Urban Planning
Open Access Journal | ISSN: 2183-7635
Volume 4, Issue 2 (2019)

The City, Aging and Urban Planning

Editors

Matthias Drilling and Fabian Neuhaus

COGITATIO

Urban Planning, 2019, Volume 4, Issue 2
The City, Aging and Urban Planning

Published by Cogitatio Press
Rua Fialho de Almeida 14, 2º Esq.,
1070-129 Lisbon
Portugal

Available online at: www.cogitatiopress.com/urbanplanning

Table of Contents

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 1–4
DOI: 10.17645/up.v4i2.2185

Editorial

The Fragile Body in the Functional City: An Editorial

Matthias Drilling [1,*] and Fabian Neuhaus [2]

[1] School of Social Work, University of Applied Sciences and Arts Northwestern Switzerland, 4132 Muttenz, Switzerland; E-Mail: matthias.drilling@fhnw.ch
[2] School of Architecture, Planning and Landscape, University of Calgary, Calgary, T2N 1N4, Canada; E-Mail: fabian.neuhaus@ucalgary.ca

* Corresponding author

Submitted: 8 April 2019 | Published: 18 June 2019

Abstract
Changing circumstances force planning to re-define its role as a driving function shaping our cities today. One of the significant challenges to the century-old tradition of planning comes from the ageing population. The demand to age in place and its associated conditions particularly require renewed attention. This is, however, not an isolated and partisan topic, but speaks to the changing circumstances and highlights the dramatic shortcoming of a performance-oriented and segregation-of-function-driven approach; one that is remnant of the early days of the planning discipline, but is still very much alive today. What has the discussion around ageing and the city brought up, and where are we headed? Two significant aspects are the body and moving away from a performance-oriented interpretation thereof, as well as a rethinking of participation not just as an information exercise, but as a co-design practice.

Keywords
agency; ageing; ageing in place; planning; social work; urban design

Issue
This editorial is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction: Technologies

Extensive change is underway that is transforming the state-society relationship. This is highly visible in the politics of democracies around the world but, simultaneously, in the everyday lives of individuals on the streets. These shifts do not play out on a single scale but criss-cross the network of urban centres and simultaneously touch on territories and people's lives in a multitude of ways. Planning as both a scientific activity and a practice is enveloped in this shift. Madanipour, Hull, and Healey (2001, p. 25) argue that planning "has to define its role, as well as its area of engagement to be distinctive from those of other actors. The pressure is such that if it does not, it could either be dissolved or become marginalised." Their analysis focuses specifically on governance, place, and territory. The shift, however, also includes citizens whom, as part of the change, have been transformed into a much more sophisticated populace, concerned with sustainability, the environment, and accessibility. This leads to an increased demand for better services and more participation. At the same time, the population is less responsive to traditional forms of social coherence and control. As part of these transformations, excluded groups have found a stronger platform within these changes to advocate for their needs. In the city, as a generational project, the ageing population plays a key role and the question of how to better serve their changing needs is pressing. But how does the built environment respond to the needs of an ageing population? Can planning, while being under pressure and searching for an identity, respond to a call for increased spatial referencing and engaging participation?

Technology is a big part of planning in many ways, not least because planning itself can be considered a technology. The functional city (van Es et al., 2014) rebranded

the city as a high-tech apparatus to try and lift it out of what was considered a chaotic state (Hall, 1988). The city as an arrangement was then to be considered under pure aspects of logic and truth, universal truth. The implemented conceptual structure was based on hierarchy and sequential order as a top-down structure. The heavy focus on mechanic and machine analogies produced an image of a functioning city in the sense of an apparatus.

The same attitude was applied to the needs and requirements of the city's inhabitants. The ergonomic movement (Nussbaumer, 2014) delivered the requirements based on the mechanics of the human body. As Siegfried Giedion writes in his essay, "The Assembly Line and Scientific Management" (Giedion, 2007, p. 98), the ability, functioning, and performance of the human body in relation to its environment became the key to participation. To be part of a functioning city, citizens were required to be in possession of a functioning body.

Initially, overall performance was mainly important during the planning stage of the functional city. Facts in the form of numbers were used to direct development and design efforts. This quickly started to spread to the operation and claimed functions of the city. Performance criteria analysis of existing cities and working parts of the city became a trade of planners. Ultimately, the built environment came down to the abstract format of numbers, good numbers and bad numbers. Caught in the middle were, and still are, citizens. The belief that the city can be optimized and streamlined through analysis is more prevalent today than ever.

There was critical turn in urban planning after observing the large number of elderly people who were highly affected by exclusion processes. Scholars have collected data on two scales: on the city as a collection of individual status (finances, contacts, health, etc.), and on the city as a stage on which collective exclusion processes become visible (for example, when older people are driven out of places by younger groups). Studies that focus on the life situation of the elderly emphasise that exclusion processes at that stage of life are, above all, accompanied by a loss of independence and freedom. By withdrawing from the labour market, older people are suddenly dependent on standardised services, the quantity and quality of which are determined first and foremost by the state: transfers (especially old-age pensions and additional benefits), public transport, housing, and living environments. Older people with a low level of education and therefore low previous earnings, sick people, and widowed pensioners, in particular, are affected by those exclusion processes and these effects intensify when the neighbourhood in which these people live is itself considered to be disadvantaged. Buffel, Phillipson, and Scharf (2013) identified predictors of exclusion risks in old age in relation to the urban scale: (1) the duration of living in the neighbourhood and in the apartment since retirement, (2) trust in supportive neighbourhood relationships, (3) the frequency of relocation in the course of one's own life, and (4) the emotional ties to the neighbourhood. Older people should never withdraw from their living environment, as it results in a life that is concentrated on the home. In old age, this can be very difficult to reverse, thus negatively affecting the quality of life in the long term. In this respect, exclusion processes for older people have direct (for example, relocation due to displacement, lack of sense of security) or indirect (withdrawal into one's own home) socio-spatial consequences.

2. Perceptions

The city is, therefore, neither a functionalistic container (for example, a neighbourhood, a housing estate, a flat) where seniors live, nor is it a technical complication requiring sophisticated performance tools (as provided by the age-appropriate design of buildings, streets, spaces). Urban space forms and shapes itself along perceptions and attributions, filled with meanings that can run transversely to objective concepts such as life situations, milieus, or age groups: "Places are the context in which we live, settings, to which we feel attached but which also shape our experience of social processes, such as the provision of health care, the process of ageing, or social and economic restructuring." (Wiles, 2005, p. 101)

These different understandings led to the conclusion that dwelling is, above all, socially constructed: "The application of the theory of social space provides illuminating perspectives of how daily life is practised by older people as well as the meaning the space represents." (Wiles, 2005, p. 837) Petersen and Warburton (2012) describe old-age residences as places of segregation and ageism. In their study, they focused on how professional actors conceive of representations of space in the planning process of such complexes. They found that the ageing person: (1) is constructed according to his or her need for help, (2) does not appear in the process of planning, (3) is favoured as a single person, (4) is marketable, and (5) is homogenised by the absence of any differentiation. "Although many professional stakeholders show respect for older people, their work knowledge is made up of assumptions, generalisations, and commonplace euphemisms." (Petersen & Warburton, 2012, p. 80)

In this context, Rudzitis (1984) refers to the emergence of "geriatric ghettos" in cities. His leading question about "how and why society and its institutions are organized in the way they are" led him to the thesis that these ghetto formations were driven primarily by the construction of inner-city seniors' homes and social housing, and that this resulted in older people remaining behind: the spatial concentration of the older population, mostly disguised as a voluntary decision, was nothing but a perfidious form of exclusion. Restricted mobility, coupled with the few existing social infrastructures on site, the fear of crime, and the low social capital in the neighbourhoods, perpetuated the processes of segregation. Rowles (1978) posed a similar argument in *Prisoners of Space*, in which he examined the housing situation of older people and focused on their everyday practice. Basic elements of the

life-world of elderly people, including the physical limitations and associated radius of action ("action"), the images of the living environment designed by the elderly themselves ("mental maps/orientation"), the emotions associated with the neighbourhood ("feelings"), as well as the belief that everything could be different from what an old person can imagine at the moment ("fantasy") all led to a spatial consolidation of elderly people with increasing age. This is significant since negative restrictions are increasingly less compensable with satisfaction in one's "own four walls" (Golant, 1982).

3. Should Planning Remain Neutral?

Living cannot be limited to its functional character of providing accommodation. Rather, it is the attribution of meaning to housing in the context of individual and collective perceptions and expectations, as well as the relevance of these in the context of generational relationships and concrete artefacts of housing (seniors' homes, housing estates, neighbourhoods), that enables us to distinguish between inclusive and exclusive effects of planning measures.

By remaining ambiguous about these details, planning does not commit to specifics in order to accommodate these needs. Furthermore, planning addresses specialists with this sort of language, experts who are ready to interpret "accessible" not in a broad, but in a very specific sense. At this level, overall planning remains neutral to the demand for age-appropriate environments. The message that comes across is that by building "good" cities, planning caters to everybody. Of course, "good" cities are contested, just like planning as a discipline is contested. Urban development as a money-making machine requires planning to enable these activities. It makes a distinction between the free market as a capitalist system and state intervention. This was, for example, discussed by David Harvey as a conflict over "production, management and use of the urban built environment." (Harvey, 1976, p. 265) Capitalism both demands and rejects state intervention. Campbell, Fainstein, and Foglesong (2003) point out that "the market system cannot meet the consumption needs of the working class in a manner capable of maintaining capitalism." This leads to a division between individualised planning by the market and collective planning through the state. However, the main subject of planning, in a physical sense, is the land. Harvey (2009, p. 157) describes it as "uniqueness of land as a commodity," highlighting the fact that it is not transportable nor is it infinite or transferable. There is only one land to plan for. To serve both sides, the market and the state, planning remains ambiguous.

4. Conclusion: Where to Go

What we are seeing in current practices is that planning has not let go of the functional focus on how cities are conceived. The current driving parameter is performance and its implied increase and optimisation are barriers to age-friendly cities and ageing in place more specifically. Much of the discussion still builds around the notion of performance. The current discussion still asks for "walkable neighbourhoods", "good street design", "effective urban spaces", "public-oriented plazas", or even "healthy cities".

This is an issue for the ageing population in particular, as outlined in the discussion above. Care homes are only a solution in some cases, but across the board, people want to remain at home for as long as possible and be actively engaged in their communities. This represents the most substantial challenge to the urban planning practice, something that other pressing topics over the past century, such as poverty, housing, race and gender discussion, or homelessness have not managed to achieve.

Cities are very slow-transforming artefacts and change will not happen overnight unless it is shared, unless activism and collective participation push an agenda for change. Two topics discussed previously, as suggested by Buse, Nettleton, Martin, and Twigg (2017, p. 8), can help push for change in approaches to the body by moving away from performance towards inclusion and secondly by shifting from a provision of service to co-creation and participative design. Performance has to be secondary; the primary goal of planning has to be getting together, sharing, and co-creating. There are emerging practices in planning and urban theory. In her work, Oldfield (2018), for example, reflects on how to build urban theory as a collective practice (Oldfield, 2018, p. 229). Her work includes scholars, planners, and communities. Fuchs (2010, p. 42) has presented some ideas for a foundation, more specifically in relation to PCSIS (participatory, cooperative, sustainable information society), by insisting on a dialectic system. The challenge that an ageing population poses for planning and our cities, in general, should be a welcome one. In addition to all of the benefits in regard to physical infrastructure accessibility, inclusion, and marginalisation, this has the potential to refocus the discipline and open up a new avenue of cross-cutting dialogue that instils a new identity, a shared identity.

Acknowledgments

Many of the arguments in this article have arisen in the context of the COST Action CA15122 ROSEnet, supported by COST (European Cooperation in Science and Technology). The authors thank their colleagues for the fruitful discussions.

Conflict of Interests

The authors declare no conflict of interests.

References

Buffel, T., Phillipson, C., & Scharf, T. (2013). Experiences of neighbourhood exclusion and inclusion among

older people living in deprived inner-city areas in Belgium and England. *Ageing & Society*, *33*, 89–109.
Buse, C., Nettleton, S., Martin, D., & Twigg, J. (2017). Imagined bodies: Architects and their constructions of later life. *Ageing & Society*, *37*(7), 1435–1457.
Campbell, S., Fainstein, S. S., & Foglesong, R. (2003). Planning the capitalist city. In S. Fainstein (Ed.), *Readings in planning theory* (2nd ed., pp. 102–107). Malden, MA: Blackwell Publishers.
Fuchs, C. (2010). Theoretical foundations of defining the participatory, co-operative, sustainable information society. *Information, Communication & Society*, *13*(1), 23–47.
Giedion, S. (2007). The assembly line and scientific management. In W. W. Braham, J. A. Hale, & J. S. Sadar (Eds.), *Rethinking technology: A reader in architectural theory* (pp. 83–112). London: Routledge, Taylor & Francis Group.
Golant, S. M. (1982). Individual differences underlying the dwelling satisfaction of the elderly. *Journal of Social Issues*, *38*, 121–134.
Hall, P. (1988). *Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century*. Oxford: Basil Blackwell.
Harvey, D. (1976). Labor, capital, and class struggle around the built environment in advanced capitalist societies. *Politics & Society*, *6*(3), 265–295.
Harvey, D. (2009). *Social justice and the city*. Athens, GA: University of Georgia Press.
Madanipour, A., Hull, A., & Healey, P. (2001). Introduction. In A. Hull & A. Madanipour (Eds.), *The Governance of place: Space and planning processes* (pp. 1–15). Aldershot: Ashgate.
Nussbaumer, L. L. (2014). *Human factors in the built environment*. New York, NY: Fairchild Books.
Oldfield, S. (2018). In everyday city struggles: Collaborative research and its inspirations. In M. Grubbauer & K. Shaw (Eds.), *Across theory and practice: Thinking through urban research* (pp. 223–230). Berlin: Jovis Verlag.
Petersen, M., & Warburton, J. (2012). Residential complexes in Queensland, Australia: A space of segregation and ageism? *Ageing & Society*, *32*, 60–84.
Rowles, G. D. (1978). *Prisoners of space? Exploring the geographical experience of older people*. Boulde: Westview Press.
Rudzitis, G. (1984). Geographical research and gerontology. An overview. *Gerontologist*, *24*(5), 536–542.
Van Es, E., Harbusch, G., Maurer, B., Pérez, M., Somer, K., & Weiss, D. (Eds.). (2014). *Atlas of the functional city: CIAM 4 and comparative urban analysis*. Bussum: THOTH Publishers, gta Verlag.
Wiles, J. (2005). Conceptualizing place in the care of older people: The contributions of geographical gerontology. *International Journal of Older People Nursing*, *14*(8), 100–108.

About the Authors

Matthias Drilling is Head of the Institute for Social Planning, Organizational Change and Urban Development at the School of Social Work, University of Applied Sciences and Arts Northwestern Switzerland. His research focuses on the future of cities and urban neighbourhoods, social sustainability, urban governance, and democratic and empowering approaches. He is a Management Committee Member of the EU-COST Action "Reducing Old-Age Social Exclusion: Collaborations in Research & Policy" (CA 15122).

Fabian Neuhaus is Assistant Professor in Planning at the School of Architecture, Planning and Landscape, University of Calgary. He has received his PhD in urban planning from UCL. His research interests are temporal aspects of the urban environment. His research focuses on the topics of Habitus, Type, and Ornament in the sense of Activity, Technology, and Memory. He has worked with architecture, planning, and urban design practices in the UK and Switzerland as well as on research projects at universities in Switzerland, Germany, the UK, and Canada. He is the principal author at www.urbantick.org.

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 5–17
DOI: 10.17645/up.v4i2.1831

Article

The Attractiveness of a City-Centre Shopping Environment: Older Consumers' Perspective

Anna-Maija Kohijoki [1,*] and Katri Koistinen [2]

[1] Department of Marketing and International Business, Turku School of Economics, University of Turku, 20014 Turku, Finland; E-Mail: anna-maija.kohijoki@utu.fi
[2] Centre for Consumer Society Research, Faculty of Social Sciences, University of Helsinki, 00014 Helsinki, Finland; E-Mail: katri.koistinen@helsinki.fi

* Corresponding author

Submitted: 16 November 2018 | Accepted: 18 February 2019 | Published: 18 June 2019

Abstract
Older consumers represent an increasingly significant customer segment for city-centre retailers. However, many intra-urban centres are struggling to maintain an attractive shopping environment. This article focuses on older consumers' (Finns, aged 64+) perceptions of the city centre with an emphasis on design and ambient elements in the external shopping environment. Using the focus-group research method, the aim is to identify what kind of elements these are and how they constitute an attractive city-centre shopping environment for older consumers. Findings from a qualitative content analysis show that an attractive city-centre shopping environment provides convenience and safety when moving around and running errands, functional and aesthetic lighting to cope with shopping, proper furnishings regarding places to rest, harmonious building architecture integrated with refreshing urban nature, and the cleanliness of the streetscape. Findings indicate that a city-centre shopping environment offers more to older consumers than a context of satisfying consumption needs. City shopping gives a reason to go outdoors and maintain social contacts. The study has implications for creating an age-friendly city centre, the shopping environment which supports older consumers' active and independent lives.

Keywords
attractive city; city centre; external shopping environment; older consumer; perception

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

The declining vitality in many Western city centres has become a burning issue. The increased competition from off-centre retailing and e-commerce has put pressure on intra-urban centres to maintain their attractiveness as shopping environments (e.g., Parker, Ntounis, Millington, Quin, & Castillo-Villar, 2017; Wrigley & Lambiri, 2015). To stay vital, city centres need to exhibit adaptive resilience by providing a differentiated offer and physical characteristics compared to its competitors (Teller, Wood, & Floh, 2016). As a reaction, urban-development projects have been implemented, aimed at improving the functionality and aesthetics of the city centre (De Nisco & Warnaby, 2014). As there is evidence that the physical environment influences patronage behaviour (e.g., Donovan & Rossiter, 1982; Teller & Reutterer, 2008; Turley & Milliman, 2000), in urban-revitalisation projects, more emphasis should put on consumers' perceptions of the shopping environment (De Nisco & Warnaby, 2013; Hart, Stachow, & Cadogan, 2013).

Population ageing should also be taken into account in urban-development projects with regards to catering to the increasing number of older shoppers. By the year 2030, the old-age dependency ratio (the number of 64+ people vs the number of 15- to 64-year-olds) in

the EU has been estimated to rise from the current 29% to 39% (Eurostat Database, 2018). Although city centres are essential destinations for older shoppers (Bromley & Thomas, 2002; Wrigley & Lambiri, 2015), their perceptions have been overlooked, the emphasis being on younger consumers. Contrary to recent evidence, older consumers have been considered as a homogeneous group outside the mainstream consumption (Kohijoki & Marjanen, 2013; Myers & Lumbers, 2008). To create an age-friendly shopping environment, Western cities will have to adjust to the diverse needs and wants of their ageing customers (Buffel, Phillipson, & Scharf, 2012).

This study focuses on older consumers' (aged 64+) perceptions of the city centre as a shopping environment. Based on the typologies of the retail environment elements (e.g., Baker, 1986; De Nisco & Warnaby, 2013), the study contributes to current knowledge by focusing on the tangible elements in the external shopping environment. It has been shown that the physical environment plays a major role in enabling older consumers to cope with their shopping (Buffel et al., 2012; Kohijoki, 2011). However, the retail-oriented outdoor space has not gained as much attention in consumer-related research as the internal store environment (e.g., Hart et al., 2013). Through qualitative content analysis of the focus-group discussions, the study explores the contents and meanings of older consumers' perceptions related to the design (functional and aesthetic) and ambient (i.e., atmospherics) elements in the city-centre shopping environment. The aim is to identify what kind of elements these are and how they constitute an attractive city-centre shopping environment for older consumers. The study deepens the understanding of older city shoppers and endeavours to find the means to create an age-friendly city centre that caters to older consumers' needs and provides shopping experiences which differ positively from those in competing retail environments.

2. Effect of the Physical Shopping Environment on Consumers

A physical shopping environment (see Figure 1) comprises the internal store environment and the external shopping environment (e.g., shopping streets and markets), with a vaguely bordered transitional zone (e.g., street terraces) (Baker, 1986; Underhill, 1999). Both environments constitute the tangible and intangible elements, which have been found to influence consumers' perceptions. The tangibles include ambient elements such as sounds and lighting, and design elements including layout, convenience (e.g., moving around, wayfinding) and architecture (Baker, Grewal, & Parasuraman, 1994; De Nisco & Warnaby, 2013). Tangibles provide the physical context of the intangibles, which refer to the social interaction within the environment (Bitner, 1992; Hart et al., 2013). Being measurable, observable, or manufactured, tangibles offer concrete means to enhance the attractiveness of the shopping environment (Baker, 1986; Rosenbaum & Massiah, 2011).

