lived in private dwellings, market-rent apartments, retirement communities, assisted or sheltered housing with supports, or long-term care or nursing facilities. Given that housing affordability disproportionately impacts older adults in urban settings (Clark, 2005), this review excluded studies on social housing in rural communities. Studies on affordable housing were also excluded; although rents are often below market-rent to be affordable to low- and moderate-income households, rents are not subsidized, and ongoing government financial assistance is not typically included (Housing Services Corporation, 2014). Finally, literature reviews and commentaries were excluded.

Information Sources and Search Strategy

The following databases were searched to July 2019: PsycINFO, Social Work Abstracts, MEDLINE, Embase, CINAHL, AgeLine, and Sociological Abstracts. Search strategies for each database were developed in consultation with an academic librarian and were translated to reflect each platform's vocabulary and search fields. Controlled vocabulary and text words were used to search for concepts related to "older adults" and "social housing". The full PsycINFO search strategy is provided in Supplemental Table 2. Additional records were identified through a hand search of the reference list of all included studies.

Study Screening

Covidence systematic review software was used to facilitate the screening process. Titles and abstracts were screened by two independent reviewers to assess relevance. Full-text articles were then reviewed by two independent reviewers to assess final inclusion. Discrepancies were resolved by consensus after discussion.

Data Charting

Based on Arksey and O'Malley's (2005) framework, a data charting form was used to extract information on authors, year of publication, location, social housing type, study design, purpose and/or intervention, building and tenant characteristics, and key findings. Key findings were reviewed and mapped onto various housing topics as they pertained to the characteristics of older tenants and social housing service models. These topics were developed through a discussion based on emerging themes across articles. Following a calibration exercise, two reviewers independently extracted data from all articles, and discrepancies were resolved through a discussion.

Results

A total of 7,171 articles were located. After removing duplicates, 3,925 titles/abstracts were screened, and 436 records were identified for a full-text review. In total, 290 records did not meet the inclusion criteria; therefore, 146 articles were eligible and included

in this review (see Figure 1). Studies were predominately conducted in the United States (80.8%) and Canada (9.6%) and were published between 1964 and 2019. As shown in Figure 2, there has been a steady increase in publications over the past five decades, with a first peak in the 1980s and again in the 2010s, with over one-third of included studies published between 2010 and 2019. An overview of all included studies is provided in Supplemental Table 3.

The majority of included studies were cross-sectional surveys (55.5%) and 10.3 per cent followed tenants longitudinally, most commonly to profile the characteristics of tenants, to understand the prevalence of certain health conditions (e.g., psychiatric conditions), or to examine factors associated with a particular health (e.g., hospital admissions) or housing (e.g., perceptions of safety) outcome. One fifth of studies evaluated the outcomes of health interventions (e.g., health screening programs, interprofessional health care teams) and recreation programs (e.g., Tai Chi) through randomized controlled trial designs, pre- and post-comparisons (with or without a comparison group), and process/outcome evaluations. The remaining studies consisted of qualitative observations, interviews and focus groups (8.9%), mixed methods (2.7%), and secondary data analyses (2.1%); one study also used geographic information system (GIS) mapping to conduct a spatial analysis of neighbourhood resources (Park, Cho, & Chen, 2019).

As shown in Figure 3, almost all studies (85%; $n = 124$) examined socio-demographic and health characteristics of older tenants, including physical, mental, and social health outcomes. Just under three-quarters of studies (72%; $n = 105$) reported on characteristics of social housing service models, most commonly focusing on the provision of on-site services; however, other topics such as building and unit condition, housing policies, staffing, and safety and security were also examined. Given the breadth of included studies that span several decades, Supplemental Table 4 provides a summary overview of the research topics discussed in each study, while the following results summarize key findings, referring to the most recent or relevant articles.

Characteristics of Older Adults in Social Housing

Older tenants in social housing experienced a variety of economic, health, and social inequalities. Most were women in their seventies who lived alone and had very low education and income levels. Approximately one-fifth of older tenants were also food insecure (Parton et al., 2012), and many had low intake of fruits and vegetables (e.g., Agarwal et al., 2019; Noonan, Hartman, Briggs, & Biederman, 2017), leading to nutritional deficiencies (e.g., Harris, Soteriades, Coolidge, Mudgal, & Dawson-Hughes, 2000). The majority of older tenants reported fair or poor health; most had multiple chronic health conditions (e.g., Agarwal et al., 2019), low health literacy (Agarwal, Habing et al., 2018), and reported taking an average of eight prescription medications (e.g., Pater, Agimi, & Albert, 2014). Vision and hearing problems were also common (e.g., Agarwal et al., 2019), and around one-quarter experienced cognitive impairment (e.g., Cotrell & Carder, 2010).

In addition to poor physical health, studies showed that around half of older tenants experienced pain, had low mobility and physical activity levels, and reported difficulty doing their usual activities (Agarwal et al., 2019). Furthermore, up to half reported problems with (instrumental) activities of daily living (Gibler, 2003; Robbins et al., 2000). Although some older tenants had adult children (Chi, Yuan, & Meng, 2013; Sanders, Stone, Meador, & Parker, 2010) and/or close neighbours to provide support for daily activities (Sanders et al., 2010; Sheehan, 1986b), over one-quarter

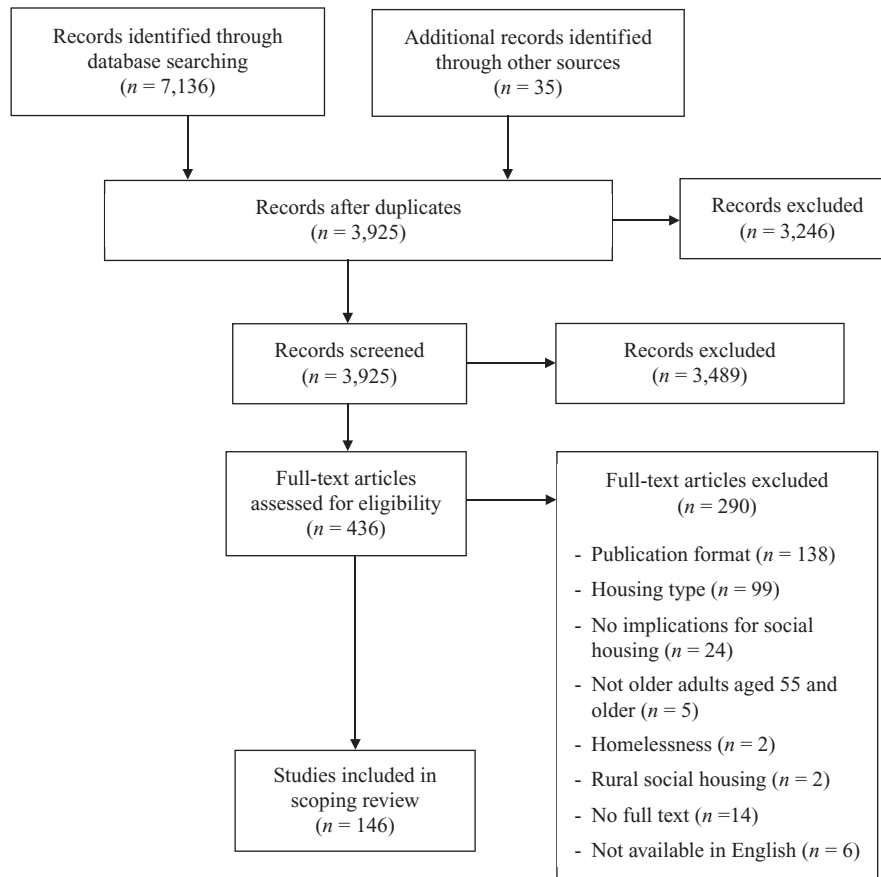


Figure 1. PRISMA flow diagram.