The influence of environmental elements in consumers' perceptions of a store has been widely recognised (e.g., Baker et al., 1994; Teller & Reutterer, 2008; Turley & Milliman, 2000), and retailers have aimed at controlling the internal elements, background music, for instance, to increase overall attractiveness or target the customer segment they prefer (willingness to linger/revisit). The external elements have not gained as much attention in retailing research (De Nisco & Warnaby, 2013). It has been argued that consumers' perceptions are much difficult to understand and control

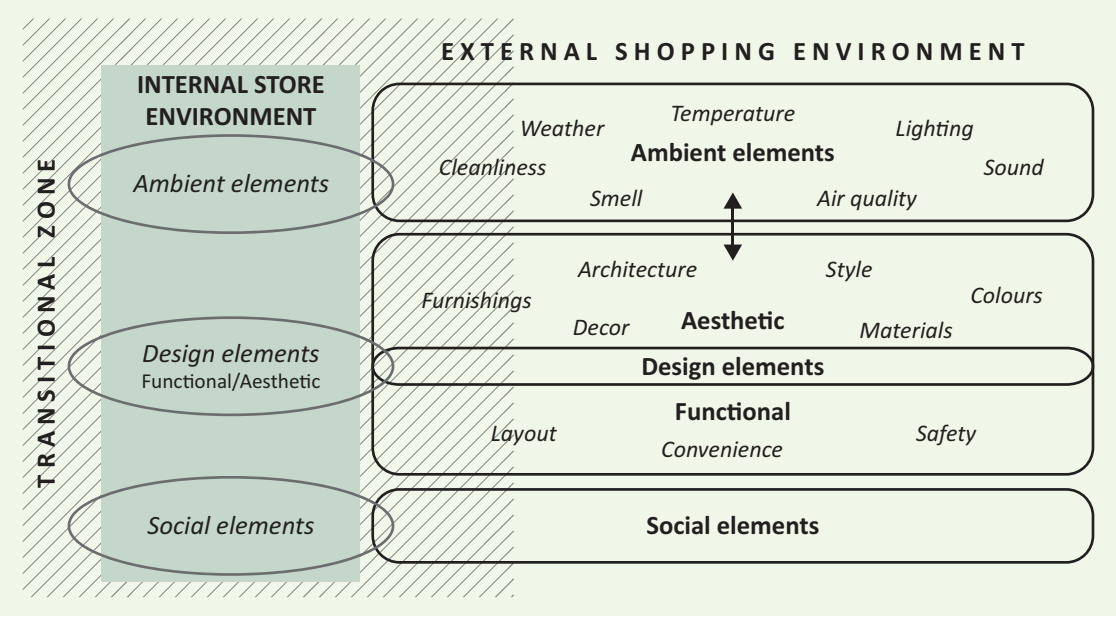


Figure 1. The external elements in the physical shopping environment.

in evolved shopping environments, such as city centres, than in a created store environment (Hart et al., 2013). The externals are usually beyond the direct control of retailers. In recent years, however, generated by the public-private collaborated urban-development projects, academic studies on the external shopping environment have increased (e.g., De Nisco & Warnaby, 2013, 2014; Hart et al., 2013; Parker et al., 2017).

Several typologies of the retail environment elements have been constructed to analyse the effect of the physical shopping environment on consumers in a store and its immediate exterior (e.g., Baker, 1986; Bitner, 1992; Turley & Milliman, 2000). Recently, these typologies have been applied in the external shopping environment (e.g., De Nisco & Warnaby, 2013; Hart et al., 2013). The framework presented in Figure 1 is outlined based on the review of retailing literature (Kohijoki & Koistinen, 2018) to illustrate these somewhat overlapping typologies of ambient, design, and social elements and to specify the external, tangible elements that have been found to influence consumers.

The ambient elements, which have an effect on consumers' sensations, have been found to influence shopping enjoyment (Hart et al., 2013; Teller, 2008). Interesting sounds and smells, and a clean inner-city environment, for instance, are particularly attractive to consumers with experiential shopping motives (Dawson, Bloch, & Ridgway, 1990). Although occasionally unpleasant, the temperature, the air and smells, do not seem to have a significant effect on re-visiting or time spent in the shopping environment (Teller & Reutterer, 2008). However, poor weather is among the most frequently mentioned reasons for shopping indoors (Dellaert, Arentze, & Timmermans, 2008). Although the typologies separate ambient from design elements (e.g., Hart et al., 2013; see Figure 1), there is a link between them in that design elements can be used to control the ambience, and vice versa (e.g., the effect of lighting on safety).

The design elements have been further divided into aesthetic and functional elements (e.g., Baker, 1986; De Nisco & Warnaby, 2013; see Figure 1). Aesthetic design elements have been found to be an asset of a competitive intra-urban centre (Wrigley & Lambiri, 2015). The attractiveness of the buildings and store window displays (including architecture, style, colours, and decors) affect the consumers' willingness to stay and patronise (Bell, 1999; De Nisco & Warnaby, 2013). A visually appealing environment is particularly attractive to recreational shoppers who like to spend time in the shopping area (Reimers & Clulow, 2014). A functional urban layout (space arrangement) and convenience of moving around, parking, and use of public transportation have also appeared to influence patronage intentions and the willingness to linger (e.g., De Nisco & Warnaby, 2013; Wrigley & Lambiri, 2015). However, a cityscape with several vacant stores may arouse feelings of insecurity, in the evening in particular (Maronick, 2007; Wrigley & Lambiri, 2015). Although presented separately, the aesthetic and functional design elements overlap as some elements may have both functional and aesthetic effects (e.g., the effect of street surfacing on convenience).

These examples of the external elements are compiled from a variety of retailing studies conducted mostly quantitatively in Western societies (Europe, USA, and Australia) over the past decades (see Kohijoki & Koistinen, 2018). To get a deeper insight into the external elements, the qualitative approach should be utilised to identify what kind of elements these are and how they make the city centre attractive to present-day consumers. As the elements may be interconnected (see Figure 1), and as there may be contextual differences in perceptions (location, scale, time), elements should be investigated in one city centre. Attention should also be given to different consumer groups instead of "average" consumers.

There is a need for understanding the behaviour and perceptions of older city shoppers, the number of which is increasing. The functionality of the outdoor environment as a significant determinant of an age-friendly city has gained attention in ageing-related studies (e.g., Buffel et al., 2012). It has emphasised that physical obstacles in the pedestrian environment may decrease the potential of older people to engage in activities outside the home (Hovbrandt, Ståhl, Iwarsson, Horstmann, & Carlsson, 2007; Hunter et al., 2011). Older people's relationships with the shopping environment have gained increasing attention in consumer-related research, mostly considering the store environments. Findings on the external shopping environment have emphasised the effect of consumer ageing on the accessibility of services. Where city centres decline, older consumers, the carless, and the disabled in particular, have become disadvantaged with respect to their possibilities to access adequate services (Bromley & Thomas, 2002; Kohijoki, 2011). These examples show that the physical environment has a fundamental role in supporting older consumers to take care of their shopping independently. However, besides the functional elements, more emphasis should be placed on the aesthetics and ambience of the external shopping environment. It has been shown that in their shopping destination choices, older consumers have become increasingly recreational shoppers who appreciate not only barrier-free but also pleasant and stimulating shopping surroundings (Kohijoki & Marjanen, 2013; Myers & Lumbers, 2008). The current study stresses the importance of listening to older consumers and taking their thoughts into consideration in retail and urban planning to create an age-friendly city-centre shopping environment that caters to older city shoppers.

3. Methods

3.1. Research Area and Focus-Group Approach

The study was conducted in the city of Turku, which is the administrative and commercial centre of the third

largest urban region (population 325,000) in Finland. The old-age dependency ratio in the Turku region (32%) was higher than in other large urban regions, Tampere (30%) and Helsinki (25%), and it has been estimated to rise to 39% by 2030 (Official Statistics of Finland, 2018). Similar to many Western cities, the declining vitality of the Turku city centre has generated several urban-development projects (City of Turku, 2014).

The focus-group approach was chosen to collect in-depth information on city-centre shopping environment from older consumers' perspective. The method did not discriminate against people who were unable to fill in questionnaires (declining eyesight, hand disabilities) or who were not accustomed to using information technology. In a web-based survey conducted by the Turku city centre (Laukkanen, 2016), for example, the proportion of 64+ respondents (2%) was much lower than their actual share (19%) of the citizenship. Focus groups also encouraged those who were reluctant to be interviewed on their own to participate (Kitzinger, 1995). Having participants at a similar stage of life, like old-age pensioners in this study, also made it easier for them to discuss age-specific challenges, for example.

3.2. Recruitment of the Focus-Group Participants

In line with the recommended number and size of the groups (Krueger, 1988; Morgan, 1997), four focus-group discussions with 5 to 6 participants (a total of 2 men and 20 women) were organised in the autumn of 2016 (see Table 1). The participants were recruited on a volunteer basis through senior clubs, housing corporations, and the authors' networks. The authors had contact persons (member/host of a circle of friends/club/residence) who were guided to compile the groups, consisting of both men and women, from the communities they represented. The contact persons were informed of the predefined criteria for the volunteers to be accepted. Given the purpose of the study, the participants had to be aged 64+, live and do their shopping independently, and be familiar with the Turku city centre. However, they did not have to be frequent shoppers to get insights into the avoidance. Before the discussions, the authors ensured that these homogeneity criteria were met. Otherwise, the participants differed regarding background, which gave the desired variation among the participants to allow for contrasting views (cf. Krueger, 1988). However, it was easier to get women more involved in the discussions than men; two men even cancelled at the last minute. Regarding the ethicality, this research design did not include such interaction with the participants that would have required permission from the Ethics Committee of the University of Turku (2018).

3.3. Focus-Group Discussions

Both authors facilitated the discussions (average length of two hours): one was the moderator, and the other

Table 1. Background information on the focus-group participants.

Participants' relationship to each other	**Venue of the session**	**Gender**	**Year of birth**	**Household size**	**In/off-centre resident**	**House type** (based on address)	**Access to a car**
Friends who meet regularly	Private apartment; Kaarina (next town to Turku)	Woman	1952	one	off-centre	apartment	yes
		Woman	1950	two	off-centre	apartment	yes
		Woman	1949 (A)	one	off-centre	detached	yes
		Woman	1948 (A)	two	in-centre	apartment	yes
		Woman	1948 (B)	one	off-centre	apartment	no
Members of a senior citizens' club	Club premises; Turku	Woman	1949 (B)	two	off-centre	detached	yes
		Woman	1946	one	in-centre	apartment	yes
		Woman	1944 (A)	two	off-centre	terraced	yes
		Woman	1938	one	off-centre	apartment	no
		Woman	1937	one	in-centre	apartment	yes
		Woman	1935 (A)	one	in-centre	apartment	no
Members of a citizens' club	University premises, Turku	Woman	1951	two	off-centre	detached	yes
		Woman	1945	two	off-centre	apartment	yes
		Woman	1944 (B)	two	off-centre	terraced	yes
		Man	1944	two	off-centre	terraced	yes
		Woman	1936	two	off-centre	apartment	yes
Residents of a housing corporation	Housing-corporation premises, Turku	Man	1943	two	in-centre	apartment	yes
		Woman	1935 (B)	one	in-centre	apartment	no
		Woman	1934	one	in-centre	apartment	no
		Woman	1932	one	in-centre	apartment	no
		Woman	1923	one	in-centre	apartment	no
		Woman	1922	one	in-centre	apartment	no

made notes and ensured the recording. At the beginning of the discussions, the moderator described the purpose of the study, emphasised its confidentiality, and provided guidelines for the discussions. The discussions followed pre-formulated themes (see Table 2). After the short round of introductions, the participants described their typical shopping trip to the city centre and discussed how they are currently catered for. In the main section, participants gave their first impressions of the physical appearance of the city centre, and after that, the literature-based external elements (see Figure 1) were discussed one at a time. In addition to the current state, the proposals for improvements were discussed. After the free discussion, the participants filled in a brief questionnaire (font size larger than normal) of their background information (see Table 1). Overall, the discussions were successful. The participants discussed actively and raised issues spontaneously. The participants were pleased that the researchers and the city authorities are interested in their perceptions.

3.4. Analysis

The discussions were transcribed, and prior to the analysis, the identity of the participants was anonymised to maintain research confidentiality. The data were analysed by qualitative content analysis complying with deductive logic (e.g., Mayring, 2004; Tuomi & Sarajärvi, 2018). After thorough readings of the transcripts, the comments and proposals for improvements of the participants were systematically organised according to the external elements in the theoretical framework (Figure 1), and the contents and meaning of the comments were analysed. The comments were further divided in two concerning the positive/pleasant perceptions (attractiveness) and the negative/unpleasant perceptions (unattractiveness), respectively. This theory-based analysis continued with the composing of the summaries of the perceptions with respect to each element (cf. Krueger, 1988; Mayring, 2004). In this article, the participants' background information and typical shopping trip are described first, and then the summaries of the element-related perceptions and proposals are presented.

4. Findings

4.1. Focus-Group Participants

4.1.1. Background

The participants were 64 to 94 years old (the mean age 75) pensioners. Over half of them lived alone (see Table 1), which corresponded with the 64+ households in the Turku area (one-person households: 57%; cf. Official Statistics of Finland, 2018). Similar to the local level (70%), the majority of the participants, mostly in-centre residents, lived in apartments. All participants lived within eight kilometres of the Market Place, which they considered to be the heart of the city-centre shopping environment (Figures 2 to 4). Most of the participants had access to a car, which corresponds to the 64+ drivers in Finland (68%; Official Statistics of Finland, 2018). There is no upper age limit for holding a driving licence, but after the age of 70, a medical certificate is required (renewable regularly). It came out that many had functional limitations, but for now, only a couple of them needed assistive devices (e.g., a walking stick). Two participants had a disabled parking permit.

4.1.2. Typical Shopping Trip to the City Centre

Several modes of travel (walking, cycling, driving, and taking a taxi) were used, the bus being the most likely choice. In addition to the Market Place, popular shopping destinations included department stores, the Market Hall, and the Riverfront Promenade (see Figures 3 and 4). For a handful of participants, mostly in-centre residents, city shopping was a pleasant everyday activity whereas the majority did city shopping on a weekly basis. Visiting

Table 2. The pre-formulated themes of the focus-group discussions.

Introduction	• Introduce yourself briefly and tell the group where you usually buy your groceries and why you shop in that particular place.
A typical shopping trip to Turku city centre	• What comes to mind first when you think about Turku city centre as a shopping environment? • Describe your typical shopping trip to Turku city centre. • How are older consumers catered to in Turku city centre?
Turku city centre as a physical shopping environment	• Describe how you perceive the physical appearance of Turku city centre. • What thoughts does this design element arouse when you consider Turku city centre, and what thoughts does it arouse if you think about developing the city centre? • What thoughts does this ambient element arouse when you consider Turku city centre, and what thoughts does it arouse you think about developing the city centre?
Free discussion	• Is there anything else you would like to share with us about the topic?

Notes: design elements: layout, convenience, safety; architecture, style, colours, materials, furnishings, décor; ambient elements: weather, temperature, air quality, smell, lighting, sounds, cleanliness.

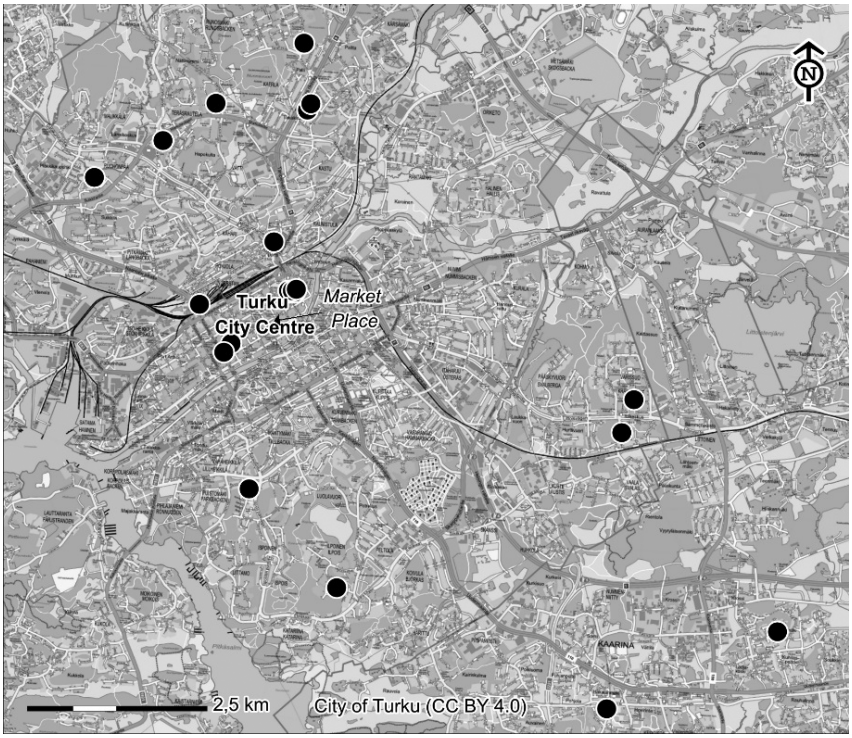


Figure 2. The focus-group participants' place of residence with respect to the city centre.

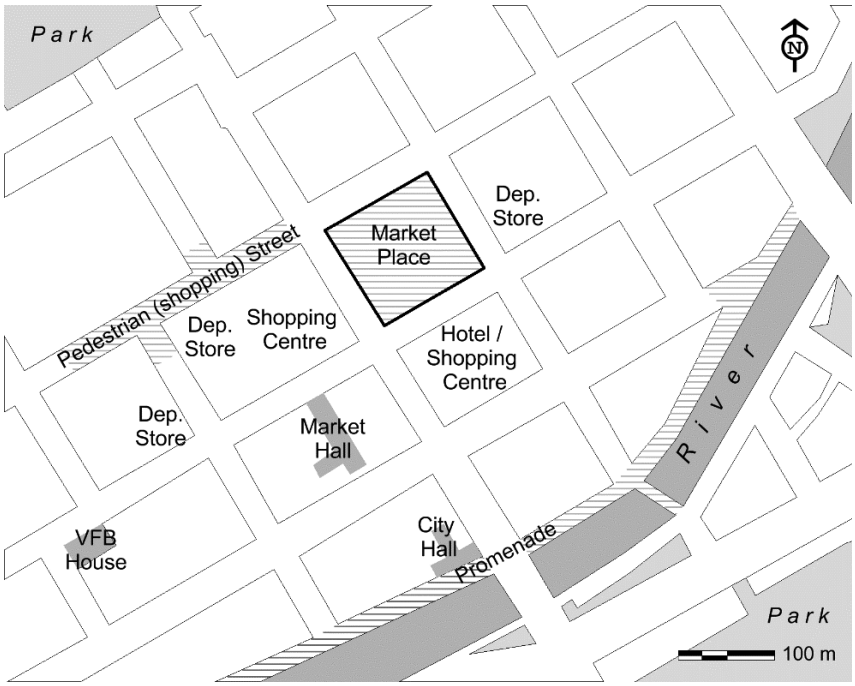


Figure 3. The Turku city-centre shopping environment with places of interest.

cafes or restaurants and meeting other people was important to these recreational shoppers. There were also a few infrequent city shoppers, who did not want to spend extra time in the centre. However, they argued that they would connect shopping with other activities if the physical environment were more attractive.

Common to all participants, a reason for city shopping was the access to services that could not be acquired elsewhere. Although there was a desire for clothing stores targeted at older adults, participants agreed that the city centre catered to them considerably well. In this context, attitudes toward other shopping environments were raised. The out-of-town shopping centres were thought to be targeted at younger shoppers. However, hypermarkets were popular among the off-centre residents due to the convenience in parking. Although

Figure 4. The Market Place (left) and the Riverfront Promenade (right).

the majority had sufficient know-how to use e-services, e-shopping was seen as a socially isolating and physically weakening activity. Participants wished to stay healthy and capable of moving in order to be able to take care of their shopping independently for as long as possible:

> It's important to us...that we can go where we want by ourselves… [that] we can go to the library…we can buy potatoes...by ourselves….This kind of activity is decreasing; it's highly valuable to maintain this option. (Woman, 82)

The first impressions of the city centre were mainly related to building architecture and style, outdoor furnishing, the convenience of street surfacing and parking, and the cleanliness of the streetscape. In their first impressions, participants used generic words to describe the environment, such as "easy", "difficult", "beautiful", "bland", or "annoying". When the shopping environment was discussed element by element, participants were able to open up their thoughts; what kinds of elements constitute "a beautiful building", for example.

4.2. Functional Design Elements: Convenience, Layout and Safety

Convenience provoked heated discussions from different perspectives. Regarding accessibility, there was a consensus that the city centre was more convenient to access by bus than by car. The sustainable aspect of transportation was not emphasised. The low-priced senior travel card, terminal points located around the Market Place, and parking inconvenience made the participants travel by bus. However, the downside of travelling by bus was that it restricted purchasing to light (if any) items. Thus, when making heavy purchases, the off-centre residents, in particular, drove to out-of-centre stores: "If I need a lot of groceries, I'll go to that [hypermarket] because I can park inside....Pushing the trolleys outside in other places is difficult" (Woman A, 67). As this was not an option for carless shoppers, who were dependent on outside help (e.g., taking a taxi), the ticket scanners were suggested to be installed near the wide back doors on buses to make it easier for mobility-impaired shoppers to travel with bags. It was considered unfair that only those who are permitted to travel free (wheelchair users, passengers with prams) may use the back doors.

The convenience of parking evoked several viewpoints. The participants agreed that enough parking facilities were available. However, those who preferred driving argued that the short-term and high-charge parking prevent them from spending as much time as they would like in the city centre. Participants were sceptical about the planned underground parking in the Market Place, not only because of the high charges but also because of the inconvenience of parking halls in general: "The [parking] times are so short that I take my car to a parking hall, but it's complicated due to my disability" (Woman, 64). As the walking distance to the car increases if the purchases have to be carried underground, those with a disabled parking permit were pleased that they have been allowed to park above ground: "I can visit many stores; it's easy to take purchases there [around the Market Hall and the City Hall] so that I don't have to carry them all at once" (Woman A, 67). To decrease the inconvenience of parking, the participants hoped for reasonable pricing and new spacious places available for all senior drivers at the street level.

The convenience of moving around raised various perceptions as it was closely connected to layout and safety. It was repeated that the grid street plan layout (see Figure 3) made it easier to perceive the location of the places and navigate among them: "The streets are…long and straight. As it's so small and compact, it's easy to run errands and go from one place to another" (Woman B, 81). The city centre, the Riverfront Promenade, in particular, was perceived as a barrier-free, thus safe environment to walk around. However, some histor-

ical storefronts (e.g., stairs without ramps/railings) and pedestrian areas (e.g., high kerbs, uneven pavements) required investment.

In addition to convenience, safety was related to social interaction within the environment. None of the participants had been subjected to personal violence. However, the fear of being harassed meant that they avoided late shopping (some stores are open until 9 p.m.). Even though they preferred daytime shopping during off-peak hours, participants felt insecure when walking among the traffic. However, they did not support the City's plans for banning private cars around the Market Place as they wished to be able to drive to the centre by themselves. The traffic also seemed to strengthen their feeling of security: if something happens, help is at hand. By "something" they referred to a high risk for older shoppers of falling over or slipping on the street: "It's uneven and when frost sets in and it's slippery…older people fall over" (Woman, 65). The proposals considered to increase convenience and safety were all-year street maintenance and proper lighting at dusk.

4.3. Aesthetic Design Elements

4.3.1. Architecture, Style, and Colours

The architecture and style of the city centre provoked lively discussion. The shopping environment was considered visually attractive, although it was criticised for lacking a consistent architectural line: "Not by the riverside, elsewhere, there's one splendid building here and there" (Man, 73). Prefabricated buildings, mainly from the 1960s and 1970s, were perceived as ruining the cityscape with its beautiful neoclassical/renaissance-styled buildings.

Perceptions of colours were closely related to architecture. The first impression was a greyness of concrete buildings, which was interesting given that there were very few unpainted concrete surfaces. When participants described what made historical buildings beautiful, the architecture, colours, and ornamentation were emphasised. The pleasant colour palette included yellow walls and detailing in white (Figures 4 and 5). Regarding landscape architecture, green parks, trees glowing with autumn tints or snow white and multi-coloured beds of flowers evoked positive sensations: "This is a city of maples. In the autumn, it's a work of art" (Woman, 80). Noteworthy, a touch of nature while shopping was considered to be vital for those who were unable to come in contact with nature and walk outside the centre. The importance of respecting historical buildings and conserving the parks and trees when implementing urban-development projects was stressed.

4.3.2. Materials

In terms of materials, the participants repeated their perceptions related to the architecture, convenience, and safety. In general, natural materials (stones, trees, plants, and water) were perceived as enriching the urban environment. Although some participants approved of cobbled streets as part of the medieval architecture, cobblestone was perceived as a non-functional material due to the unevenness and slipperiness: "The surfacing of the Market Place annoys me…even me, a healthy person, when I'm carrying shopping bags my eyes are focused on the ground, you cannot concentrate on the environment" (Woman, 82). It was proposed that there should also be smooth walkways in cobbled areas. In addition, an under-street heating system, similar to the Pedestrian Street, should be installed whenever it is possible.

4.3.3. Furnishings and Décor

Regarding urban furnishings, the limited provision of public seating and rubbish bins was emphasised. Although participants were pleased that the number of street terraces had increased in recent years (e.g., the Pedestrian Street, the Riverfront), they did not always want to be obligated to buy a cup of coffee when they needed to sit. They demanded proper and clean public seating for resting and enjoying the cityscape while shopping: "There should be benches in the Market Place…I think that our mobility is worsening all the time" (Woman B, 68).

As participants argued, to avoid falling full-length on the street they could not look upwards, the décor did not immediately evoke discussion. After thinking for a while, they mentioned flowers, statues, doors, iron gates, and murals. Those inclined towards recreational shopping desired more street art, such as the professionally made graffiti to embellish the dull, concrete walls (Figure 5): "I see them as the decorators or creators of the cityscape" (Woman A, 68). It was also suggested that bland rubbish bins be decorated with artwork would make the environment more attractive, and cleaner. It is noteworthy that the shop windows were considered the decors of the shopping environment. As a hint to brick-and-mortar retailers, windows covered with modern advertising posters were perceived to be as boring as vacant stores.

4.4. Ambient Elements

4.4.1. Weather and Temperature

Despite seasonal differences, the climate did not affect city-centre patronage very much, but it influenced convenience and safety. The participants visited the city centre all year round: "I visit the Market Place whether it's winter or summer, the weather has no effect on that" (Woman B, 67). However, when the streets were icy or slushy, they faced challenges. In intolerable weather, some participants drove to out-of-town hypermarkets, but the carless, mobility-impaired occasionally felt trapped in their homes: "The winter isolates all of us

Figure 5. The old building (the VFB House) and iron gate against a contemporary mural.

crippled people" (Woman, 82). The temperature in itself was not an issue: it was just a matter of clothing. Worth noting, recent winters in the area have been less-snowy (Figure 5), which has not prevented outdoor activity. However, the under-street heating system was brought up again as a means to increase shopping enjoyment.

4.4.2. Air Quality, Smell, and Sounds

The airborne elements did not arouse heated discussion, but it was noticed that air quality and smells were much better inside than outside the centre: "I don't think we have such bad smell in the centre as they do in some other places in the city" (Woman A, 68). However, a few occasional sources of unpleasantness came up: stinking rubbish bins and cigarette smoke in the storefronts, street dust in the spring, and the winter inversion that traps pollution at the street level. The pleasantness includes aromas coming from street terraces, the scent of flowers, and "fresh air which comes nicely from the sea" (Man, 72).

Although the hubbub of traffic was perceived as unpleasant, it was considered a natural and thus tolerable city sound: "Sounds of the city, which never end, it's sort of normal, it belongs to that life" (Woman B, 68). Those who had lived in the city for a long time observed that the centre had also become quieter after the introduction of car restrictions. Nowadays, the shopping environment resonates with music and international voices. More outdoor events for all ages were desired, but criteria for street musicians' playing skill were demanded.

4.4.3. Cleanliness

Uncleanliness evoked frustration; it was described that: "[Uncleanliness is] the greatest problem in the city centre, which is attractive otherwise" (Man, 73). The paper wrappings and cigarette butts on the pavement were the most annoying, in the Market Place surroundings in particular. The parking-hall development project was supported, not in terms of expanding the parking facilities, but as potentially cleaning up the Market Place. A cue should be taken from the Riverfront, where there has been investment in decorated bins, for example. The main problem, however, was perceived to lie in the attitudes of people: "There are too few rubbish bins…but the fault is also in the residents because they throw butts just where they're standing. No one can do anything unless people change their attitudes" (Woman, 79). The imposition of fines for littering was suggested.

4.4.4. Lighting

Given the seasonal variations in daylight (6 to 19 hours), lighting was highly emphasised. It was connected to convenience and safety, as well as colours and décor. It was described that white-coloured decorative lights reflected on facades and trees also illuminate the streets, and thus enhance convenience and feelings of security. It was also generally thought that the retailers' illuminated signs and display windows created a pleasant shopping environment, especially during the Christmas period. In public areas, the festive lights were perceived as modest. For the year-round festive illumination, provided that it is neither flashing nor multi-coloured, it was suggested that: "There should be other than Christmas lights…it'd liven up the attraction" (Woman, 71). However, it was highly emphasised that aesthetics should follow functionality in public lighting: "It's vital that there's good lighting so that older people can move around there" (Woman, 80).

5. Discussion

This study attested to the importance of the city centre for older shoppers (e.g., Wrigley & Lambiri, 2015). It

contributed to current knowledge by focusing on older consumers' perceptions of the elements in the external shopping environment (see Figure 1), which have not gained much attention in retailing (e.g., Hart et al., 2013). The focus-group discussions of 22 participants proved to be an appropriate method to identify what kinds of elements constitute an attractive city-centre shopping environment to older consumers, and how they do so. The elements, which evoked strong sensations, typically unattractive, raised proposals for improvements. The suggested means to develop the city centre should be actualized in order to make for a more age-friendly shopping environment. In addition, the study improved the current understanding of older consumers' shopping behaviour in the city centre.

The focus groups consisted of consumers aged 64+ who lived an active and independent life and wished to do so as long as possible. They confirmed that the versatile services, also targeted for older consumers, and the physical characteristics of the shopping environment were the assets of the age-friendly city centre (e.g., Buffel et al., 2012; Teller et al., 2016). As noticed in previous studies on older consumers (e.g., Kohijoki & Marjanen, 2013), most of the focus-group participants were inclined towards recreational shopping. While shopping in the city centre, they were keen to spend time frequenting cafes and restaurants, meeting people, and sightseeing. This indicates that city shopping more than fulfilled the senior shoppers' consumption needs: it gave them a reason to go out, get some fresh air, and maintain social contacts. This was not offered in e-stores or out-of-town shopping centres.

Consistent with prior studies, the shopping environment that is functional with respect to layout, convenience, and safety proved to be essential for older consumers to cope with their shopping in the city centre (cf. De Nisco & Warnaby, 2013; Hovbrandt et al., 2007). Focus groups reflected that barrier-free building-design regulations had enhanced convenience and safety in the transitional zone. Only in some historical buildings, the storefronts still require investment with regards to accessibility, such as installing handrails on stairs. The element which truly decreased functionality was the safety risk for older city shoppers of falling over/slipping on the pavement.

The availability and cost of parking have been found to be the key issues for city shoppers of all ages (e.g., Wrigley & Lambiri, 2015). This study revealed that not all available car parks are convenient for older drivers. This refers to inaccessible parking halls and short-time parking that prevents lingering in the centre. It should be noted that a private car is a vital means for some seniors to run their errands. Thus, there should be spacious "family-parking" places made available to older shoppers at street level. Low-priced off-peak parking at around midday would benefit all city shoppers. However, an increasing number of non-driving seniors should not be forgotten for whom convenient public transportation access to the city centre is vital for coping with shopping.

Similar to previous findings (e.g., De Nisco & Warnaby, 2013; Reimers & Clulow, 2014), the environmental aesthetics were considered important, particularly among recreational focus-group participants who were attracted by the authentic city architecture and appealing details. Given that older consumers preferred bricks-and-mortar shopping to "screen shopping", well-maintained and harmonious facades with illuminated advertising and well-designed window displays were considered pleasant. It is also noteworthy that the city parks and street plantings were seen as a vital part of an age-friendly shopping environment. Walking outdoors has been found to increase physical and mental well-being (see Hunter et al., 2011), so urban nature should be respected in the city centre. This study also showed that trees, flowers, artworks, and other décors of streetscape offer the means to harmonise the contrast between new and old architecture at a rather low cost. Investing in aesthetics is worthwhile as it may also enhance functionality. It was prioritised that smooth surfacing increases convenience and safety to move around whereas seating, both in public and private areas, allows senior shoppers to rest their feet and enjoy the cityscape.

The study confirmed that ambience influences shopping enjoyment (cf. Dellaert et al., 2008; Hart et al., 2013; Teller & Reutterer, 2008), and can be crucial for older consumers to run errands outdoors. In spite of the Nordic climate, the city centre was attractive to older consumers all year round. Having fresh air was one of the upsides of city shopping. The traffic-born elements were tolerable in the car-restricted areas. To improve the year-round ambience, investment in pedestrian street maintenance, including waste management and lighting, was considered to be first in priority. Good outdoor lighting is vital for ageing eyes trying to cope with shopping. Efficient lighting increased shopping enjoyment by creating a functional and aesthetic environment. Lighting, even if decorative, is a fairly easy and low-price solution (e.g., floodlit buildings) to enliven the urban landscape.

The focus groups offered contents and meanings to the external elements, the effects of which on consumers have mostly been studied quantitatively. The discussions did not reveal new elements to the framework (Figure 1). The strengths of the study were that all the elements in the framework were discussed from the viewpoint of the highly-involved consumers, and in one city centre. The elements which evoked the most vivid discussion among the participants were convenience, safety, architecture, furnishings, lighting, and cleanliness. Although the elements were discussed one by one, the summaries of the contents reflect that the design and ambient elements were related to each other, having a synergetic influence on attractiveness. Convenience was related to several aesthetic (e.g., furnishing, material) and ambient (e.g., weather, lighting) elements. The architecture was closely connected to other aesthetic elements, and ambient lighting had both functional (e.g., convenience and safety) and aesthetic connotations (e.g., colours and

decors). This synergy effect should be taken into account when developing the city-centre shopping environment.

To identify what kind of elements constitute an attractive city-centre shopping environment, and how they do so, the study focused both on the pleasant and unpleasant perceptions. It can be summarised that the unattractive shopping environment was constructed based on a dull and inconsistent architectural style, inconvenient and unsafe cobblestone (or other uneven) street surfacing, the lack of proper seating and lighting, and untidiness of the streetscape. The attractiveness of the shopping environment was attributed to the consistent architectural style with warm-coloured, spot-lit and decorated buildings, the uniformly surfaced and illuminated pavements, proper seating both in public and private areas, artworks, elements of nature, and decorated rubbish bins along the streets.

In the case of Turku, these attributes can be contextualised to the Market Place and the Riverfront (Figures 3 and 4), which were in different phases of the revitalisation process. The centrally located Market Place received full marks for being a vital service environment for older consumers, but it was considered a non-functional and anaesthetic shopping environment. To develop the environment in a more age-friendly manner, cue should be taken from the Riverfront, where investment has paid off, in light of the positive perceptions and actions of older city shoppers. However, the study showed that, from an older consumer's perspective, in order to revitalise the Market Place, or any other external shopping environment, the actions do not need to be large-scale. Even the minutiae (e.g., lights, chairs, flowers, etc.) have a notable effect; they are usually easy to control and incur quite low costs. It was also shown that the bricks-and-mortar entrepreneurs have a strong influence in the transitional zone. However, influencing city-centre attractiveness at the large scale requires co-operation among several actors.

6. Limitations and Future Research

The study was limited to the medium-sized city located in Northern Europe. Thus, the findings are best applicable to cities with similar demographic characteristics and seasonal climatic variations. However, the fundamental challenges related to consumer ageing that face urban and retail planners are similar irrespective of the location and size of the city. A comparative study between several cities is suggested to confirm this statement. In addition, as the findings reflected woman-dominated perceptions, to compare the genders in the further studies, a different strategy should be considered when recruiting male volunteers. Although the study focused only on older consumers, it is worth noticing that meeting the needs of older city shoppers does not have to be at the expense of younger ones. Consumers may be mobility-restricted in different phases of their lives, for example, and for several reasons. To develop city centres that are friendly for all ages, comparative research using the framework of the study is suggested. As the study has reached its goals methodologically, the focus-group approach is recommended for these comparative studies. To continue with this topic among older consumers, walking-along interviews, for example, could reveal how the elements affect consumers when shopping in the city centre. Finally, the study focused on tangibles, as they offer concrete means to enhance the shopping environment. In the focus-group discussions, social aspects also emerged, reflecting that the city centre offers a social living-room setting to older shoppers. Given that older consumers in the Western cities are increasingly living alone, there is a need for research on the role of shopping in fulfilling social needs and preventing loneliness. It is essential to develop the built environment, service provision, and social aspects in city centres to make them more age-friendly.

Acknowledgments

This work was supported by the City of Turku and The Foundation for Economic Education. The authors offer their warm thanks to the persons responsible for helping to organise the discussions, and especially to the consumers who participated in the discussions with an open mind.

Conflict of Interests

The authors declare no conflict of interest.

References

Baker, J. (1986). The role of environment in marketing services: The consumer perspective. In J. A. Czepiel, C. A. Congram, & J. Shanaham (Eds.), *The service challenge: Integrating for competitive advantage* (pp. 79–84). Chicago, IL: American Marketing Association.

Baker, J., Grewal, D., & Parasuraman, A. (1994). The influence of store environment on quality inferences and store image. *Journal of the Academy of Marketing Science*, *22*(4), 328–339. https://doi.org/10.1177/0092070394224002

Bell, S. J. (1999). Image and consumer attraction to intraurban retail areas: An environmental psychology approach. *Journal of Retailing and Consumer Services*, *6*(2), 67–78. https://doi.org/10.1016/S0969-6989(98)00015-0

Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, *56*(2), 57–71. https://doi.org/10.2307/1252042

Bromley, R. D. F., & Thomas, C. T. (2002). Food shopping and town centre vitality: Exploring the link. *The International Review of Retail, Distribution and Consumer Research*, *12*(2), 109–130. https://doi.org/10.1080/09593960210127682

Buffel, T., Phillipson, C., & Scharf, T. (2012). Ageing in

urban environments: Developing 'age-friendly' cities. *Critical Social Policy*, *32*(4), 597–617. https://doi.org/10.1177/0261018311430457

City of Turku. (2014). Turku 2029 city strategy. *The City of Turku*. Retrieved from www.turku.fi/sites/default/files/atoms/files//kaupunkistrategia2029_weben.pdf

Dawson, S., Bloch, P. H., & Ridgway, N. M. (1990). Shopping motives, emotional states, and retail outcomes. *Journal of Retailing*, *66*(4), 408–427.

De Nisco, A., & Warnaby, G. (2013). Shopping in downtown. The effect of urban environment on service quality perception and behavioural intentions. *International Journal of Retail & Distribution Management*, *41*(9), 654–670. https://doi.org/10.1108/IJRDM-05-2013-0106

De Nisco, A., & Warnaby, G. (2014). Urban design and tenant variety influences on consumers' emotions and approach behaviour. *Journal of Business Research*, *67*(2), 211–217. https://doi.org/10.1016/j.jbusres.2012.10.002

Dellaert, B. G. C., Arentze, T. A., & Timmermans, H. J. P. (2008). Shopping context and consumers' mental representation of complex shopping trip decision problems. *Journal of Retailing*, *84*(2), 219–232. https://doi.org/10.1016/j.jretai.2008.02.001

Donovan, R. J., & Rossiter, J. R. (1982). Store atmosphere: An environmental psychology approach. *Journal of Retailing*, *58*(1), 34–57.

Ethics Committee of the University of Turku. (2018). The preliminary assessment of non-medical research. *University of Turku*. Retrieved from www.utu.fi/en/research/ethicality/assessment-of-non-medical-research/Pages/home.aspx

Eurostat Database. (2018). Projected old-age dependency ratio. *EC Europa*. Retrieved from https://ec.europa.eu/eurostat/web/products-datasets/-/tsdde511

Hart, C., Stachow, G., & Cadogan, J. W. (2013). Conceptualising town centre image and the customer experience. *Journal of Marketing Management*, *29*(15/16), 1753–1781. https://doi.org/10.1080/0267257X.2013.800900

Hovbrandt, P., Ståhl, A., Iwarsson, S., Horstmann, V., & Carlsson, G. (2007). Very old people's use of the pedestrian environment: Functional limitations, frequency of activity and environmental demands. *European Journal of Ageing*, *4*, 201–211. https://doi.org/10.1007/s10433-007-0064-2

Hunter, R. H., Sykes, K., Lowman, S. G., Duncan, R., Satariano, W. A., & Belza, B. (2011). Environmental and policy change to support healthy aging. *Journal of Aging & Social Policy*, *23*(4), 354–371. https://doi.org/10.1080/08959420.2011.605642

Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ*, *311*(7000), 299–302. https://doi.org/10.1136/bmj.311.7000.299

Kohijoki, A.-M. (2011). The effect of aging on consumer disadvantage in grocery retail services among the Finnish elderly. *Journal of Retailing and Consumer Services*, *18*(4), 370–377. https://doi.org/10.1016/j.jretconser.2011.04.003

Kohijoki, A.-M., & Koistinen, K. (2018). The effect of the physical environment on consumers' perceptions: A review of the retailing research on external shopping environment. *Architecture and Urban Planning*, *14*, 83–90. https://doi.org/10.2478/aup-2018-0011

Kohijoki, A.-M., & Marjanen, H. (2013). The effect of age on shopping orientation: Choice orientation types of the ageing shoppers. *Journal of Retailing and Consumer Services*, *20*(4), 165–172. https://doi.org/10.1016/j.jretconser.2012.11.004

Krueger, R. A. (1988). *Focus groups. A practical guide for applied research*. Riverside County, CA: Sage Publications.