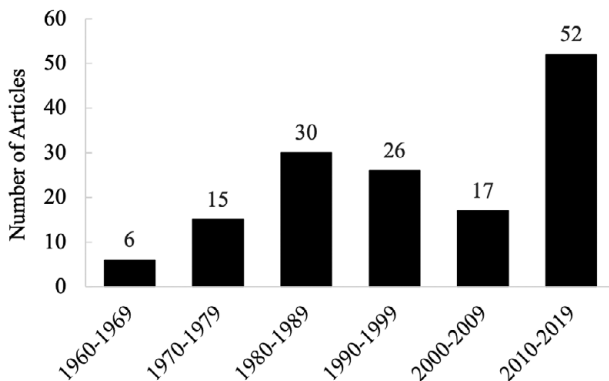


Figure 2. Year of publication.

had limited family support (Sanders *et al.*, 2010) and most neighbours wanted to help only on a short-term basis (Sheehan, 1986b). Therefore, many older tenants lacked informal networks to offer support, and declining physical functioning and reduced ability to carry out daily activities were the main reasons older tenants voluntarily moved out of their units (Bernstein, 1982; Weinberger, Darnell, & Tierney, 1986).

Loneliness was prevalent among older adults in social housing, with rates as high as 40 per cent (e.g., Gonyea, Curley, Melekis, & Lee, *et al.*, 2018; Gonyea, Curley, Melekis, Levine, & Lee, 2018;

Taylor, Wang, & Morrow-Howell, 2018; Wee *et al.*, 2019). Three-quarters of tenants also expressed a desire for more opportunities to build new relationships (Cotrell & Carder, 2010), and between 31 per cent and 60 per cent reported feeling socially isolated, left out, and a lack of companionship at some or all of the time (Taylor *et al.*, 2018).

Poor mental health and substance use disorders were common, and changes in mental health status were a leading cause of eviction among older tenants (Bernstein, 1982). Psychiatric conditions impacted approximately one-third of older tenants (Noonan *et al.*, 2017); mood disorders were the most common (e.g., Cotrell & Carder, 2010; Robbins *et al.*, 2000; Robison *et al.*, 2009), with one-quarter to one-third reporting depression and up to 50 per cent reporting depression and anxiety (Agarwal *et al.*, 2019). Additionally, one-quarter had substance use disorders (Rabins *et al.*, 1996).

Hospital admissions and emergency department (ED) visits among older tenants were also high, with one-quarter to one-half being admitted to the hospital in the past year (Pater *et al.*, 2014; Weinberger *et al.*, 1986), and 11 per cent using the ED as their main source of health care (Parton *et al.*, 2012). Furthermore, although the frequency of nursing home placements was relatively low (4% over a 28-month period; Smith Black, Rabins, & German, 1999), they were the third most common reason that older tenants voluntarily moved out of their units (Bernstein, 1982) and were usually precipitated by the tenants' declining physical and mental health and/or an inability to carry out daily activities (Weinberger *et al.*, 1986).

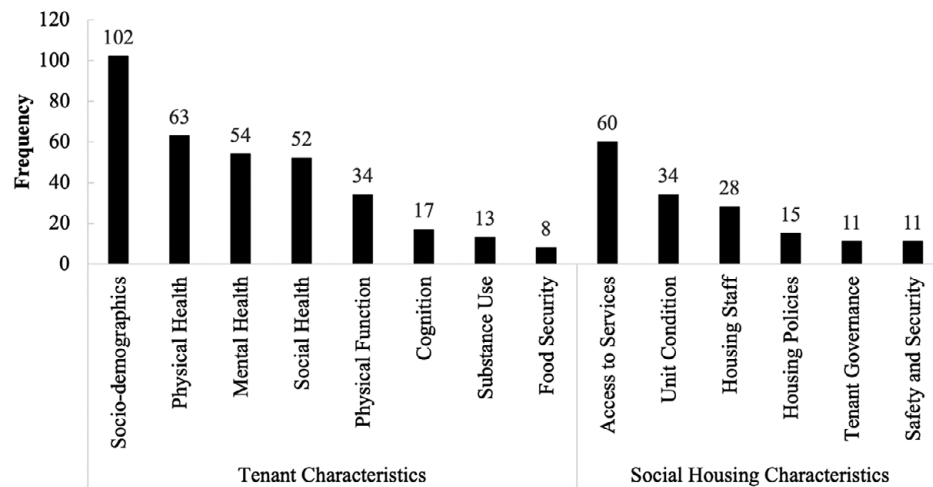


Figure 3. Frequency of housing topics identified in the literature.

Characteristics of Social Housing Service Models

Unit condition

Social housing buildings tended to be built between the 1950s and 1970s, and units were small (less than 50 square metres) one-bedroom apartments with a bathroom and kitchen. Early studies found that older adults in social housing had higher housing satisfaction than those living in the community (Carp, 1976); however, these studies were conducted within eight years of the housing complex being built, where amenities were still modern. Other research suggested that older tenants in subsidized rental housing were more likely to rate their housing conditions as fair or poor (Gibler, 2003), and that the units may not meet their cultural (Seo & Mazumdar, 2011) or accessibility needs (Fox et al., 2017; McCunn & Gifford, 2014). Those living in non-accessible units were concerned about their unit's ability to accommodate their needs as they aged in place (McCunn & Gifford, 2014), and older tenants identified several accessibility features that their unit urgently needed, including bathroom aids, front door spyholes and keychains, intercoms, adequate storage for mobility aids, and parking/charging stations for mobility scooters (Fox et al., 2017).

Housing policies

Housing policies discussed in the literature were primarily focused on eligibility and retention. While some housing providers noted obvious age and income restrictions (e.g., Jacobs, 1969; Suggs, Stephens, & Kivett, 1986), many had "independent living" clauses (Heumann, 1988; Sheehan, 1986a) that focused on performance of daily activities (Bernstein, 1982; Suggs et al., 1986). Housing providers with strict policies had limited involvement in managing tenant well-being, while those with more flexible policies tended to monitor independence and service use, and track changes in medical status (Sheehan, 1986a). For these buildings, frail, older tenants who were accessing formal or informal in-home supports were often allowed to stay in their units, even with declining physical functioning (Sheehan & Wisensale, 1991). Despite having independent living clauses, few building managers used them to evict an older tenant (Heumann, 1988); in cases where older tenants were asked to leave, it was predominately due to their declining mental health and/or posing a safety risk to the building (Bernstein, 1982; Suggs et al., 1986).