Laukkanen, M. (2016). Tulevaisuuden Turku 2029 [Findings of the future Turku 2029 survey]. *City of Turku*. Retrieved from www.turku.fi/sites/default/files/atoms/files//kyselyraportti.pdf

Maronick, T. J. (2007). Specialty retail center's impact on downtown shopping, dining, and entertainment. *International Journal of Retail & Distribution Management*, *35*(7), 556–568. https://doi.org/10.1108/09590550710755930

Mayring, P. (2004). Qualitative content analysis. In U. Flick, E. von Kardorff, & I. Steinke. (Eds.), *A companion to qualitative research* (pp. 266–269). London: Sage Publications.

Morgan, D. L. (1997). *Focus groups as qualitative research*. Thousand Oaks, CA: Sage Publications.

Myers, H., & Lumbers, M. (2008). Understanding older shoppers: A phenomenological investigation. *Journal of Consumer Marketing*, *2*(5), 294–301. https://doi.org/10.1108/07363760810890525

Official Statistics of Finland. (2018). StatFin statistical database. *Statistics of Finland*. Retrieved from www.stat.fi/til/index_en.html

Parker, C., Ntounis, N., Millington, S., Quin, S., & Castillo-Villar, C. F. (2017). Improving the vitality and viability of the UK high street by 2020: Identifying priorities and a framework for action. *Journal of Place Management and Development*, *10*(4), 310–348. https://doi.org/10.1108/JPMD-03-2017-0032

Reimers, V., & Clulow, V. (2014). Spatial convenience: Bridging the gap between shopping malls and shopping strips. *International Journal of Retail & Distribution Management*, *42*(10), 864–883. https://doi.org/10.1108/IJRDM-08-2013-0153

Rosenbaum, M., & Massiah, C. (2011). An expanded servicescape perspective. *Journal of Service Marketing*, *22*(4), 471–490. https://doi.org/10.1108/09564231111155088

Teller, C. (2008). Shopping streets versus shopping malls: Determinants of agglomeration format attractiveness from the consumers' point of view. *International Review of Retail, Distribution and Consumer Research*, *18*(3), 381–403. http://dx.doi.org/10.1080/

09593960802299452

Teller, C., & Reutterer, T. (2008). The evolving concept of retail attractiveness: What makes retail agglomerations attractive when customers shop at them? *Journal of Retailing and Consumer Services*, *15*(3), 127–143. https://doi.org/10.1016/j.jretconser.2007.03.003

Teller, C., Wood, S., & Floh, A. (2016). Adaptive resilience and the competition between retail and service agglomeration formats: An international perspective. *Journal of Marketing Management*, *32*(17/18), 1537–1561. https://doi.org/10.1080/0267257X.2016.1240705

Tuomi, J., & Sarajärvi, A. (2018). *Laadullinen tutkimus ja sisällönanalyysi* [Qualitative research and content analysis]. Helsinki: Kustannusosakeyhtiö Tammi.

Turley, L. W., & Milliman, R. E. (2000). Atmospheric effects on shopping behavior: A review of the experimental evidence. *Journal of Business Research*, *49*, 193–211. https://doi.org/10.1016/S0148-2963(99)00010-7

Underhill, P. (1999). *Why we buy: The science of shopping*. New York, NY: Touchstone.

Wrigley, N., & Lambiri, D. (2015). *British high streets: From crisis to recovery? A comprehensive review of the evidence*. Southampton: University of Southampton, Economic & Social Research Council.

About the Authors

Anna-Maija Kohijoki received the degree of Doctor of Science in Economics (Economic Geography) in 2013 from the Turku School of Economics, University of Turku. The focus of her doctoral thesis was the physical and experienced accessibility of grocery retail services with special reference to ageing consumers. Currently, she is working as a university teacher in economic geography at the Turku School of Economics. Her research interests include consumer spatial behaviour, urban planning, and applications of GIS in business.

Katri Koistinen received the degree of Doctor of Philosophy (Economic Geography) in 2006 from the Turku School of Economics, University of Turku. Her doctoral thesis focused on the planning and decision-making process that led to the decision to locate Mylly, the biggest shopping centre in South-West Finland, in Hauninen area in Raisio. Koistinen works as a university lecturer at the Centre for Consumer Society Research at the University of Helsinki. Her research interests are the geography of retailing, services, consumer behaviour, urban planning, and qualitative methods.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 18–30
DOI: 10.17645/up.v4i2.1863

Article

Ageing in Suburban Neighbourhoods: Planning, Densities and Place Assessment

Byron Ioannou

Department of Architecture, School of Engineering, Frederick University, 1036 Nicosia, Cyprus;
E-Mail: b.ioannou@frederick.ac.cy

Submitted: 10 December 2018 | Accepted: 25 February 2019 | Published: 18 June 2019

Abstract
The article examines the environmental qualities perceived by ageing populations in suburban low-density and car-oriented neighbourhoods in comparison to more dense and central areas. The study focuses on Nicosia, Cyprus, a city that suffers from extended sprawl and car dependency in almost every urban district. The aim of the article is to investigate how older adults perceive and evaluate their place of residence and if this assessment relates to the suburban or the city centre profile of their neighbourhoods. For this reason, the study takes five residential districts, two central and three suburban areas, as case studies. Each of the selected residential districts performs differently in terms of percentage of the population over the age of 65; scale and street layout; adequacy in supporting land uses; building density; distance from the city centre and public space availability and condition. The almost exclusive use of private cars, as the main transportation mode is a common feature of all older adults interviewed in these areas. The older adults' perceptions of place are assessed through the Place Standard (PS), a simple recently awarded framework which structures conversations about place in regard to its physical elements as well as its social composition. PS is used as an interview tool, which allows the mapping/visualization of qualitative data. Qualitative in-depth interviews conclude to an evaluation of fourteen aspects that outline a residential district profile from mobility to green and urban image attractiveness, and from facilities to social contact and safety, covering almost every aspect of daily life. The article concludes that the neighbourhood assessment from older residents varies depending on the nature of the suburban neighbourhood. Density, layout and distance from the city centre matter according to the participants' evaluation and there is a clear preference towards suburban low-density areas.

Keywords
ageing; place standard; liveable neighbourhood; suburban development; urban densities; urban sprawl

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction: Narratives of Quality Residential Areas for Older Adults

The aim of the article is to discuss the place assessment of suburban and city centre residential areas in Cyprus from the point of view of their senior citizens. A main problem of urban development in Cyprus, an Island state of the Eastern Mediterranean, is the extended sprawl and low densities that characterise the majority of its developed areas (Savvides, 2018). Ageing and place appropriateness in suburban neighbourhoods is a particular aspect of this issue that has never before been discussed in detail or researched. Built areas in Cyprus decline from several goals of the Habitat Program (United Nations, 2018), since serious gaps occur in providing accessible and sustainable mobility for all, better performance of cities in terms of their environmental impact, access to quality public spaces and improve integration between urban, suburban and rural space (Ioannou, 2016). Low-density suburban areas with increasing older adults' population are typical for all the four urban conurbations of the area controlled by the Republic of Cyprus at the

south (Figure 1). Nicosia, the capital, is the largest of the four, around 240,000 inhabitants in 2001 (28% of the total population) covering a total area of around 200km^2. City population is almost six times the 1960 population of 45,000 inhabitants. The average population older than 65 was at the time 18.45%, 22.8% for the country and 29.9% the EU average (Eurostat, 2017).

The article starts with a review of planning and development processes which produced the suburban fringe during the past decades. It continues with the profiling of older adults regarding residential mobility, family ties and ownership, and recent trends and preferences in these fields. A mapping of Nicosia neighbourhoods follows as an attempt to outline the geographies of ageing population of the city in relation to densities of suburban district types. Then, the Place Standard ([PS], 2018) assessment tool is applied for five selected districts of different profiles. Finally, twenty-five in-depth qualitative interviews, five from each district, on the perception of older adults for their place of residence, provide a comparative evaluation on the fourteen quality indicators assessed through the PS tool.

The main hypothesis of the article is to comparatively investigate how the population over the age of 65 assesses its neighbourhood and what is the relation (if any) of this assessment to suburban spatial features such as density. In this context an outline emerges clarifying which are the narratives of quality residential areas for older adults in the case of the Nicosia suburbia. The article also aims at providing a general context and define a set of issues for further research on the spatial character of Cyprus cities, which is today missing from a critical planning debate.

Typical narratives of sustainable neighbourhoods for older adults (Hooper, Matthew, Foster, & Giles-Corti, 2015), that means denser and more crowded residential areas, are not the case of the local suburban reality in Cyprus. There is a series of weaknesses in most of the urban areas (Ioannides, 2018) related with the loose structure of the suburban fringe and the low densities that cannot support a broad range of urban amenities and services, more specifically: local central amenity cores are weak or even absent, so access to neighbourhood centres on foot (up to 400 to 1600m) to a diversity of destinations is limited; access to public transport is not adequate because of the insufficiency of the provided services; the plot-by-plot neighbourhood development and patchy design layout discourages connectivity and viability of focal points; external through connections at the perimeter of a district are limited and cul de sacs are the common; shaded streets with tree canopy cover are rare despite the hot Mediterranean climate; housing diversity and development types are deficient in most of the areas, while affordable housing is rare and in crisis; public parklands, access to parks, parks surveillance and safety are again problematic.

Contrary to the weaknesses of the built environment as described above, the development of social relation seems more vivid (Minas, Mavrikiou, & Jacobson, 2013). There are still strong and frequent relationships between members of social groups sharing similar identities or being part of wider families, which is a positive condition (Buffel et al., 2014a). There is a need to investigate further whether these relationships foster participation, involvement, a "sense of community", or a feeling of belonging to the local neighbourhood (Lachapelle, 2008).

The current research sets densities and city plan/layout as the main terrain of interest, were variables like interpersonal relationships, place attachment and community engagement, are tested. Social param-

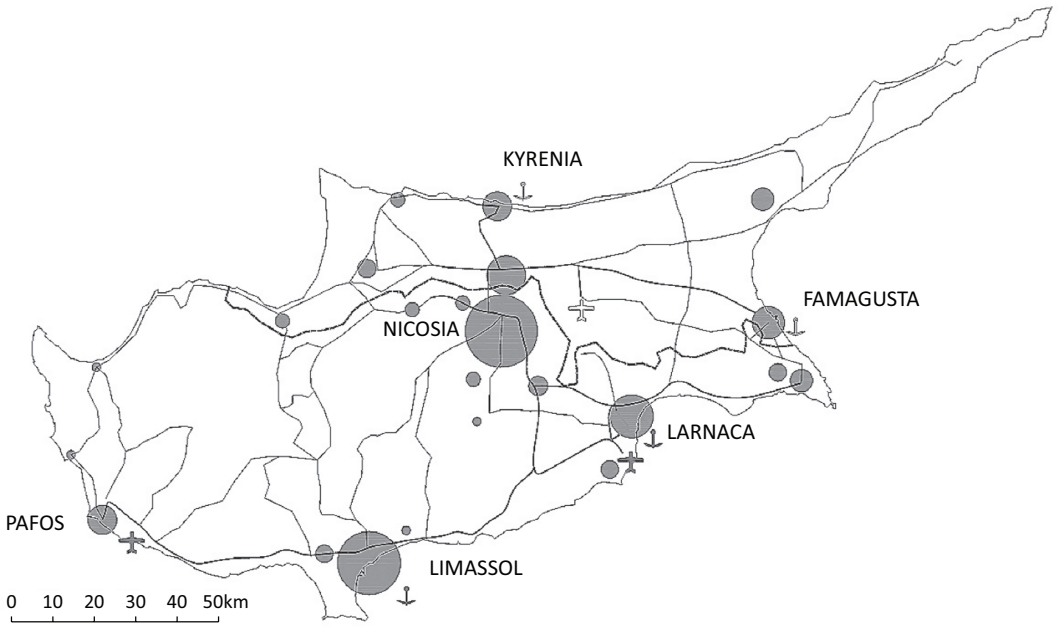


Figure 1. Map of Cyprus indicating Nicosia and the main settlements of the island.

eters such as loneliness and low income, health condition, limited mobility, third age or other circumstances (Buffel et al., 2014b; Van Cauwenberg et al., 2014) are not included in the investigation hypotheses, in order to focus purely on the spatial dimension. The aim of the article is to examine how the majority of older adults assesses the place of their residence and if suburban residents perform differences in the perception of the quality of their place compared to central neighbourhood residents. This preliminary investigation does not include a number of other special social parameters equally important.

2. Planning and the Production of the Current Suburbia

Suburban development in Cyprus has gradually been developing during the last eighty years (Ioannou, 2016), and over the life span of the today's population over the age of 65. The current generation of ageing "suburbians", being in their youth then, was the first colonists of the early suburbs. Most of them have spent their whole lives at the residencies they were born and brought up since residential mobility in Mediterranean countries is relatively low (Arbaci & Malheiros, 2010). Generally, suburban development is boosted by the growing dominance of the single-family detached home as a preferred lifestyle (Gammage, 2016). In fact, urbanisation occurred in Cyprus in the second half of the 20th century and, during the first stages, it was almost exclusively based on the typology of freestanding houses. In this context, the single-family detached home was not only a preferred lifestyle but also reflected a kind of middle class "appropriateness" (Ioannides, 2018). Even today, a big part of the society considers single house, as an evidence of descent living for a typical local family household, perceptions which are not only local. People in many countries see peripheral suburban places as locations where individuals ought to go to realize dreams of property ownership, access to nature, and community involvement (Lee, Hong, & Park, 2017; Trudeau, 2018).

Suburbia has been associated with specific lifestyle, daily routines, mobility and consumption modes (Butler, 2005). Zoning is still a predominant planning tool in Cyprus despite the fact that it is an essentially negative mean of control, relying on a notional commitment to physical determinism (Butler, 2005). The bureaucratic rationality in planning, and the politics of satisfying social perceptions as well as the landowners' interests against "good" planning have established de-concentrated home ownership as the norm (Ioannou, 2016). Within this complete absence of public realm, other than roads, suburbanisation might completely diminish traditional spaces of encounter. The absence of neighbourhood masterplans and the fragmented layout development that serves only car circulation, as well as land speculation through the vast expansion of the development areas, was set as the rule since the 1950s (Morris, 1959). The layout design, by avoiding rectangular grids and using dead ends, increases the length of automobile trip and at the same time discourages walking within the neighbourhood (Moudon et al., 2006). Extended development zones, not based on population forecasts, have left even the early suburban quarters to a large extent undeveloped, performing densities below 100 inhabitants/ha (Ioannou, 2016). For example, areas 1040, 1048 or 1075 (Figure 2) in Nicosia started to develop after the 1930s but they still contain empty plots around thirty to 40% of their total surface. The question is, how far is there an impact of these densities on the social relations and daily contacts of the older adults?

3. Older Adults in Cyprus: Residential Mobility, Cultural Backgrounds and Changing Lifestyles

"Ageing in place" has been an influential notion for social ageing policies in Europe since the 1990s (Ahn, 2017; Moulaert, Wanka, & Drilling, 2017). It is important for ageing to evolve in a stable environment, equipped with the notion of home, family, and a strong collective memory of a neighbourhood past (Ahn, 2017). Several scholars have proven that traditional family bonds still active in Cyprus, while in a lot of cases relations and support of the older adults by their descendants are strong (Minas et al., 2013). At the same time due to the insufficient social infrastructure, combined with the unemployment and the reduction of the income of the younger generations, the older adults may support their children either economically or by providing daily services such as childcare or preparing meals. This frame of relations is usually spatially defined, since in many cases parents contribute by donating money or property in order for their children to settle down in a close distance (Minas et al., 2013). There are cases where parents move to a second house very close to their original one in order to pass it on to their children or, more commonly, cases where children are invited to build a new house as an extension of their parents' single house. There are also cases where empty plots close in proximity are donated to the children by their parents (Minas et al., 2013). Population over the age of 65 in Cyprus considers family bonds as a main reason to be happy and this is again a strong reason that shapes their relation to place locality (Neocleous & Apostolou, 2016).

During the last quarter of the 20th century, the traditional role of the Mediterranean family in the support and daily care of its older adults is being subjected to economic, social and psychological strains, and has been in several cases seriously weakened (Phellas, 2013). The change in family values, the reduction in family size and the change of the traditional role of women have threatened the tradition of ageing in place and promoted the institutionalisation of the older adults (Troisi, 2013). There is justified evidence that in Cyprus the extent of these transitions is not yet widespread (Phellas, 2013).

The recent economic crisis that began in Cyprus in early 2010 has reduced pension benefits, thus having an

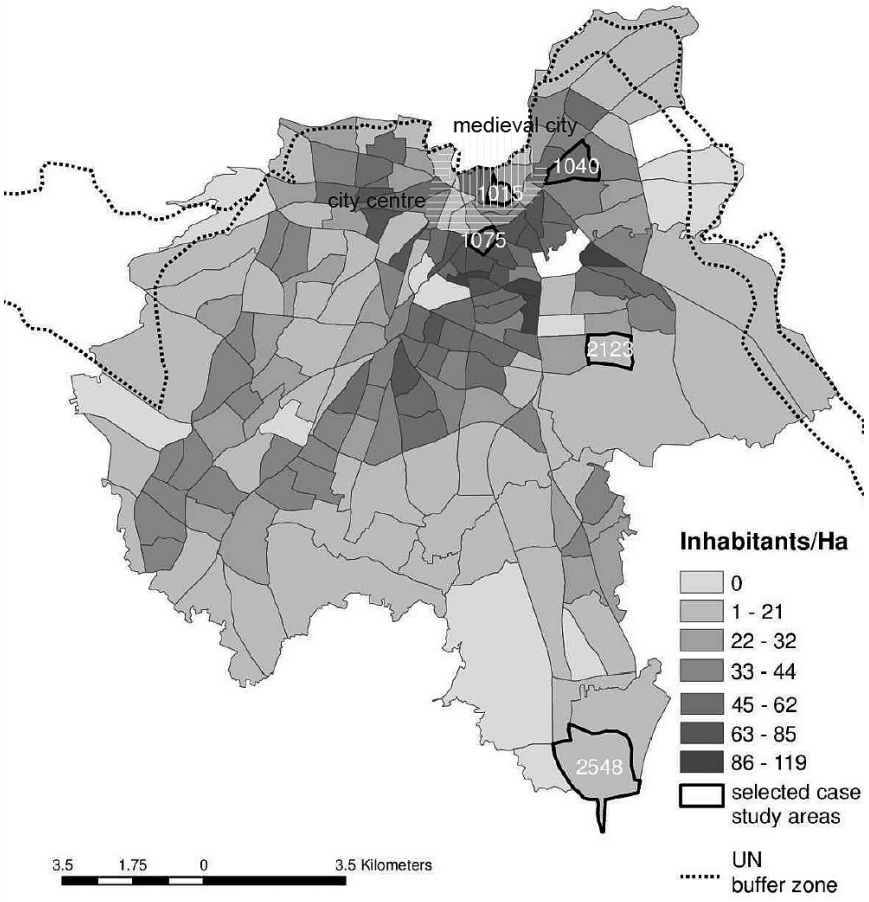


Figure 2. Nicosia postal districts density map. Medieval city: vertical white hatch; city centre: horizontal white hatch.

effect on housing options for the older adults, as well as on the capacity of their descendants to acquire their own home (Neocleous & Apostolou, 2016). Due to these conditions many older adults have left care institutions and returned to their homes (Neocleous & Apostolou, 2016), and in some cases cohabit with children or relatives. There are also government programs for nursing homes or home care (personal hygiene, house-cleaning, washing of clothes, shopping, etc.) that support older adults on their decision to live at home (Kouta, Kaite, Papadopoulos, & Phellas, 2015). The employment of foreign domestic workers as live-in carers is another option that became very popular during the last decades (Panayiotopoulos, 2005). Both options support them to live in their own residences and avoid moving in with relatives, when the older adults need intensive care (Panayiotopoulos, 2005). This practice appears to be culturally acceptable and, indeed, laudable (Panayiotopoulos, 2005). In addition, this practice ensures in many cases that independent mobility in private vehicles lasts longer than the ability of the senior to drive since the car is there to be used by an assistant, if not by the older adults themselves (Neocleous & Apostolou, 2016). All these changes have reversed the older trends of institutionalizing the older adults and brought society back to the traditional values of "ageing in place" (Neocleous & Apostolou, 2016).

4. Mapping Ageing in Suburban and Central Districts of Nicosia: Methodology and Basic Assumptions

The case study analysis consists of two main steps. At first, there is a selection of five of 186 districts, based on differentiated density and spatial typology, in order to examine the main research hypothesis of how far environmental characteristics impact on the sense of satisfaction with lifestyle parameters. The second step concentrates on the selection of five key participants (older adults over the age of 65) from each district (twenty-five in total) for qualitative in-depth interviews based on the PS tool. The PS (2018) is a web application that provides an interview framework for a holistic place assessment.