Housing staff

Housing staff usually consisted of a building manager (e.g., Bernstein, 1982; Heumann, 1988; Robbins et al., 2000) and maintenance staff (Heumann, 1988). Although these staff were typically hired for their skills in managing the physical and fiscal property, they frequently engaged in tenant-support activities (Heumann, 1988), despite no formal training to fulfill this role (Lucio & McFadden, 2017; Suggs et al., 1986). Most housing managers reported that they had limited knowledge of which older tenants were experiencing difficulties managing their units and/or health (Heumann, 1988) and expressed a need for more training in identifying at-risk tenants and connecting them to services (Sheehan & Wisensale, 1991).

Some housing providers created tenant-facing roles, such as "Tenant Resource Coordinators" (Blandford, Chappell, & Marshall, 1989), "Resident Activity Directors" (Lucio & McFadden, 2017), and "Resident Services Coordinators" (Blumberg, Jones, & Nesbitt, 2010; Sheehan, 1999) who had prior experience working with older adults and/or formal training in gerontology (Schulman, 1996). Tenant-facing staff had a variety of roles: they supported recreation programs (Noonan et al., 2017) and tenant-led events (Lucio & McFadden, 2017), provided information to older tenants (Blandford et al., 1989; Sheehan, 1999), helped coordinate on-site services (Schulman, 1996), identified at-risk tenants and linked them to services (Schulman, 1996; Sheehan, 1999), and provided training for other building staff on how to identify older adults who needed additional support (Blumberg et al., 2010).

From the tenant perspective, tenant support staff were key sources of companionship and provided a sense of security (Schulman, 1996; Sheehan, 1999); they also helped foster more positive relationships between tenants (Blandford et al., 1989) and created a community-like environment where older tenants were empowered to have a stronger voice in the management of the building (Lucio & McFadden, 2017).

Access to services

Although many social housing buildings for older adults were surrounded by local amenities (Smith, Sylvestre, & Ramsay, 2002) and health and social service agencies, including primary care centres, libraries, seniors' centres, and family and support services (Park et al., 2019), most buildings provided some support

services on site (e.g., Bingham & Kirkpatrick, 1975; Suggs *et al.*, 1986). Most of these services were provided in partnership with community agencies (e.g., Bernstein, 1982; Suggs *et al.*, 1986) and included medical and nursing services (e.g., Agarwal *et al.*, 2019; Noonan *et al.*, 2017), social work (e.g., Gusmano, Rodwin, & Weisz, 2018), and psychiatric and mental health services (Robbins *et al.*, 2000; Yaggy *et al.*, 2006). Community supports were also available (Chi *et al.*, 2013; Suggs *et al.*, 1986), including home care (Blandford *et al.*, 1989), transportation (Bernstein, 1982; Schulman, 1996), meal preparation (Bernstein, 1982; Blandford *et al.*, 1989; Schulman, 1996), and housekeeping (Blandford *et al.*, 1989; Lawton & Yaffe, 1980). More recent research, however, suggested that access to homemaking and meal preparation was limited (Cotrell & Carder, 2010).

The co-location of support services in social housing buildings was found to have several benefits for older tenants. It reduced unnecessary 911 calls (Agarwal, Angeles *et al.*, 2018; Agarwal *et al.*, 2019), lowered hospital use (Blandford *et al.*, 1989; Gusmano *et al.*, 2018), and shifted health care funding from ambulance and ED care to pharmacy and home-health visits (Yaggy *et al.*, 2006). Accessing on-site services also improved independence and safety (Soderlind, 1989), promoted better physical health outcomes (Agarwal, Angeles, *et al.*, 2018; Diwan, Chang, & Bajpai, 2018), and improved energy levels, mood, and mental well-being while reducing psychiatric symptoms (Lo *et al.*, 2018; Rabins *et al.*, 2000).

Although the integration of health and support services on site had positive outcomes for older tenants, the provision of these services was often uncoordinated and unplanned (e.g., Schulman, 1996), and there were difficulties liaising with multiple agencies due to conflicting work hours and vacation schedules, and differences in agency-specific reporting requirements (Yaggy *et al.*, 2006). In some cases, tenant associations helped coordinate agencies on site (Bingham & Kirkpatrick, 1975; Robbins *et al.*, 2000), but another study found that inactive or dysfunctional tenant groups positioned themselves as gatekeepers to prevent certain programs from coming into the building (Yoo, Butler, Elias, & Goodman, 2009).

Tenant governance

Many buildings had tenant associations (e.g., Bingham & Kirkpatrick, 1975; Robison *et al.*, 2009; Yoo *et al.*, 2009) that conducted fundraising for building programs (Jacobs, 1969) and advocated for tenant issues (Bingham & Kirkpatrick, 1975; Jacobs, 1969; Robison *et al.*, 2009). Some of the tenants' priorities included improvements to the built environment, increased access to exercise and food programs, better promotion of building programs to non-participants, improvements for the safety of nearby cross-walks, and creation of more outdoor transportation options (Yoo *et al.*, 2009).

Safety and security

Although only 11 studies examined issues of community safety and security, those that did reported that older tenants often felt unsafe in their buildings (Bazargan, 1994; Normoyle, 1987) and indicated that crime, including personal assaults and thefts, was a major problem (e.g., Lawton & Yaffe, 1980; Normoyle, 1987; Parton *et al.*, 2012). This was particularly true when tenants reported that a high number of new tenants with significant mental health and addiction issues moved into the building, which resulted in higher rates of antisocial behaviours (Morris, 2015). As a result, one-half to two-thirds of older tenants reported frequently avoiding leaving their unit (Bazargan, 1994; Lawton & Yaffe, 1980), especially after dark (Morris, 2015). Safety concerns and fear of crime reduced housing and neighbourhood satisfaction (Lawton & Yaffe, 1980),

and was associated with lower morale (Smith & Sylvestre, 2008) and higher levels of depression among older tenants (Gonyea, Curley, Melekis, & Lee, 2018; Smith & Sylvestre, 2008).

Discussion

A growing number of older adults lack access to affordable housing. Older renters are particularly vulnerable, as over half of low-income older renters in North America spend more than 30 per cent of their income on housing costs (Federation of Canadian Municipalities, 2015; Joint Center for Housing Studies, 2019). Social housing programs, where rents are geared to income or supplemented with housing subsidies, are critical for helping low-income older adults access affordable housing. This scoping review examined the characteristics of older adults who live in social housing, identified factors that impact their housing stability, and explored strategies used by social housing providers to tackle these risks.

This review identified an abundance of research on social housing for older adults that spanned over five decades, with surges in publications in the 1980s and again in the 2010s, coinciding with unprecedented increases in the proportion of the population over age 65 (Hobbs & Damon, 1996; Vincent & Velkoff, 2010). While some housing topics have been consistently present across decades of literature (e.g., socio-demographic and health characteristics of older tenants and access to on-site services), others have emerged (e.g., functional status, cognition) and fallen off (e.g., safety, housing policies, unit condition) over time (see Supplemental Table 4). Key lessons emerging from the findings of this review are summarized in Table 1.