Despite the fact that low urban densities are some of the most significant problems of the urban areas in Cyprus (DTPH, 2011), there is a lack of published survey data around the issue. The national Statistical Service censuses publish population data down to the level of a postal code district, which is the lowest spatial unit that data can be retrieved; moreover, available statistics on housing conditions are not place specific (Eurostat, 2014). This article analyses data at the level of a postal code district, which is not actually a neighbourhood or an administrative boundary, but it is an area more or less close to a walkable spatial entity (dimensions vary from 500m to 2km). The research examines the density and

the percentages of population over the age of 65 for 186 polygons (postal code districts) of a total population of 241,173 (census data from 2011). In around 75% of the 186 districts, the average population over the age of 65 varies between ten and 27%, while a smaller number has significantly higher or lower percentages due to local specific conditions. The average density is around 45 inhabitants/ha while there is no obvious relation between the percentages of the population over the age of 65 and the densities in general. The density of the population over the age of 65 is a result of the historic evolution of each separate district and its specific development pattern.

In order to understand the ratio/scale of city expansion, only five districts in total are part of the walled old city that existed as the only built area prior to 1930 (Figure 2). All the other districts are mid- and late-20th century suburbia, while only ten of them partly include ex-village cores which over time were intergraded into the city plan. The city was expanding concentrically around the walled city until the military events of 1963–1964 and the Turkish invasion of 1974, which led to the division of the island. From this point, onward Nicosia began to expand towards the south and southwest directions (Ioannides, 2018). Early suburbs are closer to the walled city and their population over the age of 65 has more or less settled there since its birth or early youth. The southern suburbs were more recently developed and their population over 65 immigrated there at a later stage of their lives.

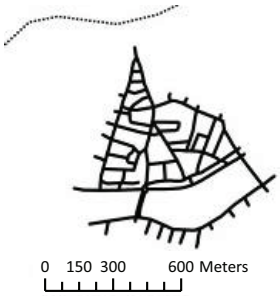
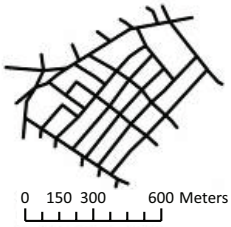
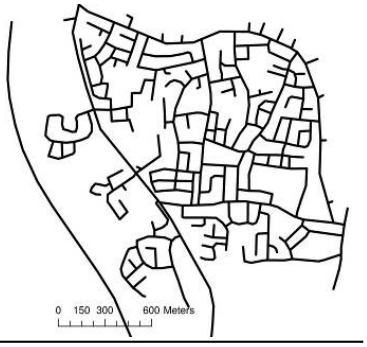
In this context, the study selects five districts in order to cover areas of different densities and development phases of the city, as well as different layouts and built environment typologies. Table 1 indicates the profile of each area regarding its density (inhabitants/ha), population, percentage of older adults, distance from the city centre, public space availability and condition, walkability and public transport. Table 2 presents each district layout.

The main aim of the article is to investigate how the older adults of each district assess their neighbourhood and what is the relation (if any) of this assessment with spatial features and particular characteristics of place (Tables 1 and 2). The PS tool provides the context to examine this condition through face-to-face qualitative in-depth interviews (Magaldi & Berler, 2018).

Table 1. Basic features of the selected case study areas.

Area	Density (inh/ha)	Population	Percentage of population over the age of 65	Distance from the city centre	Public space availability and condition	Walkability	Public transport
1015 Agios Antonios walled city district	44	836	14%	0 km	Extended public space (includes medieval moat park). Modest condition	Increased traffic and on street parking. Limited pavements	In walking distance from the central bus station.
1040 Pallouriotissa core and early suburb	57	2980	21%	1 km	Limited public spaces (include a renovated local square). Good condition	Car dominated and unfriendly local streets	Two lines to the city centre, 25 routes per day each.
1075 Agios Spyridonas city centre	52	188	17%	0 km	No significant public spaces.	Increased traffic and on street parking. Limited pavements	In walking distance from the central bus station.
2123 Aglantzia suburb	18	991	23%	6 km	An extended and good quality national forest park at its southern edge.	Low traffic, walkable streets.	One line, 25 routes per day
2548 Kallithea Dali	10	1950	5%	13 km	Fragmented pocket parks well equipped especially for kids, but with limited green.	Low traffic, walkable streets.	One line, 30 routes per day

Table 2. Brief description and layout of each district.

Area	Typical fabric segment from Google Earth	Layout
1015: Agios Antonios is a terraced medieval fabric, city centre quarter of mixed land uses (retail, workshops and recreation). It also hosts a relatively high percentage of economic immigrants (Statistical Service, 2011).		
1040: Pallouriotissa is an old terraced core combined with an early suburb part of single, semi-detached houses and flat buildings. It is mainly a residential quarter with boundary high streets functioning as neighbourhood centres. It also hosts an increasing percentage of economic immigrants (Statistical Service, 2011).		
1075: Agios Spyridonas was initially an upper-class early suburb, but today it has completely transformed into downtown quarter mainly with flat and office buildings. It has a high extent of mixed land uses (offices, retail and recreation).		
2123: Aglantzia is a late 20th century suburb, mainly of single freestanding houses and small-scale family flat buildings. It is a dominantly residential area attached to the larger national forest park of the city.		
2548: Kallithea is a new 21st century suburb at the city fringe, mainly of single freestanding houses. It is a purely residential area with an incomplete patchy layout.		

Each interview took place in the older adults' own home lasted about one hour and it was recorded. Interviewees did not receive any printed or electronic material; PS was just scheduling and supporting the conversation. The content and the structure of the interview followed the analytic fourteen points of PS tool format, summarised in the following questions (PS, 2018):

1. Moving around (ma): Can I easily walk and cycle around using good-quality routes?
2. Public Transport (pt): Does public transport meet my needs?
3. Traffic and parking (tp): Do traffic and parking arrangements allow people to move around safely and meet the community's needs?
4. Streets and spaces (sp): Do buildings, streets and public spaces create an attractive place that is easy to get around?
5. Natural space (ns): Can I regularly experience good-quality natural space?
6. Play and recreation (pr): Can I access a range of space with opportunities for play and recreation?
7. Facilities and amenities (fa): Do facilities and amenities meet my needs?
8. Work and local economy (wl): Is there an active local economy and the opportunity to access good-quality work?
9. Housing and community (hc): Do the homes in my area support the needs of the community?
10. Social contact (sc): Is there a range of spaces and opportunities to meet people?
11. Identity and belonging (id): Does this place have a positive identity, and do I feel I belong?
12. Felling safe (fs): Do I feel safe here?
13. Care and maintenance (cm): Are buildings and spaces well cared for?
14. Influence and control (if): Do I feel able to take part in decisions and help change things for the better?

Each of the above questions included 5 to 6 clarification questions. In the end of the discussion of each one of the fourteen discussions, the interviewee had to give its place a score from 1 to 7.

PS is suitable not only for older adults, but for any age group, so the results of the article could be easily benchmarked against further intergenerational investigations, especially in relation to the same neighbourhoods. Although PS themes could be seen as an expanded and more detailed version of the Eight Domains of Age-Friendliness (Plouffe, Kalache, & Voelker, 2016). The current research adopts PS because of its applicability, and because as a very recent product it encompasses all the up-to-date virtues and principles for a sustainable place globally (Farr, 2011; Healy, 2010). PS facilitates a structure for conversations about place in a simple and understandable way. It encourages the interviewee to think about the physical elements of a place (for example, its open spaces, buildings, and mobility options) and at the same time the social aspects, such as whether people feel they get care or they have influence and sense of control (Hasler, 2018). By translating the brief into the Greek language and, at the same time, knowing the profile of the interviewees of the Nicosia neighbourhoods, the PS tool been adapted to the place. Furthermore, it provided prompts for discussions and sets the elements of a place in a methodical way, being in this way open and flexible.

In order to select the key participants interviewers did a preliminary visit to each district, talking with residents from house to house covering all local streets and creating wider list of twenty potential interviewees per district. The group of older adults between 65 and 80 years, of Cypriot origin, car drivers and homeowners was the predominant sample, exceeding 70% of the total in every district. Excluding the "old old" group (80+; McCracken & Philips, 2005) and focusing on Cypriot origin, car drivers and homeowners, it neglects a number of cases that might need a special investigation. On the other hand, it covers the majority of older adults in Nicosia. From the twenty potential interviewees, five were selected in order to represent both males and females and have a good spatial distribution in the district.

For findings' validation purposes, five pilot test interviews were conducted initially from the district that was well known from previous research: 1040. According to the findings a number of clarification questions from the in-depth interview guide were modified to adapt the local reality.

5. Results and Discussion

The description of the results follows the points of the spider diagrams of Figure 3, clockwise.

Moving around (ma), walk and cycle has strangely revealed as a paradox in respect to what would normally be expected (Zeitler, Buys, Aird, & Miller, 2012). Denser areas have lower scores, because even the denser districts selected are not walkable or sufficient in covering the majority of the daily needs of a resident, while non-car owners are actually segregated (Savvides, 2018). The score for the city centre and walled city quarters is the lowest, mainly because of the narrow spaces given to pedestrians and the safety issues from the dense and illegal, in many cases on street parking. These quarters are fully car dominated not only because of the residents, but also because of their city centre uses that attract more traffic. In this context, the older adults find it hard to walk around and cycle. Suburban quarters score higher because due to the lack of density, there are less cars in the streets, traffic is low, especially during the morning and evening hours and more street space is provided for walking and cycling.

The elders' vision on public transport (pt) is in all case unexpected. This is because the general use of public transport in Cyprus is below 3%, and because the interviewees are car owners and every day users that rarely

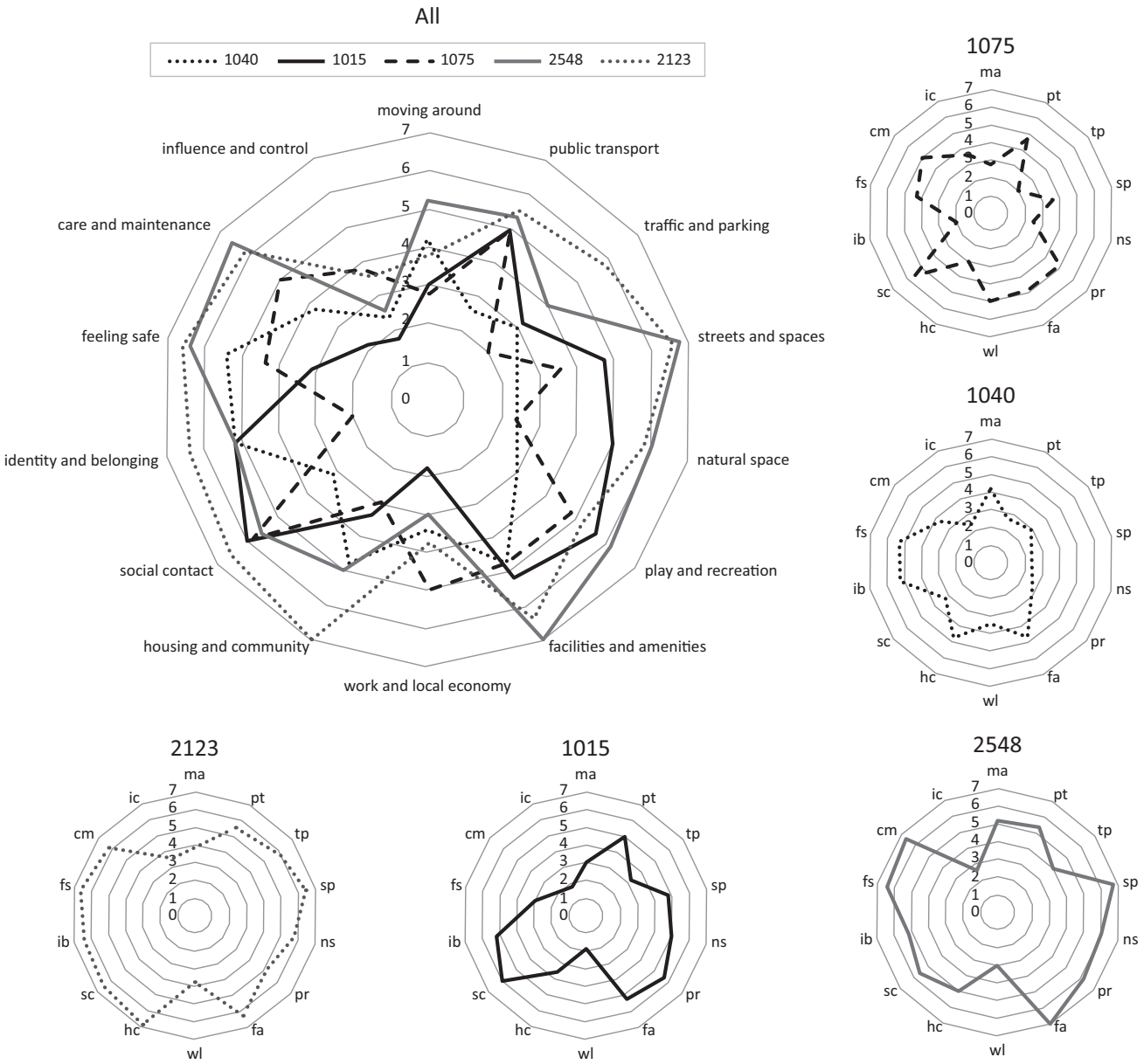


Figure 3. PS marking graphs for the five case study districts.

use public transportation. Relatively high marking could be seen as an attempt of being polite about something they are not able to evaluate. On the other hand, it happens that central areas like 1015 and 1075 have better connections since they are in the city centre and bus routes are radial.

Traffic and parking (tp) are in almost every case an issue and again the score is proportional to density levels. Central areas are congested, while car drivers feel more facilitated in the suburban quarters, again proportional to density. This is a typical result aligned to literature findings, where mobility comes up as a dominant feature (Zeitler & Buys, 2014).

Responses about the condition of streets and spaces (sp) are different for each district. The lowest score characterises the early suburbia (1040), that when developed there was no concern at all with the provision of neighbourhood public spaces. The renewal of the main streets of the old core and the construction of a new public square during the last decade has not succeeded to attract the presence and the esteem of the older adults. The central quarters gave an average score in reference to streets and open spaces, besides the fact that they are both benefit from the proximity of big open spaces and this might happen because their internal street network does not support walkability. Older adults from recently developed districts give higher scores to their streets and open spaces because according to them they are not congested with cars and because lower densities allow access to "more open sky". This aspect is of high importance as indicated in other relevant research (Moudon et al., 2007). It is also important to see that that "walkability" is not a major concern and was not part of the participant's daily routine in contrast to many cases

mentioned in relevant literature (for example, Van Holle et al., 2014).

Natural space (ns) explains the adequacy of public parks, greenery, trees, gardens and soft surfaces. As it might be expected, less dense and central areas indicate a better score. It is interesting that the early suburban district (1040) has the lowest score despite the fact that it includes green private gardens around the detached houses, similarly with the central area (1075) were private gardens are limited. Older adults do not consider just the visual aspects of green as enough of an advantage; they evaluate spaces of green that they can comfortably use. The walled city district (1015) performs better because of the moat (a continuous open space around the Venetian walls of the old city), with extended green spaces. It is unexpected though that late suburbia (2123) adjacent to a national forest park and new suburbia (2548) have the same score. There is maybe a feeling that new, very low-density suburbia creates a feeling of living outside the city in a kind of natural/rural environment.

Again, an unexpected score is the one concerning opportunities for play and recreation (pr). One would expect that in denser and more central districts, the score would be higher due to the increased numbers of cafés, gyms and other facilities where reality shows exactly the opposite. This research so far is unable to interpret this result; a further research is needed to clarify this point with a larger and more representative sample. One possible interpretation is that the typical recreation facilities in the centre of town are not attractive to this social group. Some typical, popular, weekly recreation options of older adults especially for the social group examined here are: dinner in local tavern; coffee at the neighbourhood coffee shop; excursions to the beach, forests the countryside, mountain villages or religious places; walking and hiking; social events at home with family and friends; watching sports games; hunting; religious ceremonies; etc. (Minas et al., 2013; Phellas, 2013). In those terms, the city centre is not considered a popular destination for recreation for the older adults' in Cyprus. The high score at the suburban districts reflects the proximity and accessibility of households to such popular recreation destinations. This kind of leisure and recreational activities play an important role for the older adults' life (Cho & Yi, 2013).

The correlations are also the same regarding assessment of the facilities and amenities (fa). Central areas are still providing more shopping and service opportunities than suburbia, but the retail and services geography has vastly changed during the past years in favour of the suburbs. The most important change is the construction of peripheral malls and super stores/retail parks along peripheral high streets, which caused the shrinking of retail and services in the city centre, and along central commercial streets (Ioannou, 2016). It is normal in a car-oriented society and for a social group characterised by active car drivers to expect a higher level of satisfaction at the suburbia more than the city centre, since high mobility can overcome the limitations that residential, self-selection may impose (Cao, Mokhtarian, & Handy, 2008). In any case, there is no typical or expected answer in how older adults of different abilities perceive amenities as shopping and services (Nyman et al., 2018).

The twenty-five in-depth qualitative interviews revealed that most of the pensioners do not work on a daily basis and they might not be interested to do so (wl). District 1075 (city centre) is an office district that hosts a big number of service-providers and enterprises, owned by or employ older adults, which it is why these districts perform the highest satisfaction rate in the field of work and local economy. On the other hand, it is not expected in an area of high proportion of workshops and traditional shops (which characterises area 1015 of the walled city) to perform with a lower score in terms of working opportunities. It seems that office professions or professionals better educated are indeed more willing to continue working after 65.

The question about housing and the community (hc) intended to clarify the quality and offer of housing opportunities in the neighbourhood and their views on the quality of their own home. Does the quality of their residence reflect their opinion on their neighbourhood? The answers correspond to the age and the condition of houses in each district. The more recently developed areas with newer buildings obtain higher score. District 1075 (city centre) performs badly for two reasons; flats for rent or sale are limited since a number of owners prefer converting buildings into offices. Field observation has shown that a number of the flats are in bad condition because most of them have not been renovated. On the contrary there are dwellings in district 1040 (early suburb) and 1015 (walled city) that are older, but due to several planning policies they have been recently extensively renovated.

The discussion concerning social contacts (sc) investigated the opportunities and frequency of daily or weekly contact with other people. This issue gained the highest scores out of all the fourteen points, in all the investigated districts? This may be an indicator of a generalised solidarity and the strength of the notion of the family which relates to the traditional roots of the particular society. The regular use of private vehicles is perhaps one of the factors that facilitates mobility in every district, making proximity important as a factor for facilitating social contacts. The new suburban district (2548) has the highest score among others, despite the fact that it is a newly developed low-density area, where social networks are not consolidated in space compared to the older ones. A better performance may also occur because of particular conditions such as the fact that the older adults recently moved there in order to live near their children's and support them (or be supported by them). On the contrary, interviews with people of the central areas have revealed that most of their children have moved away and have started their own house-

hold in more distant locations, reducing subsequently the frequency of contacts with their parents. This new trend for the cities of the Mediterranean region has to inform the typical patterns of residential mobility (Arbaci & Malheiros, 2010).

The strength of identity and sense of belonging (ib), including the emotional bond with the place of residence, does not seem to be affected by how old each district is, or from of the duration of residency there. It is possible that the interviewees describe their affiliation with an imaginary, maybe wider district, and not the exact quarter referred to in this research. When participants talked about bonding with a place, they may have been referring to the whole city in a broader sense, as distinct urban functional areas as Nicosia have no legible boundaries across neighbourhoods (Savvides, 2018). In the case of district 1077 (city centre), which is actually a downtown commercial area and not a typical neighbourhood, the score is substantially lower. In this mixed-use city centre area, it is more difficult to build social relations locally. Meeting a neighbour even during a daily morning or afternoon walk, it is not as possible as in the purely residential areas.

The responses relating to the notion of safety (fs) relate with the centrality of the place but also with existence of mixed uses. Normally, the safety performance of downtown areas may vary in respect of the quality of public space (Loukaitou-Sideris & Ehrenfeucht, 2009). At the same time more peripheral and quieter quarters are seen as safer, which is not in any case a rule characterising suburbia. Several interviewees feeling less safe suggested that economic immigrants and marginalised groups that live in central areas and mixed uses districts are the reason for their view. This response corresponds to a conservative stereotype of especially older generation Cypriots (Hadjipavlou, 2003). Nonetheless, it's still puzzling how a dark and empty neighbourhood/suburbian street makes them feel safer than a busy commercial road in the city centre. In some cases, safety is perhaps in an impression linked mostly to traffic; areas with less traffic in low-density suburbia makes them feel safer.

Impressions of how cared and maintained (cm) the environment is have, again, to do with the building age, newly developed areas are performing better, since limited urban renewal projects exist to support older areas. Furthermore, central areas attract soft forms of vandalism, graffiti on walls, damages of street furniture, which is difficult to regularly repair. This kind of attitudes perhaps create stress for the older adults.

Influence and control (if) over there place of living, has to do with the role residents play in minor or major decisions affecting the urban form and structure. This question obtains the minimum score compared to all the other themes. This relates to a general issue characterising the Cyprus planning and development system that has not yet adopted strong public consultation processes, which can inform citizens about future projects, designs and planning decisions and convince citizens that have their views have been considered. (Ioannou, 2016). District 1075 (city centre) has a slightly better performance than the older and more central areas maybe because pilot renewal projects were implemented in the area. Interviewees in this quarter might have been professionally more active and thus involved in decision-making processes than residents of other city centre districts.