This scoping review revealed that decades of research show there is a high level of vulnerability among older adults in social housing; many face chronic physical and mental health challenges, high rates of disability, loneliness, and low levels of social support, increasing their risks of hospital admissions and nursing home placements. As declines in physical functioning were one of the main reasons that older tenants moved out of their units, co-locating health and community support services on site is a key mechanism for promoting aging in place.

Provision of on-site health and support services was found to improve a variety of health outcomes for older tenants (e.g., Agarwal *et al.*, 2019; Agarwal, Angeles, *et al.*, 2018; Diwan *et al.*, 2018; Gusmano *et al.*, 2018); however, this review highlighted that social housing providers were not usually the direct suppliers of on-site health and support services, which points to the importance of implementing strategies that foster successful collaboration between housing providers and service agencies (Redfoot & Kochera, 2004; Sheehan, 1996). Studies included in this review (e.g., Yaggy *et al.*, 2006) and others (e.g., Canadian Urban Institute, 2020; Ontario Non-Profit Housing Association, 2015), however, highlight difficulties co-locating support services in public housing buildings due to interagency conflict with other health partners working on site and difficulties sharing confidential information across sectors. For instance, in most jurisdictions, social housing providers are not custodians of health information. Furthermore, privacy legislation requires that tenants give consent before any relevant health or housing data are shared with partners. The lack of infrastructure for promoting the sharing of confidential information further complicates this process (Canadian Urban Institute, 2020). Therefore, more research is needed to understand the barriers that health and support service agencies face collaborating

Table 1. Overview of key findings

Older tenants face a high degree of vulnerability.	<ul style="list-style-type: none"> • Older tenants lived alone and had low education levels. • Compared to older renters and homeowners, those in social housing had less social support, higher rates of disability, and were more likely to report chronic health and psychiatric conditions, depression, loneliness, cognitive impairment, and food insecurity. • Older tenants were also at increased risk of hospital admissions and nursing home placements.
On-site staff are critical for supporting vulnerable older tenants.	<ul style="list-style-type: none"> • On-site housing staff dedicated to building relationships with older tenants were critical for engaging tenants and promoting aging in place. • Although housing managers frequently carried out tenant-support activities, they were not well-positioned to support vulnerable older tenants due to a lack of training. • Other housing staff such as resident services or tenant resource coordinators had experience working with older adults and played a critical role in identifying those tenants who required additional supports, linking them to appropriate services, and monitoring changes in needs.
Co-locating community support services in social housing buildings is key for facilitating access and promoting aging in place.	<ul style="list-style-type: none"> • Declining mental health, poor physical functioning, and inability to carry out daily tasks were three of the main reasons older tenants moved out of their units; therefore, providing services to support those needs can facilitate aging in place. • When services were available, key supports included primary care, psychiatric and mental health services, housekeeping, meal preparation, and transportation. • Most housing providers facilitated access to these on-site services through partnerships with community agencies; while these partnerships were sometimes difficult to coordinate, they were especially important for buildings located in resource deserts that otherwise had limited access to health services and other amenities in the community. • More research is needed to understand the barriers and facilitators to integrating health and community support services within social housing contexts, particularly from the perspective of social housing landlords who are invested in bringing services on site.
Meaningful tenant engagement is necessary to identify needs and create community.	<ul style="list-style-type: none"> • On-site staff dedicated to carrying out tenant engagement activities helped create a community where older tenants had a strong voice in the management of the building and could provide input into on-site programs and services. • Tenant associations played an important role in coordinating and promoting on-site services but may act as gatekeepers to prevent certain services from coming on site. • Housing staff have opportunities to support the development of peer networks to provide friendly visiting, organize social activities, and provide support with simple daily activities (such as shopping) that may not be accessible through community service agencies or familial networks. • More research is needed to identify strategies for promoting building engagement and social connections among older tenants, and to examine how housing providers can foster a sense of community, particularly in cases where they do not have tenant engagement staff.
Housing eligibility and retention policies are not well understood.	<ul style="list-style-type: none"> • Research on housing eligibility and retention policies is outdated and may not reflect current practices; while current evidence indicated that many social housing landlords have policies that focus on level of independence, it was difficult for housing managers to enforce these policies due to the challenges they face with identifying which tenants are vulnerable and in need of more supports. • With an increased focus on helping older tenants age in place, more research is needed to understand the role of social housing providers in identifying at-risk tenants, connecting them to services, and supporting transitions to alternative housing (e.g., assisted living, long-term care).

with social housing providers to offer on-site services, and strategies that can be implemented to overcome those barriers, including what opportunities social housing landlords have to make this collaboration more effective.

The benefits of integrating health and support services also highlight the need for a joint strategy across provincial/state-level departments in health and housing to fund support services in social housing contexts. This macro-level integrated care (Kodner & Spreeuwenberg, 2002) is essential for creating a system that ensures older tenants can access the support services that they need when they need them. For instance, the Ontario Non-Profit Housing Association (2015, 2016b) called for a joint provincial strategy between the Ministry of Health and the Ministry of Municipal Affairs and Housing to make support services in social housing part

of the core provincial budget. The need for macro-level integration is further reinforced by Canada's National Housing Strategy (Government of Canada, 2017), which has dedicated funds to support partnerships between housing providers and support services to ensure that low-income older adults are able to age in place.

In addition to adequate funding for supports in social housing, there is a need to better understand the role and obligations of social housing landlords in identifying vulnerable tenants, connecting them to services, and supporting transitions to alternative housing (e.g., assisted living, long-term care). Most of the reviewed literature examining these types of housing policies were conducted in the 1980s and tended to focus on eligibility (e.g., Bernstein, 1982; Heumann, 1988; Sheehan, 1986a; Suggs et al., 1986), with limited emphasis on how landlords handle situations where a tenant is no

longer suitable for independent living or how often this occurs (i.e., aging out of place). Of the limited and outdated research that is available, findings suggested that housing managers rarely enforced independent-living clauses due to difficulties identifying which tenants are vulnerable and in need of supports (Heumann, 1988; Sheehan & Wisensale, 1991). This difficulty is likely exacerbated by challenges that housing agencies and service providers face sharing confidential tenant information across sectors (Canadian Urban Institute, 2020; Ontario Non-Profit Housing Association, 2015), notwithstanding the fact that older tenants may not want their landlord to have access to their health information. The Canadian Urban Institute (2020), a not-for-profit organization that studies national and international urban issues, suggested that plain-language consent forms and trusting relationships between tenants and housing staff are key for encouraging tenants to voluntarily agree to share personal housing and health information with relevant partners. The importance of tenant support staff was echoed in the literature reviewed here, which found that resident services coordinators and other similar positions play an important role in identifying vulnerable tenants, making linkages to services, and monitoring needs (e.g., Schulman, 1996). These staff also had the added benefit of fostering a sense of community where tenants were able to have input into the types of programs and services that they wanted to see in their building (Lucio & McFadden, 2017).

Many tenant-support positions, however, are funded through federal or state/provincial legislation that provides guidelines on qualifications and responsibilities, and thus may not be consistent across social housing programs or available in all jurisdictions (Sheehan & Guzzardo, 2008). For instance, the environmental scan by the Canadian Urban Institute (2020) found that not all social housing providers supporting older adults have tenant support staff, and those that do have varied roles and responsibilities. As social housing landlords seek to implement policies and strategies to help older tenants age in place (e.g., see Locke *et al.*, 2011), it is essential to understand both the types of support they require (Bigonnesse & Chaudhury, 2019) and mechanisms needed to foster partnerships with service providers to facilitate these supports and ensure a soft landing in alternative housing for situations where tenants require more advanced care.

Offering accessible units with modern amenities is another way that social housing landlords can help older tenants remain in their home for as long as possible (Bigonnesse & Chaudhury, 2019; Joint Center for Housing Studies, 2020; Ontario Non-Profit Housing Association, 2016b). While several reviewed studies examined different aspects of unit condition, most were conducted in the 1970s and 1980s when social housing buildings and amenities were relatively new and tenants had just moved in. The oldest social housing buildings are now between 35 and 70 years old (Canada Mortgage and Housing Corporation, 2018a; Housing Services Corporation, 2014), and governments are increasingly investing in affordable housing redevelopment (for instance, see Canada's National Housing Strategy [Government of Canada, 2017]). However, there has been no recent attempt to examine how the built environment of social housing has been adapted (e.g., with home modifications, retrofits) to foster independence. In fact, only two studies in this review examined accessibility (Fox *et al.*, 2017; McCunn & Gifford, 2014), finding that older tenants felt their unit needed many urgent upgrades (Fox *et al.*, 2017) and were concerned about the ability of their unit to meet their needs as they aged due to the fact that their units were not accessible (McCunn & Gifford, 2014). Other work published by the Joint Center for Housing Studies (2020) found that only 40 per cent of subsidized

units met most of the requirements for "accessible livability" and that many had issues with the bathroom and kitchen and were not wheelchair accessible. Taken together, these findings suggest there is a strong need for policy efforts to take stock of necessary unit upgrades and modernizations, and provide additional funding for modifications and enhancements to ensure the built environment meets changing needs as tenants age in place.

While this review identified some of the key reasons that older tenants were evicted (due to declines in their mental health) or voluntarily left their units (due to their reduced ability to carry out daily activities), this research is dated (Bernstein, 1982) and thus may not reflect current experiences. This research also does not consider other factors that impact housing stability and retention, such as safety issues, rental arrears, and poor unit condition. For example, the research on safety concerns among older tenants in social housing has tended to focus on whether tenants feel safe in their building (e.g., Parton *et al.*, 2012) and how feelings of safety impact mental health (e.g., Gonyea, Curley, Melekis, & Lee, 2018; Smith & Sylvestre, 2008). Research has yet to explore perceptions of safety among service providers working on site, and how feelings of unsafety may impact tenants' access to services.

Older tenants may also face challenges completing their annual rent reviews to maintain access to their housing subsidy, ultimately leading to eviction due to the accumulation of rental arrears (Office of the Commissioner for Housing Equity, 2019). Although these difficulties may be linked to the complexity of the rent review paperwork, they are compounded by other issues, such as poor mental health, low literacy levels, money mismanagement and poor financial skills, and cognitive impairment (Office of the Commissioner of Housing Equity, 2019). Social housing providers and community support service agencies need to work together to address these vulnerabilities and create opportunities for financial empowerment to prevent evictions due to arrears. For instance, Toronto Community Housing Corporation (the largest social housing landlord in Canada) refers all older tenants with rental arrears to a housing equity office that uses a case management approach to address the underlying issues contributing to the arrears and broker repayment agreements, an approach that was successful at keeping 376 older tenants from being evicted (Office of the Commissioner of Housing Equity, 2019).

Declining physical and mental health may also make it difficult for many older tenants to keep their units clean and in good condition. While existing literature shows that some homemaking services are provided in social housing, level of service is not enough to meet growing needs (Cotrell & Carder, 2010). Furthermore, research has not examined how access (or lack of access) to these supports directly impacts housing outcomes. For example, pest infestations, which are common in many social housing buildings, may be particularly challenging for older tenants to manage if they lack the physical or mental capacity to adequately prepare their unit for treatment and/or do not have access to appropriate formal or informal supports to help them bag their belongings. Community-based participatory approaches are needed to foster collaborations between housing providers and community support service agencies to identify strategies to support unit condition and evaluate their success.

Methodological Considerations

Scoping reviews differ from systematic reviews in that they are used to map characteristics or concepts and to identify gaps in the literature, rather than appraise and synthesize evidence for a

particular practice (Munn et al., 2018). Given that the body of literature reviewed here has not previously been comprehensively reviewed, and our interest in mapping characteristics of older tenants and social housing service models, a scoping review was most appropriate (Munn et al., 2018). Findings from this scoping review may serve as a precursor to targeted systematic reviews that critically appraise the quality of evidence related to health service interventions integrated within social housing contexts to improve physical, mental, or social health outcomes for older tenants.

There are several limitations that should be considered when interpreting the findings from this review. First, given the vast multidisciplinary body of literature on older adults living in social housing that spans several decades, it is possible that our search missed eligible studies. Our review was not able to include studies published in languages other than English and examined those studies focused exclusively on social housing models in urban (as opposed to rural) contexts. Future research should consider social housing models for low-income older adults in rural communities, as housing options may be more limited in these settings, and health and support services may not be as readily available or accessible (Canada Mortgage and Housing Corporation, 2020). Therefore, rural communities may require different strategies to help low-income older adults age in place.

Second, our review did not examine the extensive body of grey literature that is available on this topic. For instance, some of the most recent research in the area of older adults and social housing is commissioned by state and/or federal governments or carried out by leading research centres or policy institutes, such as the Wellesley Institute, the Canadian Urban Institute, the Ontario Non-Profit Housing Association, and the Harvard Joint Center for Housing Studies. While it was not feasible to capture this growing field of grey literature in the current review, this remains a gap that should be addressed in future research.

Third, this review focused on exclusively older adults living independently in rent-subsidized independent living apartments; however, there are several other types of housing available for low-income older adults, such as sheltered, supportive, or assisted housing that future research could explore. This is particularly important for those interested in examining the integration of health and support services within subsidized housing contexts. For instance, a recently published international environmental scan of 35 low-income housing models for older adults with integrated health services (Canadian Urban Institute, 2020) found that, while rents were at or below market levels, older tenants often had to pay additional service fees to access on-site supports. One of the reviewed models included a social housing program from Winnipeg, Manitoba, where rents were geared to income (30% of gross annual household income), but the service package that included meals, housekeeping, and on-site activities was an additional \$700 per month. Future research is needed to examine how supportive or assisted living programs are provided to the low-income older population, including understanding how these programs are funded and ways to increase their availability and accessibility.

Fourth, the social housing services examined in this review reflect a multitude of government-funded housing assistance programs, all with different funding and policy regulations. While it was beyond the scope of this review to examine underlying federal, provincial/state, and local housing policies, future work should consider exploring the impact of various housing policies on the type and quality of housing resources that are available to low-income older adults.