6. Conclusions

The results respond to the main hypothesis of the article indicating that the population over the age of 65 assesses its neighbourhood differently according to the spatial features such as density. Older adults in suburban districts are more satisfied than the same age group in most central districts.

Older adults' narratives for quality residential areas are favouring the suburban districts, which is a result of urban sprawl, rather than the group of compact city centre districts. This is not a positive result for the future of the sustainable urban development in Nicosia. In older adults' perception, higher density central areas lack in quality when reviewing twelve out of the fourteen assessed parameters, including streets and spaces, housing and community, care and maintenance, identity and belonging, traffic and parking, safe, as well as natural space compared to the same parameter in the suburban part of the sample. Central areas perform better as places of work and basis for local economy as well as places were residents can influence and control change compared to the suburban ones. Suburban districts are seen as better places to live for the older adults than the more central ones. Older adults find them also more appropriate for walking, something which is understood as an active exercise and not a necessary part of serving daily needs.

The results of the PS assessment confirm a finding that is not only relevant to the older adults but has more intergenerational and wider relevance. In general, suburban low-density neighbourhoods are highly appreciated and more positively accessed by their inhabitants than the central and denser areas (Gordon & Cox, 2012). Older adults in Cyprus today have been at the core of the urbanisation era when they were young who moved to the promising new urban areas, leaving back their rural past. Living conditions at the urbanised areas of the 1960s to 1980s were greatly improved compared to the amenities and daily life of the countryside and the rural villages. The standards of living in the country increased at a higher rate during the suburbanisation period compared to other EU countries (Orphanides & Syrighas, 2012). For this reason, the stereotype of suburban car-depended daily life has deep roots in their minds as a lifestyle virtue.

Nevertheless, a more detailed review reveals that for a number of conditions, centrality and density issues do not play or play a minor role in their assessment as quality places. Social contacts for the group of older adults is more or less spatially deliberated due to the dominant use of private vehicles. The same applies to play

and recreation, as well as work and the local economy, because they relate to the generic habits and the attitudes of daily life of the Cypriot older adults. On the other hand, suburban quarters are clearly preferred in terms of streets and spaces, natural space, facilities and amenities, feeling safety, care, and maintenance.

Finally, issues as influence and control need further clarification. Older adults' assessment of their neighbourhood prioritises the opportunities of social activity than the possibility of an active involvement to the decisions for the future of their place. Literature also underlines the impact of "local opportunity structures", such as mini markets and groceries, cafes and banks, which are clearly appreciated both as means of social participation and as opportunities of involvement (Buffel et al., 2014a). In our cases, it seems that there is no preference for these places to exist as part of the neighbourhood structure or as external destinations outside of them.

Marked divergence among districts in terms of their quality assessment is generally marginal. This is because actual differences in terms of density and layout among Nicosia quarters if compared to the diversity of other European or US cities are limited (Farr, 2011). With the exemption of the medieval walled city district (1015) all other four districts are products of the suburban boost of the second half of the 20th century (Ioannides, 2018). At the same time, the interviewees' social profile is almost the same.

It is clear that, for a number of reasons, older adults favour less the denser and central areas than the suburban and fridge areas. Residential mobility is limited for most with limited possibilities to leave a deprived district. At the same time, the attractiveness of the central areas for other social groups is also reduced. Limited residential mobility and ageing in place are fundamental elements for most of the residential areas in Cyprus (Minas et al., 2013). The current imbalance between centre and periphery may affect them. Encouraging people living in central city areas needs to be supported by more incentives and high value services in order older adults to feel as happy as their counterparts in the suburbs. Enhancing the quality of life in denser and central areas where the older adults people perceive as deprived will support and enable sustainable urban development and compacts city initiatives.

In parallel, planning concerns and investment in public projects have to increase their emphasis in favour of for central neighbourhoods in order to support equity and balanced urban development. Even in the cases of recent urban renewal projects in the city centre, these projects fail to integrate and have minor influence on its inhabitants' place satisfaction. Especially in the case of Cyprus, were the planning and real estate practice facilitates suburban expansion, planning has to support further the central and denser areas in terms of upgrading streets and spaces, providing natural space, creating more facilities and amenities, improving the safety notion and providing incentives for care and maintenance. Enhancing age friendly districts in Cyprus will prevent urban districts from decay and secure diversity, and the liveability of all city quarters.

Within this frame, there is a need to compare further collected data and results in the same fields for more types of population groups and at the same selected areas. Furthermore, research around the spatial living conditions of older adults in Cyprus can be expanded to include different types of districts like rural or tourist areas and also more diverse social groups such as non-car owners, immigrants etc. Finally, the current approach can support further research on issues concerning the suburbia and the design of planning policies toward liveable denser central neighbourhoods.

Acknowledgments

I would like to thank Konstantinos Xenofondos and Marilia Yiallourou, Frederick University graduates, for their support in interviewing elders from the neighbourhoods of Nicosia. Special thanks to my colleague Lora Nicolaou for the decisive input and her creative remarks.

Conflict of Interests

The author declares no conflict of interests.

References

Ahn, M. (2017). Introduction to special issue: Aging in place. *Housing and Society*, *44*, 1–2.

Arbaci, S., & Malheiros, J. (2010). De-segregation, peripheralisation and the social exclusion of immigrants: Southern European cities in the 1990s. *Journal of Ethnic and Migration Studies*, *36*(2), 227–255.

Buffel, T., De Donder, L., Phillipson, C., Dury, S., De Witte, N., & Verté, D. (2014a). Social participation among older adults living in medium-sized cities in Belgium: The role of neighbourhood perceptions. *Health Promotion International*, *29*(4), 655–668.

Buffel, T., McGarry, P., Phillipson, C., De Donder, L., Dury, S., De Witte, N., . . . Verté, D. (2014b). Developing age-friendly cities: Case studies from Brussels and Manchester and implications for policy and practice. *Journal of Aging & Social Policy*, *26*(1/2), 52–72.

Butler, C. (2005). Reading the production of suburbia in post-war Australia. *Law Text Culture*, *9*, 11–33.

Cao, J., Mokhtarian, P. L., & Handy, S. L. (2008). Examining the impacts of residential self-selection on travel behavior: A focus on methodologies. *Transportation Research*, *29*(3), 359–395.

Cho, G., & Yi, E. (2013). Analysis on leisure patterns of the pre-elderly adults. *Journal of Exercise Rehabilitation*, *9*(4), 438–445.

DTPH. (2011). *Nicosia local plan*. Nicosia: Ministry of Interior, Department of Town Planning and Housing.

Eurostat. (2014). Housing conditions. *EC Europa*. Retrieved from http://ec.europa.eu/eurostat/

statistics-explained/index.php/Housing_conditions
Eurostat. (2017). Population age structure indicators. *EC Europa*. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Population_age_structure_indicators,_1_January_2017_(%25).png
Farr, D. (2011). *Sustainable urbanism: Urban design with nature*. Boston, MA: Wiley.
Gammage, G. (2016). *The future of the suburban city*. Washington, DC: Island.
Gordon, P., & Cox, W. (2012). Cities in western Europe and the United States: Do policy differences matter? *Annals of Regional Science*, *48*, 565–594.
Hadjipavlou, M. (2003). Inter-ethnic stereotypes, neighbourliness, and separation paradoxes and challenges in Cyprus. *Journal of Mediterranean Studies*, *13*(2), 281–318.
Hasler, K. (2018). Place standard: A practical tool to support the creation of healthier places. *European Journal of Public Health*, *28*(4), 12.
Healy, P. (2010). *Making better places: The planning project in the twenty-first century*. Basingstoke: Palgrave MacMillan.
Hooper, P., Matthew, K., Foster, S., & Giles-Corti, B. (2015). The building blocks of a 'liveable neighbourhood': Identifying the key performance indicators for walking of an operational planning policy in Perth, Western Australia. *Health & Place*, *36*, 173–183.
Ioannides, K. (2018). A brief review of the evolution of planning in Cyprus from the end of the World War II to the present. In N. Patsavos & J. Pissourios (Eds.), *The Cypriot city paradigm. Urbanity issues in design and planning* (pp. 49–74). Athens: Domes.
Ioannou, B. (2016). Post-colonial urban development and planning in Cyprus: Shifting visions and realities of early suburbia. *Urban Planning*, *1*(4), 79–88.
Kouta, C., Kaite, C., Papadopoulos, I., & Phellas, C. (2015). Evaluation of home care nursing for older adults people in Cyprus. *International Journal of Caring Sciences*, *8*(2), 376–384.
Lachapelle, P. (2008). A sense of ownership in community development: Understanding the potential for participation in community planning efforts. *Community Development*, *39*(2), 52–59.
Lee, J., Hong, S., & Park., Y. (2017). Predictable surprise: The spatial and social morphology of aging suburbs in the U.S. metropolitan areas. *Sustainability*, *9*, 458.
Loukaitou-Sideris, A., & Ehrenfeucht, R. (2009). *Sidewalks. Conflict and negotiation over public space*. London: MIT.
Magaldi, D., & Berler, M. (2018). Semi-structured Interviews. In V. Zeigler-Hill & T. Shackelford (Eds.), *Encyclopedia of personality and individual differences* (pp. 1–16). Cham: Springer.
McCracken, K., & Philips, D. (2005). International demographic transitions. In G. Andrews & D. Philips (Eds.), *Ageing and place. Perspectives, policy, practice* (pp. 36–60). Oxon: Routledge.
Minas, C., Mavrikiou, P., & Jacobson, D. (2013). Home-ownership, family and the gift effect: The case of Cyprus. *Journal of Housing and the Built Environment*, *28*, 1–15.
Morris, W. (1959). *Planning report*. Nicosia: Department of Town Planning and Housing.
Moudon, A., Lee, C., Cheadle, A., Garvin, C., Johnson, D., Schmid, T., . . . Lin, L. (2006). Operational definitions of walkable neighborhood: Theoretical and empirical insights. *Journal of Physical Activity and Health*, *3*(1), 99–117.
Moudon, A., Lee, C., Cheadle, A., Garvin, C., Johnson, D., Schmid, T., & Weather, R. (2007). Attributes of environments supporting walking. *American Journal of Health Promotion*, *21*(5), 448–459.
Moulaert, T., Wanka, A., & Drilling, M. (2017). *Mapping the relations between age, space, and exclusion*. Oslo: Rosenet COST Action.
Neocleous, G., & Apostolou, M. (2016). Happiness in and out of nursing homes: The case of Cyprus. *International Social Work*, *59*(4), 533–544.
Nyman, S., Barker, A., Haines, T., Horton, K., Musselwhite, C., Peeters, G., . . . Wolf, J. (2018). *The Palgrave handbook of ageing and physical activity promotion*. London: Palgrave Macmillan.
Orphanides, A., & Syrighas, G. (2012). *The Cyprus economy. Historical review, prospects, challenges*. Nicosia: Central Bank of Cyprus.
Panayiotopoulos, P. (2005). The globalisation of care: Filipina domestic workers and care for the older adults in Cyprus. *Capital & Class*, *29*(2), 99–134.
Phellas, C. (2013). Quality of life and older people: An empirical study amongst older Cypriots. In C. Phellas (Ed.), *Aging in European societies. Healthy aging in Europe* (pp. 221–236). New York, NY: Springer.
Place Standard. (2018). Place standard: How good is our place? *Place Standard*. Retrieved from https://placestandard.scot/#/home
Plouffe, L., Kalache, A., Voelcker, I. (2016). A critical review of the WHO age-friendly cities methodology and its implementation. In S. Garon & T. Moulaert (Ed.), *Age-Friendly Cities and Communities in International Comparison* (pp. 19–36). Basel: Springer.
Savvides, A. (2018). Housing and transit integration prospects for Cyprus. In N. Patsavos & J. Pissourios (Eds.), *The Cypriot city paradigm. Urbanity issues in design and planning* (pp. 175–196). Athens: Domes.
Statistical Service. (2011). *Population and social condition: Population census*. Nicosia: Republic of Cyprus Ministry of Finance.
Troisi, J. (2013). "Ageing in place" in the Maltese islands. In J. Troisi & H. Von Kontratowitz (Eds.), *Ageing in the Mediterranean* (pp. 273–294). Bristol: Policy Press.
Trudeau, D. (2018). Sustaining suburbia through new urbanism: Toward growing, green, and just suburbs? *Urban Planning*, *3*(4), 50–60.
United Nations. (2018). *Tracking progress towards inclusive, safe, resilient and sustainable cities and human*

settlements. New York, NY: Routledge.

Van Cauwenberg, J., De Donderd, L., Clarys, P., De Bourdeaudhuij, I., Buffel, T., De Witted, N., . . . Deforche, B. (2014). Relationships between the perceived neighborhood social environment and walking for transportation among older adults. *Social Science & Medicine*, *104*, 23–30.

Van Holle, V., Van Cauwenberg, J., Van Dyck, D., Deforche, B., Van de Weghe, N., & De Bourdeaudhuij, I. (2014). Relationship between neighborhood walkability and older adults' physical activity: Results from the Belgian environmental physical activity study in seniors (BEPAS Seniors). *International Journal of Behavioral Nutrition and Physical Activity*. https://doi.org/10.1186/s12966-014-0110-3

Zeitler, E., Buys, L., Aird, R., & Miller, E. (2012). Mobility and active ageing in suburban environments: Findings from in-depth interviews and person-based GPS tracking. *Current Gerontology and Geriatrics Research*, *3*, 257186.

Zeitler, E., & Buys, L. (2014). Mobility and out-of-home activities of older people living in suburban environments: 'Because I'm a driver, I don't have a problem'. *Ageing & Society*, *35*(4), 785–808.

About the Author

Byron Ioannou teaches Planning, Urban Design and Sustainable Built Environment at Frederick University and the Open University of Cyprus. He studied Architecture (Dip. Eng.) and Urban and Regional Planning (MSc and PhD) at the National Technical University of Athens. He has also studied Planning Law (PG Cert.) at Leeds Beckett University. During his early career, he worked as a teaching and research staff in Greek Universities, being also a visiting scholar in institutions worldwide. He has both professional and research experience in planning, urban design and development issues. His current research focuses on the environmental aspects of planning, density and sprawl, public space and urban green, planning law and inclusive urban development. He coordinates the Urban Planning and Development Unit at Frederick University (www.frederick.ac.cy/updu).

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 31–42
DOI: 10.17645/up.v4i2.1892

Article

Overcoming Barriers to Livability for All Ages: Inclusivity Is the Key

Xue Zhang [1,*], Mildred E. Warner [2] and Stephanie Firestone [3]

[1] Regional Science, Cornell University, Ithaca, NY 14850, USA; E-Mail: xz435@cornell.edu
[2] City and Regional Planning, Cornell University, Ithaca, NY 14850, USA; E-Mail: mwarner@cornell.edu
[3] Policy, Research, and International–PRI, AARP, Washington, DC 20049, USA; E-Mail: sfirestone@aarp.org

* Corresponding author

Submitted: 14 December 2018 | Accepted: 18 February 2019 | Published: 18 June 2019

Abstract
The rapid pace of population aging in cities around the world demands that planners design communities that are livable for people of all ages and abilities. In 2017, to assess progress toward this end, AARP and the International Division of the American Planning Association conducted a global survey of planners on their efforts to incorporate a livable-community-for-all-ages approach into their work. The survey of 559 planners measured motivators, barriers, strategies for engagement and practices facilitating planners' work on livable communities for all ages (LCA). Using the international survey, we analyze factors driving local governments' actions to advance LCA, and factors driving outcomes incorporating a livable-community-for-all-ages approach in planning practices. We show how these differ between the US and non-US respondents, including how US suburbs and rural areas lag in actions toward LCA. Regression results show that local motivations such as awareness of substantial growth in older populations is a primary factor motivating local governments to take more actions. While physical design is a critical part of the solution, we find that facilitating practices and community engagement in the process are key to advancing planning for age-friendly communities. Additionally, communities that practice more traditional approaches to planning and have limited resources actually exhibit a higher level of LCA outcomes. This suggests that focusing on community engagement and facilitating practices could be a promising approach to incorporating an all age lens in planning practices.

Keywords
age-friendly community; aging; government; inclusive engagement; livability; planning

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

The world population is rapidly getting older because of lower fertility rates and longer lifespans. The population aged 65 and over will double from 2025 to 2050 (He, Goodkind, & Kowal, 2016). The increase in older populations in towns, suburbs and cities around the world highlights the need to make communities livable for people of all ages and abilities. A livable-community-for-all-ages approach involves planning to help "communities ensure appropriate physical infrastructures (e.g., housing, transportation, built environment, access to healthy foods) and social infrastructures (e.g., health care, support services, engagement opportunities) for residents throughout an expanding life course" (Firestone, Keyes, & Greenhouse, 2018, p. 20). The idea behind a livable-community-for-all-ages approach has been spearheaded by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and, in the US, by AARP and the American Planning Association (APA). The first guidance in this space, the WHO's guide to building global age-friendly cities, recognized the importance of optimizing the opportunity for health, participation, and security to increase the quality of life for older adults

(WHO, 2002, 2007). In 2005, AARP's report *Livable Communities: Creating Environments for Aging* emphasized the importance of affordable housing, supportive community services, and convenient mobility to meet the needs of older adults (Kochera, Straight, & Guterbock, 2005). UNICEF's 2004 and its most recent 2018 guide for child-friendly cities also emphasized actions consistent with a livable-community-for-all-ages approach. All three entities continue to refine and promulgate their guidance.

Local governments are engaging in designing programs and service delivery in response to the needs of older adults (Farber, Shinkle, Lynott, Fox-Grage, & Harrell, 2011; Lehning, 2012). Planning and design play an important role in decreasing the barriers often posed by zoning and increasing residents' accessibility to community services (Firestone et al., 2018; Warner, Xu, & Morken, 2017). The APA's *Aging in Community Policy Guide* encourages planning approaches to land use, housing, transportation, and social services that comprehensively enhance the well-being of residents across the lifecycle (APA, 2014).

In this article we explore the factors that lead planners to advance actions toward livable communities for all ages (LCA) and the factors driving the outcomes of incorporating a livable-community-for-all-ages approach in planning practices at the local government level. Using an international survey of planners conducted in 2017, we are able to differentiate actions and outcomes between the US respondents and those in other countries around the world. Our survey results highlight the social layer—engagement and facilitating practices—in helping communities become more age-friendly.

2. Literature Review

Local governments play an important role in building age-friendly communities (Lui, Everingham, Warburton, Cuthill, & Bartlett, 2009). The WHO Global Network of Age-Friendly Cities and Communities[1] has over 500 members in 37 countries. The AARP Network of Age-Friendly States and Communities has more than 310 community and three state members. Although age-friendly cities focus on developing supportive services for older adults, WHO's eight domains of age-friendly communities overlap with the characteristics of UNICEF's child-friendly cities, such as health services, safe outdoor spaces, participation and social inclusion (UNICEF, 2004; WHO, 2007). Age-friendly initiatives recognize the possibility of implementing multigenerational approaches that can facilitate greater functional capacity for people from early life to older age (Buffel & Phillipson, 2016; Fitzgerald & Caro, 2014; Warner & Homsy, 2017; Warner, Xu, & Morken, 2017). A multigenerational approach requires attention to physical design, services (both formal and informal), cross-agency collaboration and participation of families with children and older adults in ensuring community planning to meet their needs (Choi & Warner, 2015; Severcan, 2015a; Warner, 2017; Warner & Zhang, 2019).

According to a 2018 AARP survey of home and community preferences, while 76% of Americans aged 50 and older say they prefer to remain in their current residence and 77% would like to live in their community as long as possible, just 59% anticipate they will be able to stay in their community, either in their current home (46%) or a different home within their community (13%; AARP, 2018). This significant gap requires government interventions around land use, transportation, and housing (Ball, 2004; Farber et al., 2011; Lehning, 2012; Winick & Jaffe, 2015). Lehning (2014) finds that most local and regional governments in age-friendly communities in the San Francisco Bay Area use more incentives for mixed use neighborhoods and public transportation. Numerous studies have emphasized the importance of collaboration between local governments and other entities, such as federal government, business, and non-profit organizations in building age-friendly communities (Glicksman, Clark, Kleban, Ring, & Hoffman, 2014; Greenfield, Oberlink, Scharlach, Neal, & Stafford, 2015).

Strategic and land use planning creates the leverage points to build age-friendly communities. Based on a US national survey on health-related services in 2010, Warner, Xu and Morken (2017) found that planning is the key to increase health-related services for older adults, even in rural areas lagging in community services. Winters et al. (2015) surveyed older adults living in downtown Vancouver, Canada and found walkable neighborhood planning and design are key to increasing older adults' mobility and supporting them to "age in place". Survey responses from members of the European Healthy City Network also show that integrating age-friendly strategies in planning could improve the independence of older adults and increase their contribution to the social and economic development of cities (Green, 2013). A recent special issue of the Italian planning journal *iQuaderni di Urbanistica Tre* (Andriola & Muccitelli, 2017) emphasizes the importance of services, public space, mobility and participation at the neighborhood scale. Severcan (2015a, 2015b) has given specific emphasis to strategies to engage children and how these can increase sense of place in both rural and urban contexts in Turkey (Sancar & Severcan, 2010).

Building age-friendly communities is challenging. Lehning and Greenfield (2017) summarize recent studies on age-friendly initiatives, and indicate three barriers: lack of knowledge, funding, and practical guidance. Emlet and Moceri (2012) examine over 5000 young adults and older adults' opinions on age-friendly communities in the US and find that lack of interactions with organizations and accessible transportation are primary barriers to building social connections in age-friendly communities. Also, a study on age-friendly communities in Canada indicates that accessibility, transportation, in-

[1] For more information see: who.int/ageing/age-friendly-environments

formation and affordability are factors affecting people's ability to age in place (Novek & Menec, 2014). Kendig, Elias, Matwijiw and Anstey (2014) assess age friendly initiatives in Australia and argue that governments' efforts on building age-friendly communities are restricted by political uncertainty and fiscal stress. Pratt and Warner (2018) examine rural communities in Ecuador and find that investments in public infrastructure enhance families' well-being, but lack of political voice and access to finance limits the potential for active citizenship. Improving engagement and civic participation, which is the main factor cited in all guidelines for building age-friendly communities (APA, 2014; Lui et al., 2009; UNICEF, 2018; WHO, 2007), could help address these barriers. Engagement could help increase social capital and inclusion (Buffel & Phillipson, 2016; Greenfield et al., 2015; Lehning, 2014), and community services (Warner, Homsy, & Morken, 2017; Warner, Xu, & Morken, 2017). Based on a national survey of 1500 US communities in 2010, Warner, Homsy and Morken (2017) found that public planning and engagement of seniors in the planning process helps private entrepreneurs see new market possibilities in serving the needs of older adults.

Currently, age-friendly planning and design are decidedly urban-focused. Suburban and rural communities lag in age-friendly built environment and services around the world (Fitzgerald & Caro, 2014; Glasgow & Brown, 2012; WHO, 2007). The US suburb, which was designed after World War II for young families with children, is both aging (Lee, Hong, & Park, 2017) and becoming more ethnically diverse among younger families (Micklow & Warner, 2014). Traditional suburban design needs to transform to better meet the needs of young families and older adults. However, the built environment in older suburbs does not match the needs of older adults in terms of housing and transportation (Hanlon, 2008; Lee et al., 2017). Young and Keil (2014) study the interaction between urban and suburban in Canada and find that lack of public transportation and housing affordability are the main infrastructure challenges in the inner ring suburbs. Canada has a large proportion of seniors living in rural areas (Plouffe & Kalache, 2011), but less attention has been paid to building age-friendly rural communities (Lui et al., 2009). In the US, nonmetropolitan areas have a higher percentage of older adults (18%) than metropolitan areas (14%) according to the five-year American Community Survey estimates of 2012–2016 (US Census Bureau, 2017). Low density suburban and rural areas have the fastest growth rate of older adults (Joint Center for Housing Studies, 2018), but those areas often cannot follow urban-biased design guidelines based on New Urbanist principles of density, walkability, and mixed-use (Duany & Plater-Zyberk, 2009; Howe, 2012). Also, suburban and rural communities usually provide lower levels of services (Warner, 2006), especially for older adults (Brown, Glasgow, Kulcsar, Sanders, & Thiede, 2018; Morken & Warner, 2012; Thiede, Brown, Sanders, Glasgow, & Kulcsar, 2017; Warner & Morken, 2013). In 2006, the group of Federal, Provincial and Territorial Ministers Responsible for Seniors in Canada published *Age-Friendly Rural and Remote Communities: A Guide*, which discusses the eight domains of WHO's age-friendly city from the rural perspective (Gallagher, Menec, & Keefe, 2006). The guide recognizes the diversity of rural areas and the importance of collaboration and partnerships.

Most research focuses on approaches to building age-friendly communities but omits factors driving actions by local governments and planners, the barriers to implementing age-friendly approaches, and the evaluation of outcomes. A recent US study, based on a nationwide survey, finds participation, planning and zoning are key to ensuring better built environment outcomes for both children and older adults, even in suburban and rural areas (Warner & Zhang, 2019). Lui et al. (2009) review the international journals on age-friendly communities from 2005 to 2008 and identify three gaps in the literature: urban-biased research which lacks study of rural areas, the balance between improving social inclusion and protecting individual diversity, and the evaluation of age-friendly approaches and outcomes. This article addresses the first and third gaps. We examine the differences among urban, suburban, and rural local government actions, and the incorporation of age-friendly considerations in planning practices.

3. Data

Study data were obtained from the 2017 International Planner Engagement Survey on LCA. In this survey LCA are defined as:

> Communities that are intentional about being great places for people to grow up AND grow old, by ensuring appropriate physical infrastructures (housing, transportation, built environment, access to healthy foods) and social infrastructures (i.e., health care, support services, engagement opportunities) for residents throughout an expanding life course. Sometimes LCA is referred to by other names such as Age-friendly Communities or Lifelong Communities.

The survey was conducted by AARP, the APA International Division, Cornell University and Arup International consulting firm. The survey was distributed through partner organizations and professional networks of planners and reached planners from 33 countries. We received responses from 559 planners of which 72% were from the US and 28% were from other countries (9% from Australia and New Zealand, 9% from Europe, 6% from Canada, and 4% from the Global South: Latin America, Asia, Africa, and the Middle East). Survey respondents from the US represent smaller communities and more suburbs compared to other countries. The majority of survey respondents are from the public sector and have worked as planners for five to twenty years. We separate

the sample into a US subsample and non-US subsample due to the large number of responses from the US.

The US survey respondents reported their local governments took fewer actions to advance LCA (variable "LCA actions") and had a lower extent of LCA incorporation (variable "LCA outcomes") than planners from the non-US sample (Table 1). LCA actions and outcomes are separated based on factor analysis. LCA outcomes are measured by the extent of incorporation of LCA considerations in eleven planning areas on a scale from 1 ("not at all") to 5 ("a great extent"). The eleven planning areas were: community planning, parks and public spaces, community and health services, and civic engagement/participation, land-use planning/zoning, economic development, housing, transportation, buildings and public facilities, resilience, access to healthy food and physical activity.

We combined all the elements to create an outcome indicator (alpha 0.9). More than 50% of US respondents reported that LCA was incorporated into each planning practice at the median extent (median score = 3). More than 50% of planners from other countries indicated that the LCA approach was incorporated in the areas of community planning, parks and public spaces, community and health services, and civic engagement at a larger extent (median score = 4), and the incorporation of the LCA approach in other planning practices at the median level (median score = 3). Thus, the non-US respondents report a higher level of LCA outcomes.

LCA actions are measured by the total number of local government actions to advance LCA (Table 1, alpha 0.8). The most common actions are walkability and accessibility assessment (38%) and including the LCA approach in land use and transportation plans (33%). The non-US sample has a higher level of LCA actions. The adoption of a policy to improve aging residents' quality of life is the main LCA action in non-US countries (32%), compared to the US (19%). Local governments in other countries are more likely to use financial resources (25%) and outreach events (20%) to support LCA than the US local governments (12% financial resources and 13% outreach events). Only 8% of planners reported that local governments signed on to a formal LCA program, but the number is significantly higher in the non-US sample (non-US sample: 12% compared to US sample: 6%). There is not a significant difference between US and other countries in auditing the impact of community programs and services on older adults (17%), or in developing a citizen advisory or steering committee for LCA (14%).

4. Model

We test two dependent variables—LCA actions and LCA outcomes. Our independent variables are motivations,

Table 1. Dependent variables. Source: International Planner Engagement Survey (AARP, 2017).

LCA outcomes: The extent an all ages lens has been incorporated into your planning practice, scale from 1 (not at all) to 5 (a great extent). Median values overall are shown below.	US	Non-US
• Community planning (4)	3	4
• Parks & public spaces (4)	3	4
• Community & health services (3)	3	4
• Civic engagement/participation (3)	3	4
• Land-use planning/zoning (3)	3	3
• Economic development (3)	3	3
• Housing (3)	3	3
•Transportation (3)	3	3
• Buildings & public facilities (3)	3	3
• Resilience (3)	3	3
• Access to healthy food and physical activity (3)	3	3
LCA actions: Local governments actions to advance LCA (% yes overall)	US	Non-US
• Performed a walkability/accessibility assessment (38%)	39%	35%
• Incorporated LCA considerations in comprehensive land use/long term transportation or other major plan (33%)	31%	36%
• **Adopted an actual policy that directly improves the quality of life for aging residents (22%)**	**19%**	**32%**
• Audited community programs and services for their impact on older adults (17%)	16%	20%
• **Allocated financial resources to support the development of LCA (15%)**	**12%**	**25%**
• **Hosted LCA outreach events (15%)**	**13%**	**20%**
• Developed a citizen advisory or steering committee for LCA (14%)	12%	18%
• **Signed on to a formal LCA program, such as WHO Global Network of Age-friendly Cities and Communities, or joined a national or regional network (8%)**	**6%**	**12%**

Notes: Bolded elements are statistically significantly different between the US and non-US samples; T-test significance $p < .05$; N = 559 planners, US = 405, non-US = 154.

barriers, facilitating practices, and engagement strategies. We also control for community size, the sector where the respondent works (public or not), and metro status. We expected that communities with more motivations, fewer barriers, more facilitating practices and strategies of engagement will have more LCA actions. We expect more LCA actions will lead to more LCA outcomes. All data are from the 2017 International Planner Engagement Survey. Model equations are shown below:

LCA actions = f {motivations, barriers, engagement strategies, facilitating practices, controls}

LCA outcomes = f {LCA actions, motivations, barriers, engagement strategies, facilitating practices, controls}

4.1. Motivations

The survey included yes-no questions on eleven motivations for planning LCA. We conducted factor analysis on the motivations, which differentiated them into three groups: local motivation, business motivation, and external opportunity or shock motivation (Table 2). The most common local motivations are: "growth in aging population" (28%), "priority identified in a community planning process" (19%), "policy opportunity" (16%), and "local grassroots advocacy" (14%). Business motivations include: "staff interest or expertise" (13%), "opportunity to leverage a project already underway" (7%), and "pressure from business leaders" (1%). The external opportunity or shock motivations include: "national/regional policy mandates" (7%), "new funding or programmatic opportunity" (7%), and "an incident such as an older pedestrian fatality at a dangerous crosswalk" (3%). The motivation, "pressure from local officials" (6%), evenly loaded on local motivation and external opportunity or shocks. We expect communities ranking higher on motivations will engage in more LCA actions and achieve more LCA outcomes.

4.2. Barriers

Planners were asked to indicate the barriers limiting their planning for LCA. Respondents reported barriers in a "yes or no" question format (coded yes = 1 and no = 0). Through factor analysis we found that barriers are grouped into four categories: resource barriers, traditional barriers, knowledge barriers, and political barriers (Table 3). Resource barriers include the most common barriers: "lack of financial resources" (24%), and "lack of time" (19%). Traditional barriers include: "not a high priority" (20%), "political directives/mandate from elected officials" (12%), and "narrow focus of work on technical issues" (12%). Knowledge barriers include: "lack information on needs of all ages" (15%), "lack knowledge or tools to plan for LCA" (15%). The barriers, "not engaged with the people who work on these issues" (13%), and "focus on traditional planning approaches" (22%) loaded similarly on traditional barrier and knowledge barrier. Political barriers include: "ageist bias" (3%), "gender bias" (1%), "department policies" (5%), and "workplace leaders are not supportive" (6%). We note that political barriers are not reported by many respondents. We expected that communities facing more barriers will have fewer LCA actions or LCA outcomes.

4.3. Facilitating Practices

The survey measured seven practices facilitating planners' work on LCA (Table 4). Respondents were asked to select all the practices facilitating their work. The most common is support from colleagues (22%). Compared to the US planners, a higher percentage of planners from

Table 2. Factor analysis of LCA motivations. Source: International Planner Engagement Survey (AARP, 2017).

Motivations: Local governments' motivation in making planning LCA a part of their practice (% yes overall)	**Factor Loadings**		
	Local	Business	External or shocks
Substantial growth in aging population and need to better serve this segment of the population (28%)	**0.76**	0.08	0.21
Priority identified during a community planning process (19%)	**0.8**	0.13	0.01
A policy window that presented an opportunity (e.g., comprehensive/ transportation/pedestrian planning process) (16%)	**0.7**	0.02	0.1
Local grassroots advocacy around an issue (14%)	**0.65**	−0.21	0.23
Building on interest or expertise of staff (13%)	**0.54**	**0.41**	0.08
An opportunity to leverage a project or program already underway (7%)	**0.43**	**0.34**	0.29
Pressure from local officials (6%)	**0.39**	−0.09	**0.4**
Policy/ies (at national/regional/local/company level) that mandate this perspective (7%)	0.21	0	**0.63**
An incident such as an older pedestrian fatality at a dangerous crosswalk (3%)	0.09	−0.01	**0.74**
A new funding or programmatic opportunity (7%)	0.08	0.36	**0.66**
Pressure from business leaders (1%)	0.03	**0.83**	0.06

Notes: Bold numbers show elements that primarily load on that factor. Factor loading after varimax rotation; N = 559 planners.

Table 3. Factor analysis of LCA barriers. Source: International Planner Engagement Survey (AARP, 2017).

Barriers: catalysts/motivators for planners to participate in planning LCA? (% yes overall)	**Factor Loadings**			
	Traditional barrier	Knowledge barrier	Political barrier	Resource barrier
Not a high priority (20%)	**0.63**	0.21	0.03	0.19
Not engaged with the people who work on these issues (13%)	**0.58**	**0.47**	−0.03	−0.14
Narrow focus of work on technical issues (12%)	**0.71**	0.1	0.09	0.15
Political directives/mandate from elected officials (12%)	**0.58**	−0.1	0.29	0.31
Focus on traditional planning approaches (22%)	**0.5**	**0.46**	0.15	0.14
Workplace leaders are not supportive (6%)	**0.38**	0.15	**0.44**	0.15
Lack of information on needs of all age populations (15%)	0.06	**0.83**	0.1	0.17
Lack of knowledge, skills, or tools to plan LCA (15%)	0.14	**0.78**	0.05	0.16
Department policies (5%)	0.18	−0.04	**0.7**	0.08
Ageist bias (3%)	0.03	0.18	**0.63**	0.14
Gender bias (1%)	0.01	0.11	**0.81**	−0.03
Lack of financial resources (24%)	0.15	0.23	0.14	**0.76**
Lack of time (19%)	0.08	0.11	−0.03	**0.83**

Notes: Bold numbers show elements that primarily load on that factor; factor loading after varimax rotation; N = 559 planners.

Table 4. Facilitating practices and engagement strategies. Source: International Planner Engagement Survey (AARP, 2017).

Facilitating practices: Practices facilitating planners' work on LCA (% yes overall)	US	Non-US
• Colleagues support an all ages approach to planning (22%)	21%	22%
• **Workplace policies encourage an all ages approach to planning (14%)**	**11%**	**22%**
• **Periodic focus group interactions with aging population (11%)**	**9%**	**18%**
• **Special project funding for LCA (7%)**	**5%**	**12%**
• Elected officials holding meetings with LCA focus (5%)	4%	7%
• Client prioritizes LCA (4%)	4%	4%
• **Release time to work on LCA (3%)**	**1%**	**7%**
Engagement strategies: Strategies most effective to engage planners to plan LCA (% yes overall)	US	Non-US
• **Engaging elected officials, legislators to talk about LCA (32%)**	**35%**	**25%**
• Hosting training or seminars on planning LCA (27%)	29%	23%
• Hosting participatory meetings with planners and community residents on LCA (25%)	25%	24%
• Providing written information on changing demographics and related issues (20%)	21%	18%
• Undertaking tactical urbanism activities (20%)	20%	22%
• Launching public campaigns or advertisements about LCA (18%)	19%	18%
• Participating in a community-wide LCA initiative (17%)	15%	21%
• Inviting planners to speak at community meetings on LCA (16%)	16%	18%

Notes: Bolded elements are statistically significantly different between the US and non-US samples; T-test significance $p < .05$; N = 559 planners, US = 405, non-US = 154.

other countries reported that workplace policy (non-US: 22%, US: 11%), focus group interactions with the aging population (non-US: 18%, US: 9%), project funding (non-US: 12%, US: 5%), and time (non-US: 7%, US: 1%) can improve their work on LCA. Other facilitating practices show no difference between US and non-US respondents, including elected official holding meetings with LCA focus (5%) and client prioritizes LCA (4%). We added up the total number of selected elements to create the facilitating practices indicator (alpha: 0.7). We hypothesize more facilitating practices are related to more LCA actions and LCA outcomes.

4.4. Engagement Strategies

Planners were asked about the effectiveness of eight strategies encouraging them to engage in LCA (Table 4). The most effective strategy is "engaging elected officials, legislators to talk about LCA" (32%), which was especially noted by the US planners (US: 35%, non-US: 25%). A quarter of respondents reported that trainings, seminars, and participatory meetings are effective to get planners to plan for LCA. A fifth of planers indicated that providing written information, undertaking urbanism activities, and advertisement about LCA are effective strategies. More Non-US planners reported that participating

in LCA initiatives and inviting planners to talk about LCA are effective strategies (participation: US: 15%, Non-US: 21%; invitation of planners: US: 16%, Non-US: 18%). We summed the number of selected strategies to create the indicator (alpha: 0.8). We hypothesize that communities with more strategies of engagement will have more LCA actions and outcomes.

We are interested in differentiating the factors driving LCA actions and outcomes in the US sample and non-US sample respectively (Table 5). Compared to non-US planners, US planners reported fewer facilitating practices, fewer external motivations and fewer LCA actions. However, US planners also reported fewer political barriers than the non-US planners, though political barriers were low overall. We also controlled the model for population size, metro status and whether the planner worked for the public or private sector. Compared to the US sample, the non-US sample included larger places and fewer suburbs.

5. Results

We ran two ordinary least square regressions to understand the differences in factors that explain the level of LCA actions and outcomes. Regression results are shown in Table 6. To assess the impact of variables on a standard scale, we report standardized coefficients. As expected, we found that more local governments actions to advance LCA are related to a higher level of outcomes (incorporating the LCA approach into planning practices). This is true for both the US and non-US sample.

For both the US and the non-US sample, facilitating practices (including policy support, funding and older adult engagement) play an important role in both LCA actions and outcomes. Indeed, facilitating practices have the largest impact of any model variable in the LCA outcomes model. The engagement strategies (including engaging officials to talk about LCA, hosting meeting and seminars) also shows high impact on LCA outcomes. If a community uses more strategies for planners' engagement in planning LCA, then the community is more likely to incorporate the LCA approach into its planning practices. Our model results confirm the role of engagement strategies in building LCA (Fitzgerald & Caro, 2017; Warner, Homsy, & Morken, 2017; Warner, Xu, & Morken, 2017; WHO, 2007).

Local motivations are the main factor driving local governments' LCA actions in both the US and non-US samples. Motivations have the highest effect of any model variable. US local governments' LCA actions are also driven by external motivations (though with less than half the impact of local motivations), but external motivation is not a driver for the non-US sample. Similarly, business motivation has a positive effect on LCA outcomes in the US model, but not in the non-US sample. This may reflect the greater emphasis on market leadership rather than public policy leadership in the US.

Regarding barriers, while knowledge barriers slow LCA action in the US sample, most of the barriers have no effect. In the LCA outcomes models, while both traditional barriers (which includes traditional planning approaches) and resource barriers are significant, planners report more LCA outcomes despite higher barriers in both samples. This is promising news indeed. A lack of financial resources or time does not appear to stop the incorporation of an all age lens in planning. Our model results show that LCA approaches are complementary to traditional planning.

Table 5. LCA model variables: US/non-US comparison. Source: International Planner Engagement Survey (AARP, 2017).

	US sample N = 405	Non-US sample N = 154	T Test
Dependent variables			
Outcomes (number of elements = 11, scale 0–5)	18.34	17.79	0.31
Actions (number of elements = 8, yes = 1)	**1.4765**	**1.9675**	**−2.51***
Independent variables			
Local motivation (factor score)	0.0149	−0.0391	0.57
External motivation (factor score)	**−0.0525**	**0.1380**	**−2.02***
Business motivation (factor score)	−0.0407	0.1071	−1.56
Tradition barrier (factor score)	0.0011	−0.0029	0.04
Knowledge barrier (factor score)	−0.0030	0.0078	−0.11
Politics barrier (factor score)	**−0.0747**	**0.1966**	**−2.88***
Resource barrier (factor score)	−0.0168	0.0441	−0.64
Engagement Strategies (number of elements = 8, yes = 1)	1.8420	1.7143	0.60
Facilitating practices (number of elements = 7, yes = 1)	**0.5975**	**0.9481**	**−3.06***
Population size (scale 1 = less than 5,000 …to 6 = I million or more)	**3.5333**	**4.0130**	**−3.24***
Public sector (yes = 1)	0.4173	0.3506	1.44
Suburb (yes = 1)	**0.3654**	**0.2208**	**3.29***
Rural (yes = 1)	0.2272	0.2078	0.49

Notes: N = 559; * significant at $p < .05$.