Conclusion

Social housing programs provide affordable housing options for low-income older adults. However, this review points to a high level of vulnerability among older adult tenants living in social housing, many of whom face multiple chronic physical, mental, and social health challenges that may put their housing at risk and negatively impact their ability to age in place with dignity and comfort. Our findings highlight the importance of co-locating support services in social housing buildings to help tenants access primary care and community support services, such as homemaking and meal preparation. Dedicated tenant-support staff play an integral role in identifying vulnerable older tenants who require additional supports and link them to appropriate community services. There is an acute need for more research on tenancy issues impacting older tenants (e.g., unit condition/pest control, safety, rental management) to identify additional opportunities for social housing landlords to help older tenants age in place.

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References

- Agarwal, G., Angeles, R., Pirrie, M., McLeod, B., Marzanek, F., Parascandolo, J., et al. (2018). Evaluation of a community paramedicine health promotion and lifestyle risk assessment program for older adults who live in social housing: A cluster randomized trial. *Canadian Medical Association Journal*, *190*(21), 638–E647. <https://doi.org/10.1503/cmaj.170740>
- Agarwal, G., Angeles, R., Pirrie, M., McLeod, B., Marzanek, F., Parascandolo, J., et al. (2019). Reducing 9-1-1 emergency medical service calls by implementing a community paramedicine program for vulnerable older adults in public housing in Canada: A multi-site cluster randomized controlled trial. *Prehospital Emergency Care*, *23*, 718–729. <https://doi.org/10.1080/10903127.2019.1566421>
- Agarwal, G., Habing, K., Pirrie, M., Angeles, R., Marzanek, F., & Parascandolo, J. (2018). Assessing health literacy among older adults living in subsidized housing: A cross-sectional study. *Canadian Journal of Public Health*, *109*(3), 401–409. <https://doi.org/10.17269/s41997-018-0048-3>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, *8*, 19–32.
- Bazargan, M. (1994). Effects of health, environmental, and socio-psychological variables on fear of crime and its consequences among urban black elderly individuals. *International Journal of Aging and Human Development*, *8*(2), 99–115.
- Bernstein, J. (1982). Who leaves – who stays: Residency policy in housing for the elderly. *The Gerontologist*, *22*(3), 305–313. <https://doi.org/10.1093/geront/22.3.305>
- Bignonnesse, C., & Chaudhury, H. (2019). The landscape of “aging in place” in gerontology literature: Emergence, theoretical perspectives, and influencing factor. *Journal of Aging and the Environment*, *34*(3), 233–251.
- Bingham, R. D., & Kirkpatrick, S. A. (1975). Providing social services for the urban poor: An analysis of public housing authorities in large American cities. *Social Service Review*, *49*(1), 64–78.
- Blandford, A., Chappell, N., & Marshall, S. (1989). Tenant resource coordinators: An experiment in supportive housing. *The Gerontologist*, *29*(6), 826–829.
- Blumberg, M. T., Jones, P., & Nesbitt Jr., M. (2010). Community approaches to meet residents' needs in an affordable public housing community. *Journal of Housing for the Elderly*, *24*(3/4), 413–429. <https://doi.org/10.1080/02763893.2010.522458>

- Canada Mortgage and Housing Corporation. (2018a). *About affordable housing in Canada*. Retrieved 21 October 2021 from <https://www.cmhc-schl.gc.ca/en/professionals/industry-innovation-and-leadership/industry-expertise/affordable-housing/about-affordable-housing/affordable-housing-in-canada>.
- Canada Mortgage and Housing Corporation. (2018b). *Investment in affordable housing*. Retrieved 21 October 2021 from <https://www.cmhc-schl.gc.ca/en/professionals/industry-innovation-and-leadership/industry-expertise/affordable-housing/provincial-territorial-agreements/investment-in-affordable-housing>.
- Canada Mortgage and Housing Corporation. (2020). *Housing for older Canadians: The definitive guide to the over-55 market – understanding the market*. Retrieved 21 October 2021 from <https://assets.cmhc-schl.gc.ca/sites/cmhc/data-research/publications-reports/housing-for-older-canadians/housing-for-older-canadians-understanding-the-market.pdf?rev=7b7a784b-2d3f-45bf-9df1-89856f704d75>.
- Canadian Urban Institute. (2020). *Environmental scan of seniors social housing models*. Retrieved 8 January 2021 from https://canurb.org/wp-content/uploads/EnvironmentalScanofSeniorsSocialHousingModels_FINALReport_0114_SLH_CS_SSLTCl.pdf.
- Carder, P., Kohon, J., Limburg, A., & Becker, E. (2018). Waiting for housing assistance: Characteristics and narrative accounts of low-income older persons. *Housing and Society*, *45*(2), 63–80.
- Carder, P., Luhr, G., & Kohon, J. (2016). Differential health and social needs of older adults waitlisted for public housing or housing choice vouchers. *Journal of Aging and Social Policy*, *28*(4), 246–260.
- Carp, F. M. (1976). User evaluation of housing for the elderly. *The Gerontologist*, *16*(2), 102–111. <https://doi.org/10.1093/geront/16.2.102>
- Chi, I., Yuan, L., & Meng, T. (2013). Multidimensional needs assessment for low-income Chinese seniors in subsidized housing in Los Angeles. *Seniors Housing and Care Journal*, *21*(1), 113–125.
- Clark, W. (2005). *Canadian social trends: What do seniors spend on housing?* (Catalogue No. 11-008). Statistics Canada. Retrieved 21 October 2021 from <https://www150.statcan.gc.ca/n1/en/pub/11-008-x/2005002/article/8451-eng.pdf?st=flzBYvpF>.
- Cotrell, V., & Carder, P. C. (2010). Health-related needs assessment of older residents in subsidized housing. *Cityscape: A Journal of Policy Development and Research*, *12*(2), 47–66.
- Diwan, S., Chang, M., & Bajpai, S. (2018). Implementing multidisciplinary wellness programs in subsidized housing: University-community partnerships. *Journal of Housing for the Elderly*, *32*(1), 39–57. <https://doi.org/10.1080/02763893.2017.1393486>
- Federation of Canadian Municipalities. (2015). *Seniors and housing: The challenge ahead*. Retrieved 8 January 2021 from https://uwaterloo.ca/canadian-index-wellbeing/sites/ca.canadian-index-wellbeing/files/uploads/files/seniors_and_housing-the_challenge_ahead.pdf.
- Fox, S., Kenny, L., Day, M. R., O'Connell, C., Finnerty, J., & Timmons, S. (2017). Exploring the housing needs of older people in standard and sheltered social housing. *Gerontology & Geriatric Medicine*, *3*, 2333721417702349. <https://doi.org/10.1177/2333721417702349>
- Gibler, K. M. (2003). Aging subsidized housing residents: A growing problem in US cities. *The Journal of Real Estate Research*, *25*(4), 395–420.
- Gonyea, J. G., Curley, A., Melekis, K., & Lee, Y. (2018). Perceptions of neighborhood safety and depressive symptoms among older minority urban subsidized housing residents: The mediating effect of sense of community belonging. *Aging & Mental Health*, *22*(12), 1564–1569. <https://doi.org/10.1080/13607863.2017.1383970>
- Gonyea, J. G., Curley, A., Melekis, K., Levine, N., & Lee, Y. (2018). Loneliness and depression among older adults in urbanized subsidized housing. *Journal of Aging and Health*, *30*(3), 458–474. <https://doi.org/10.1177/0898264316682908>
- Government of Canada. (2017). *Canada's national housing strategy*. Retrieved 21 October 2021 from <https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/placetocallhome/pdfs/canada-national-housing-strategy.pdf>.
- Government of Canada. (2019). *Report on housing needs for seniors* (Cat. No.: EM12-61/2019E-PDF). Retrieved 8 January 2021 from <https://www.canada.ca/en/employment-social-development/corporate/seniors/forum/report-seniors-housing-needs.html#h2.8>.
- Gusmano, M. K., Rodwin, V. G., & Weisz, D. (2018). Aging & health medicare beneficiaries living in housing with supportive services experienced lower hospital use than others. *Health Affairs*, *37*(10), 1562–1569. <https://doi.org/10.1377/hlthaff.2018.0070>
- Harris, S. S., Soteriades, E., Coolidge, J. A. S., Mudgal, S., & Dawson-Hughes, B. (2000). Vitamin D insufficiency and hyperparathyroidism in a low income, multiracial, elderly population. *Journal of Clinical Endocrinology and Metabolism*, *85*(11), 4125–4130. <https://doi.org/10.1210/jc.85.11.4125>
- Heumann, L. (1988). Assisting the frail elderly living in subsidized housing for the independent elderly: A profile of management and its support priorities. *The Gerontologist*, *28*(5), 625–631.
- Hobbs, F. B., & Damon, B. L. (1996). 65+ in the United States (P23-190). U.S. Census Bureau. Retrieved 8 January 2021 from <https://www2.census.gov/library/publications/1996/demographics/p23-190.pdf>.
- Housing Services Corporation. (2012). *Social housing end dates in Ontario: Assessing impact and promoting good practice*. Retrieved 8 January 2021 from <https://www.hscorp.ca/wp-content/uploads/2013/03/Social-Housing-End-Dates-in-Ontario-HSC.pdf>.
- Housing Services Corporation. (2014). *Social and affordable housing primer*. Retrieved 8 January 2021 from <https://share.hscorp.ca/files/d/>.
- Jacobs, R. H. (1969). Friendship club: A case study of the segregated aged. *The Gerontologist*, *9*(1), 276–280.
- Joint Center for Housing Studies. (2018). *Housing America's older adults 2018*. Retrieved 8 January 2021 from https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Housing_Americas_Older_Adults_2018_1.pdf.
- Joint Center for Housing Studies. (2019). *Housing America's older adults 2019*. Retrieved 8 January 2021 from https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Housing_Americas_Older_Adults_2019.pdf.
- Joint Center for Housing Studies. (2020). *Accessibility features for older households in subsidized housing*. Retrieved 8 January 2021 from https://www.jchs.harvard.edu/sites/default/files/harvard_jchs_aging_in_subsidized_housing_airgood-obrycki%20molinsky_2020.pdf.
- Kodner, D. L., & Spreeuwenberg, C. (2002). Integrated care: Meaning, logic, applications, and implications – A discussion paper. *International Journal of Integrated Care*, *2*(4), e12. <http://doi.org/10.5334/ijic.67>
- Krieger, J., & Higgins, J. (2002). Housing and health: Time again for public health action. *American Journal of Public Health*, *92*(5), 758–768.
- Lawton, M. P., & Yaffe, S. (1980). Victimization and fear of crime in elderly public housing tenants. *Journal of Gerontology*, *35*(5), 768–779. <https://doi.org/10.1093/geronj/35.5.768>
- Lo, O. Y., Conboy, L. A., Rukhadze, A., Georgetti, C., Gagnon, M. M., Manor, B., et al. (2018). In the eyes of those who were randomized: Perceptions of disadvantaged older adults in a Tai Chi trial. *The Gerontologist*, *60*, 672–682. <https://doi.org/10.1093/geront/gny165>
- Locke, G., Lam, K., Henry, M., Brown, S., & Abt Associates. (2011). *End of participation in assisted housing: What can we learn about aging in place?* Retrieved 8 January 2021 from https://www.huduser.gov/publications/pdf/Locke_AgingInPlace_AssistedHousingRCR03.pdf.
- Lucio, J., & McFadden, E. (2017). Leveraging resilience: Evidence from the management of senior low-income housing. *The American Review of Public Administration*, *47*(6), 661–671. <https://doi.org/10.1177/0275074015616868>
- McCunn, L., & Gifford, R. (2014). Accessibility and aging in place in subsidized housing. *Seniors Housing and Care Journal*, *22*(1), 18–29.
- Morris, A. (2015). The residualisation of public housing and its impact on older tenants in inner-city Sydney, Australia. *Journal of Sociology*, *51*(2), 154–169. <https://doi.org/10.1177/1440783313500856>
- Munn, Z., Peters, M. D. J., Stern, C., Tufaranu, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*, 143. <https://doi.org/10.1186/s12874-018-0611-x>
- National Low Income Housing Coalition. (2016). *The long wait for a home. Housing spotlight 61*. Retrieved 8 January 2021 from https://nlihc.org/sites/default/files/HousingSpotlight_6-1.pdf.
- Noonan, D., Hartman, A. M., Briggs, J., & Biederman, D. J. (2017). Collaborating with public housing residents and staff to improve health: A mixed-methods analysis. *Journal of Community Health Nursing*, *34*(4), 203–213. <https://doi.org/10.1080/07370016.2017.1369810>

- Normoyle, J. B. (1987). Fear of crime and satisfaction among elderly public housing residents: The impact of residential segregation. *Basic and Applied Social Psychology*, *8*(3), 193–207. https://doi.org/10.1207/s15324834baspp0803_2
- Office of the Commissioner of Housing Equity. (2019). *2019 annual report*. Retrieved 21 October 2021 from <https://oche.ca/sites/default/files/inline-files/Annual%20Report%202019.pdf>.
- Ontario Non-Profit Housing Association. (2015). *Strengthening social housing communities: Helping vulnerable tenants maintain successful tenancies*. Retrieved 8 January 2021 from https://onpha.on.ca/Content/PolicyAndResearch/Other_Research/Stengthening%20social%20housing%20communities.aspx.
- Ontario Non-Profit Housing Association. (2016a). *2016 waiting list survey report*. Retrieved 8 January 2021 from https://onpha.on.ca/Content/Advocacy_and_research/Research/2016_Waiting_Lists_Survey.aspx.
- Ontario Non-Profit Housing Association. (2016b). *Aging in place in social housing*. Retrieved 8 January 2021 from <https://www.ighhub.org/sites/default/files/FocusON%2520Aging%2520in%2520place%2520in%2520social%2520housing.pdf>.
- Park, S., Cho, J., & Chen, Y.-C. (2019). Subsidized housing and geographic accessibility to neighborhood resources for low-income older people: From later year social exclusion perspective. *Geoforum*, *106*, 297–304. <https://doi.org/10.1016/j.geoforum.2019.09.002>
- Parton, H. B., Greene, R., Flatley, A. M., Viswanathan, N., Wilensky, L., Berman, J., et al. (2012). Health of older adults in New York City public housing: Part 2, findings from the New York City housing authority senior survey. *Care Management Journals*, *13*(4), 213–226.
- Pater, K. S., Agimi, Y., & Albert, S. M. (2014). Using a pharmacy student model to review prescription medication use among older adults living in low-income seniors housing. *Seniors Housing and Care Journal*, *22*(1), 30–42.
- Rabins, P. V., Black, B., German, P., Roca, R., McGuire, M., Grant, L., et al. (1996). The prevalence of psychiatric disorders in elderly residents of public housing. *Journals of Gerontology Series A: Biological Sciences & Medical Sciences*, *51A*(6), M319–M324.
- Rabins, P. V., Black, B. S., Roca, R., German, P., McGuire, M., Robbins, B., et al. (2000). Effectiveness of a nurse-based outreach program for identifying and treating psychiatric illness in the elderly. *JAMA: Journal of the American Medical Association*, *283*(21), 2802–2809.
- Redfoot, D. L., & Kochera, A. (2004). Targeting services to those most at risk: Characteristics of residents in federally subsidized housing. *Journal of Housing for the Elderly*, *18*(3/4), 137–163.
- Robbins, B., Rye, R., German, P. S., Tlasek-Wolfson, M., Penrod, J., Rabins, P. V., et al. (2000). The psychogeriatric assessment and treatment in city housing (patch) program for elders with mental illness in public housing: Getting through the crack in the door. *Archives of Psychiatric Nursing*, *14*(4), 163–172. <https://doi.org/10.1053/apnu.2000.8653>
- Robison, J., Schensul, J. J., Coman, E., Diefenbach, G. J., Radda, K. E., Gaztam-bide, S., et al. (2009). Mental health in senior housing: Racial/ethnic patterns and correlates of major depressive disorder. *Aging & Mental Health*, *13*(5), 659–673. <https://doi.org/10.1080/13607860802607298>
- Sanders, A., Stone, R., Meador, R., & Parker, V. (2010). Aging in place partnerships: A training program for family caregivers of residents living in affordable senior housing. *Citiescape: A Journal of Policy Development and Research*, *12*(2), 85–104.
- Schulman, A. J. (1996). Service coordination: Program development and initial findings. *Journal of Long Term Home Health Care: The PRIDE Institute Journal*, *15*(2), 5–12.
- Seo, Y. K., & Mazumdar, S. (2011). Feeling at home: Korean Americans in senior public housing. *Journal of Aging Studies*, *25*(3), 233–242. <https://doi.org/10.1016/j.jaging.2011.03.008>
- Sheehan, N. W. (1986a). Aging of tenants: Termination policy in public senior housing. *The Gerontologist*, *26*(5), 505–509.
- Sheehan, N. W. (1986b). Informal support among the elderly in public senior housing. *The Gerontologist*, *26*(2), 171–175.
- Sheehan, N. W. (1996). Management issues in service coordination: The experience of the resident services coordinator program. *Journal of Gerontological Social Work*, *26*(1/2), 71–86.
- Sheehan, N. W. (1999). The resident services coordinator program. *Journal of Housing for the Elderly*, *13*(1–2), 35–49.
- Sheehan, N. W., & Guzzardo, M. T. (2008). Resident service coordinators: Roles and challenges in senior housing. *Journal of Housing for the Elderly*, *22*(3), 240–261. <https://doi.org/10.1080/02763890802232071>
- Sheehan, N. W., & Wisensale, S. K. (1991). “Aging in place”: Discharge policies and procedures concerning frailty among senior housing tenants. *Journal of Gerontological Social Work*, *16*(1/2), 109–123.
- Smith Black, B., Rabins, P. V., & German, P. S. (1999). Predictors of nursing home placement among elderly public housing residents. *The Gerontologist*, *39*(5), 559–568. <http://doi.org/10.1093/geront/39.5.559>
- Smith, G. C., & Sylvestre, G. M. (2008). Effects of neighbourhood and individual change on the personal outcomes of recent movers to low-income senior housing. *Research on Aging*, *30*(5), 592–617. <https://doi.org/10.1177/0164027508319655>
- Smith, G. C., Sylvestre, G. M., & Ramsay, H. A. (2002). Local social and service environments of an urban housing market for seniors. *Housing and Society*, *29*(1–2), 23–44.
- Soderlind, S. (1989). Weaving a safety net. *Geriatric Nursing*, *10*(4), 187–189.
- Suggs, P. K., Stephens, V., & Kivett, V. R. (1986). Coming, going and remaining in public housing: How do the elderly fare? *Journal of Housing for the Elderly*, *4*(1), 87–104.
- Taylor, H. O., Wang, Y., & Morrow-Howell, N. (2018). Loneliness in senior housing communities. *Journal of Gerontological Social Work*, *61*(6), 623–639. <https://doi.org/10.1080/01634372.2018.1478352>
- Tricco, A. C., Lillie, E., Zarin, W., O’Brien, K. K., Colquhoun, H., Levac, D., et al. (2018). PRISMA extension for scoping reviews (PRISMA-SCR): Checklist and explanation. *Annals of Internal Medicine*, *169*(7), 467–473. <https://doi.org/10.7326/M18-0850>
- U.S. Department of Housing and Urban Development. (2018). *Picture of subsidized households*. Retrieved 21 October 2021 from <https://www.huduser.gov/portal/datasets/assths.html>.
- Vincent, G. K., & Velkoff, V. A. (2010). *The older population in the United States: 2010 to 2050* (P25-1138). U.S. Census Bureau. Retrieved 8 January 2021 from <https://www.census.gov/content/dam/Census/library/publications/2010/demo/p25-1138.pdf>.
- Wee, L. E., Tsang, T. Y. Y., Yi, H., Toh, S. A., Lee, G. L., Yee, J., et al. (2019). Loneliness amongst low-socioeconomic status elderly Singaporeans and its association with perceptions of the neighbourhood environment. *International Journal of Environmental Research & Public Health*, *16*(6), 18. <https://doi.org/10.3390/ijerph16060967>
- Weinberger, M., Darnell, J. C., & Tierney, W. M. (1986). Self-rated health as a predictor of hospital admission and nursing home placement in elderly public housing tenants. *American Journal of Public Health*, *76*(4), 457–459.
- Yaggy, S. D., Michener, J. L., Yaggy, D., Champagne, M. T., Silberberg, M., Lyn, M., et al. (2006). Just for us: An academic medical center-community partnership to maintain the health of a frail low-income senior population. *The Gerontologist*, *46*(2), 271–276. <https://doi.org/10.1093/geront/46.2.271>
- Yoo, S., Butler, J., Elias, T. I., & Goodman, R. M. (2009). The 6-step model community empowerment: Revisited in public housing communities for low-income senior citizens. *Health Promotion Practice*, *10*(2), 262–275. <https://doi.org/10.1177/1524839907307884>