Table 6. OLS regression results: LCA actions and outcomes. Source: International Planner Engagement Survey (AARP, 2017).

	US sample		Non-US sample	
	LCA Actions	LCA Outcomes	LCA Actions	LCA Outcomes
LCA actions		0.14**		0.12*
Local motivation	0.40**	0.05	0.35**	0.03
External motivation	0.16**	−0.01	−0.01	−0.09
Business motivation	−0.01	0.08*	0.06	−0.01
Tradition barrier	−0.03	0.13**	0.05	0.14**
Knowledge barrier	−0.10*	0.05	−0.10	0.08
Politics barrier	0.02	−0.01	−0.04	−0.05
Resource barrier	−0.03	0.13**	0.00	0.14**
Engagement strategies	0.03	0.22**	−0.08	0.21**
Facilitating practices	0.31**	0.23**	0.41**	0.27**
Community size	0.08	−0.03	0.05	0.05
Public sector	0.09	0.26**	0.21**	0.37**
Suburb	−0.10**	−0.07*	0.02	−0.02
Rural	−0.10*	−0.02	0.08	−0.09
N	405	405	154	154
R-square	0.51	0.67	0.55	0.79
Adj. R-square	0.50	0.66	0.51	0.77

Notes: Standard coefficients, ** $p < .01$, * $p < .05$; multicollinearity test shows that mean VIF of each model is less than 2; N = 559.

Planners working in the public sector report higher LCA outcomes, compared to planners working in the private sector. Public sector planners are also more likely to report their local governments take more LCA actions in the non-US sample.

Suburbs and rural communities report fewer actions in the US sample, and suburbs report lower outcomes. Metro status is not significant in the non-US sample, but this could be due to a lower percentage of suburban and rural respondents in the non-US sample.

6. Discussion

Our models have shown that local government LCA actions lead to more outcomes incorporating an LCA approach. Facilitating practices help planners increase LCA actions and outcomes. Engagement strategies are key to LCA outcomes as well. These models confirm the importance of engagement and collaboration among planners and their communities around the world (Greenfield et al., 2015; Plouffe & Kalache, 2011). See Figure 1.

We expected a positive relation between motivation and LCA action and outcomes. While we found local motivation is key to LCA action, motivations are not significant on LCA outcomes. This is because actions, facilitating practices and engagement, are what drive LCA outcomes. Only the business motivation had a direct impact on outcomes, and only in the US sample. However, we ran separate models on Canada, Europe, and Australia, and also found business motivation is positively related to the incorporation of LCA in Australia. Survey respondents were invited to submit case studies. A planner from Melville, Australia, reported how the business community can promote LCA outcomes. The second largest shopping center in the State of Victoria is undergoing a major remodeling driven by the increasing needs of older adult customers (particularly those with dementia). The City of Melbourne created an Access Advisory Group comprised of people with a range of ages and disabilities to consult on all large projects and events. The advisory group helps inform age/dementia-friendly design features, which the business community is using in redesign. This shows the power of engagement in facilitating practices to promote LCA outcomes.

Barriers do not hold LCA back. Communities facing traditional planning barriers and resource barriers report

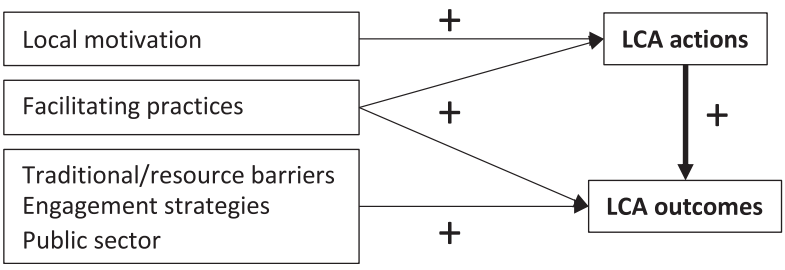


Figure 1. Summary of main findings. Note: + denotes a positive relation.

higher levels of LCA outcomes. Resource barriers are a challenge in developing LCA (Greenfield et al., 2015; Lui et al., 2009), but our models show incorporating all age lens into planning practices could be a promising way for communities facing traditional resource barriers (Green, 2013). We also use pair-wise comparison to examine the relation between engagement strategies and barriers, and find that engagement strategies are positively related to all barriers. The results suggest that barriers may also be overcome by engagement strategies.

6.1. Rural/Suburban Differences in the US

We conducted a deeper analysis of the US sample, where rural and suburban respondents were dominant, and compared this sample to US communities as a whole using the AARP 2018 livability indicators, which measure seven domains of age-friendly communities[2] based on WHO's (2007) framework. We conducted T-tests between US survey respondents and all US places and found that the LCA survey respondents are from places with better livability in the environment, health, neighborhood, transportation, and opportunity, but no difference in engagement and housing. Our suburban survey respondents have significantly lower scores in the categories of the neighborhood, transportation, and housing than the US as a whole. These are built environment features which make it difficult for suburbs to meet the needs of the aging population.

To understand what drives the lag in LCA actions and outcomes in US suburbs and rural communities, we reran our LCA Action and Outcome models separately for US suburban and rural respondents. We found that political and knowledge barriers impede LCA in rural communities, and external motivation does not promote LCA action in suburbs. But local motivation, facilitating practices and community engagement strategies were important in all models (Table 7). These results suggest that it is the social layer that matters most. An inclusive environment, created by engagement and facilitating practices, is key to helping US suburbs and rural areas improve LCA actions and outcomes. The emphasis on new urbanist physical design principles does not work for many suburban and rural areas. Our model results suggest that to overcome knowledge barriers, we need to develop age-friendly strategies specifically designed for suburban and rural areas. Attention to community engagement and facilitating practices is key to identifying new approaches.

6.2. Study Limitations

Our study has several limitations. First, some of the wording of survey questions on facilitating practices and engagement strategies is similar, and this could make differentiation of facilitating practices and engagement strategies difficult. However, we ran factor analysis to examine the correlation among questions and found that all the elements in engagement strategies are grouped separately from elements in facilitating practices. Thus, we keep them as two separate variables. Second, the surveys were sent to planners around the world. Most of the planners are from the public sector (72%), 19% from the

Table 7. Urban/suburban/rural comparison of model results: US subsample. Source: International Planner Engagement Survey (AARP, 2017).

	Urban		Suburban		Rural	
	LCA Actions	LCA Outcomes	LCA Actions	LCA Outcomes	LCA Actions	LCA Outcomes
LCA Actions		0.17*		−0.06		0.28
Local motivation	0.45**	0.05	0.34**	0.05	0.32**	0.07
External motivation	0.25**	0.04	−0.04	−0.10	0.39**	−0.01
Business motivation	0.05	−0.02	0.01	0.12	0.09	0.06
Tradition barrier	−0.10	0.08	−0.05	0.19**	−0.03	0.06
Knowledge barrier	−0.11	0.10	−0.08	0.03	−0.23*	0.06
Politics barrier	0.01	−0.01	−0.03	0.05	−0.01	−0.19**
Resource barrier	0.05	0.17*	−0.05	0.17**	−0.12	0.06
Engagement Strategies	0.10	0.17*	0.01	0.21**	0.14	0.31*
Facilitating Practices	0.11	0.13	0.41**	0.37**	0.34**	0.14
Community size	0.09	−0.09	0.05	0.05	−0.03	−0.01
Public sector	0.06	0.27**	0.16	0.28**	0.15	0.26*
N	148	148	135	135	74	74
R-square	0.48	0.65	0.56	0.74	0.77	0.72
Adj. R-square	0.43	0.62	0.52	0.71	0.73	0.66

Notes: standard coefficients, ** $p < .01$, * $p < .05$.

[2] See livabilityindex.aarp.org

private sector, and 8% from the nongovernment or nonprofit sector. The understanding of LCA may vary across sectors, which could cause estimation bias. Third, although the survey is conducted at an international scale, more than 70% of respondents are from the US. We group all the non-US respondents together to ensure sufficient sample size for regression analysis. However, the non-US countries sample includes seven different countries, which may be differentiated by planning practices. We separated the non-US sample into non-US developed countries (Canada, Europe, and Australia/New Zealand) and non-US developing countries (Latin America, Asia, Africa, and the Middle East). We conducted t tests for differences in means and found that only external motivation differentiates the two subsamples. We also ran the regression model only using non-US developed countries. Results show that engagement strategies are not related to the LCA outcomes, and the public sector is not related to LCA actions. Other results are the same as the overall non-US sample results. Thus, we conclude that, due to small sample size, our non-US sample cannot capture the differences between countries.

7. Conclusion

In this study, we analyzed the 2017 International Planner Engagement Survey on LCA to see if we could differentiate motivations, barriers and facilitating practices driving local government actions and outcomes on LCA. While US respondents reported lower levels of LCA action and engagement, facilitating practices and engagement strategies were key to higher levels of LCA outcomes for all respondents. By creating a supportive work environment and engaging stakeholders, planners can increase actions to promote LCA. Local motivation is key—this includes knowledge and expertise as well as advocacy and political pressure. Barriers do not hold back LCA incorporation, except in US rural communities. These results suggest a promising way forward for building livable communities for all ages. Even in communities facing limited resources and focusing on traditional planning approaches, community engagement and facilitating strategies offer a means to promote a livability for all ages approach. It is the social innovations that move us forward.

Acknowledgments

We would like to thank the APA Divisions Council for funding support of the international survey analysis. We also would like to thank additional members of the survey research team, Tim van Epp of the APA International Division, Michael Amabile and Greyson Clark of Arup, and Brad Gudzinas, Rodney Harrell and Cheryl Lampkin of AARP for their assistance with this project. This work is supported by the USDA National Institute of Food and Agriculture, Agricultural and Food Research Initiative Competitive Program, Agriculture Economics and Rural Communities, grant #2018-07005.

Conflict of Interests

The authors declare no conflict of interests.

References

AARP. (2018). 2018 Home and community preferences: A national survey of adults age 18-plus. *AARTP*. Retrieved from www.aarp.org/livablesurvey2018

AARP. (2017). *International planner engagement survey*. Washington, DC: AARP.

Andriola, V., & Muccitelli, S. (2017). Framing a multigenerational approach to planning. The Italian context. *iQuaderni di Urbanistica Tre*, *2017*(14). Retrieved from www.urbanisticatre.uniroma3.it/dipsu/?page_id=5459

APA. (2014). *Aging in community policy guide*. Chicago, IL: American Planning Association.

Ball, M. S. (2004). *Aging in place: A toolkit for local governments*. Atlanta, GA: Atlanta Regional Commission.

Brown, D. L., Glasgow, N., Kulcsar, L. J., Sanders, S., & Thiede, B. C. (2018). The multi-scalar organization of aging-related services in US rural places. *Journal of Rural Studies*. https://doi.org/10.1016/j.jrurstud.2018.09.010

Buffel, T., & Phillipson, C. (2016). Can global cities be 'age-friendly cities'? Urban development and ageing populations. *Cities*, *55*, 94–100. https://doi.org/10.1016/j.cities.2016.03.016

Choi, M., & Warner, M. E. (2015). Collaboration: The key to building communities for all generations. In *The municipal yearbook 2015* (pp. 27–39). Washington, DC: International City County Management Association. Retrieved from http://cms.mildredwarner.org/p/216

Duany, A., & Plater-Zyberk, E. (2009). *Lifelong communities: A regional guide to growth and longevity*. Atlanta, GA: Atlanta Regional Commission.

Emlet, C. A., & Moceri, J. T. (2012). The importance of social connectedness in building age-friendly communities. *Journal of Aging Research*. http://dx.doi.org/10.1155/2012/173247

Farber, N., Shinkle, D., Lynott, J., Fox-Grage, W., & Harrell, R. (2011). *Aging in place: A state survey of livability policies and practices*. Washington, DC: National Conference of State Legislatures and AARP Public Policy Institute. Retrieved from www.aarp.org/home-garden/livable-communities/info-11-2011/solutions-forum-aging-in-place.html

Firestone, S. K., Keyes, L., & Greenhouse, E. (2018). Planners and aging professionals collaborate for livable communities. *Working with Older People*, *22*(1), 20–29.

Fitzgerald, K. G., & Caro, F. G. (2014). An overview of age-friendly cities and communities around the world. *Journal of Aging & Social Policy*, *26*(1/2), 1–18. https://doi.org/10.1080/08959420.2014.860786

Fitzgerald, K. G., & Caro, F. G. (2017). *International*

perspectives on age-friendly cities. New York, NY: Routledge.

Gallagher, E., Menec, D. V., & Keefe, D. J. (2006). *Age-friendly rural and remote communities: A guide*. Toronto: Federal, Provincial and Territorial Ministers Responsible for Seniors.

Glasgow, N., & Brown, D. L. (2012). Rural ageing in the United States: Trends and contexts. *Journal of Rural Studies*, *28*(4), 422–431.

Glicksman, A., Clark, K., Kleban, M. H., Ring, L., & Hoffman, C. (2014). Building an integrated research/policy planning age-friendly agenda. *Journal of Aging & Social Policy*, *26*(1/2), 131–146. https://doi.org/10.1080/08959420.2014.854142

Green, G. (2013). Age-friendly cities of Europe. *Journal of Urban Health*, *90*(1), 116–128. https://doi.org/10.1007/s11524-012-9765-8

Greenfield, E. A., Oberlink, M., Scharlach, A. E., Neal, M. B., & Stafford, P. B. (2015). Age-friendly community initiatives: Conceptual issues and key questions. *Gerontologist*, *55*(2), 191–198. https://doi.org/10.1093/geront/gnv005

Hanlon, B. (2008). The decline of older, inner suburbs in metropolitan America. *Housing Policy Debate*, *19*(3), 423–456. https://doi.org/10.1080/10511482.2008.9521642

He, W., Goodkind, D., & Kowal, P. R. (2016). *An aging world: 2015*. Washington, DC: United States Census Bureau.

Howe, D. (2012). Aging as the foundation for livable communities. In F. Wagner & R. Caves (Eds.), *Community livability: Issues and approaches to sustaining the well-being of people and communities* (pp. 97–114, 1st ed.). New York, NY: Routledge.

Joint Center for Housing Studies. (2018). *Housing America's older adults 2018*. Cambridge, MA: Joint Center for Housing Studies. Retrieved from www.jchs.harvard.edu/housing-americas-older-adults-2018

Kendig, H., Elias, A.-M., Matwijiw, P., & Anstey, K. (2014). Developing age-friendly cities and communities in Australia. *Journal of Aging and Health*, *26*(8), 1390–1414.

Kochera, A., Straight , A., & Guterbock, T. (2005). *50.05: A report to the Nation on livable communities. Creating environments for successful aging*. Washington, DC: AARP.

Lee, J. K., Hong, S. H., & Park, Y. M. (2017). Predictable surprise: The spatial and social morphology of aging suburbs in the US metropolitan areas. *Sustainability*, *9*(3). https://doi.org/10.3390/su9030458

Lehning, A. J. (2012). City governments and aging in place: Community design, transportation, and housing innovation adoption. *Gerontologist*, *52*(3), 345–356. https://doi.org/10.1093/geront/gnr089

Lehning, A. J. (2014). Local and regional governments and age-friendly communities: A case study of the San Francisco Bay Area. *Journal of Aging & Social Policy*, *26*(1/2), 102–116. https://doi.org/10.1080/08959420.2014.854140

Lehning, A. J., & Greenfield, E. A. (2017). Research on age-friendly community initiatives: Taking stock and moving forward. *Journal of Housing for the Elderly*, *31*(2), 178–192. https://doi.org/10.1080/02763893.2017.1309937

Lui, C. W., Everingham, J. A., Warburton, J., Cuthill, M., & Bartlett, H. (2009). What makes a community age-friendly: A review of international literature. *Australasian Journal on Ageing*, *28*(3), 116–121. https://doi.org/10.1111/j.1741-6612.2009.00355.x

Micklow, A. C., & Warner, M. E. (2014). Not your mother's suburb: Remaking communities for a more diverse population. *Urban Lawyer*, *46*(4), 729–751.

Morken, L., & Warner, M. (2012). *Planning for the aging population: Rural responses to the challenge* (Issue Brief). Washington and Ithaca: National Association of Area Agencies on Aging and Cornell University. Retrieved from cms.mildredwarner.org/p/146

Novek, S., & Menec, V. H. (2014). Older adults' perceptions of age-friendly communities in Canada: A photovoice study. *Ageing & Society*, *34*(6), 1052–1072.

Plouffe, L. A., & Kalache, A. (2011). Making communities age friendly: State and municipal initiatives in Canada and other countries. *Gaceta Sanitaria*, *25*, 131–137. https://doi.org/10.1016/j.gaceta.2011.11.001

Pratt, E. E., & Warner, M. E. (2018). Imagining the "Good place": Public services and family strategies in rural Ecuador. *Rural Sociology*. https://doi.org/10.1111/ruso.12231

Sancar, F. H., & Severcan, Y. C. (2010). Children's places: Rural–urban comparisons using participatory photography in the Bodrum peninsula, Turkey. *Journal of Urban Design*, *15*(3), 293–324.

Severcan, Y. C. (2015a). Planning for the unexpected: Barriers to young people's participation in planning in disadvantaged communities. *International Planning Studies*, *20*(3), 251–269.

Severcan, Y. C. (2015b). The effect of childen's participation in planning and design activities on their place attachment. *Journal of Architectural and Planning Research*, *32*(4), 271–293.

Thiede, B. C., Brown, D. L., Sanders, S. R., Glasgow, N., & Kulcsar, L. J. (2017). A demographic deficit? Local population aging and access to services in rural America, 1990–2010. *Rural Sociology*, *82*(1), 44–74.

UNICEF. (2004). *Building child friendly cities: A framework for action*. New York, NY: UNICEF. Retrieved from unicef-irc.org/publications/416

UNICEF. (2018). *Shaping urbanization for children: A handbook on child-responsive urban planning*. New York, NY: UNICEF. Retrieved from www.unicef.org/publications/index_103349.html

US Census Bureau. (2017). *American Community survey, 2011–2016*. Washington, DC: US Department of Commerce.

Warner, M. E. (2006). Market-based governance and the challenge for rural governments: US trends. *Social*

Policy & Administration, *40*(6), 612–631.
Warner, M. E. (2017). Multigenerational planning: Theory and practice. *iQuaderni di Urbanistica Tre*, *2017*(14). Retrieved from www.urbanisticatre.uniroma3.it/dipsu/wp-content/uploads/2018/01/u3_quaderni_14_warner.pdf
Warner, M. E., & Homsy, G. C. (2017). Multi-generational Planning: Integrating the needs of elders and children. In F. Caro & K. Fitzgerald (Eds.), *International perspectives on age friendly cities* (pp. 227–240). New York, NY: Routledge.
Warner, M. E., Homsy, G. C., & Morken, L. J. (2017). Planning for aging in place: Stimulating a market and government response. *Journal of Planning Education and Research*, *37*(1), 29–42. https://doi.org/10.1177/0739456X16642824
Warner, M. E., & Morken, L. (2013). Building child and age friendly communities in tight fiscal times. In *The 2013 municipal yearbook* (pp. 47–56). Washington, DC: International City County Management Association.
Warner, M. E., Xu, Y., & Morken, L. (2017). What explains differences in availability of community health-related services for seniors in the United States? *Journal of Aging and Health*, *29*(7), 1160–1181. https://doi.org/10.1177/0898264316654675
Warner, M. E., & Zhang, X. (2019). Planning communities for all ages. *Journal of Planning Education and Research*. https://doi.org/10.1177/0739456X19828058
Winick, B., & Jaffe, M. (2015). Planning aging-supportive communities. *APA Planning Association*. Retrived from www.planning.org/publications/report/9026902
World Health Organization. (2002). *Active ageing: A policy framework*. Geneva: World Health Organization Press. Retrieved from whqlibdoc.who.int/hq/2002/WHO_NMH_NPH_02.8.pdf
World Health Organization. (2007). *Global age-friendly cities: A guide*. Geneva: World Health Organization Press.
Winters, M., Voss, C., Ashe, M. C., Gutteridge, K., McKay, H., & Sims-Gould, J. (2015). Where do they go and how do they get there? Older adults' travel behaviour in a highly walkable environment. *Social Science & Medicine*, *133*, 304–312. https://doi.org/10.1016/j.socscimed.2014.07.006
Young, D., & Keil, R. (2014). Locating the urban in-between: Tracking the urban politics of infrastructure in Toronto. *International Journal of Urban and Regional Research*, *38*(5), 1589–1608. https://doi.org/10.1111/1468-2427.12146

About the Authors

Xue Zhang is a PhD candidate in Regional Science at Cornell University. She is interested in age-friendly community development from an international prescriptive, sustainable development, equity, public health, and spatial modeling. Her research also explores the relation between demographic transition, economic development structure, and regional development disparities. She pays attention to the linkage between people's mobility, rural development and community development policy. Orchid address: 0000-0002-0109-338X

Mildred E. Warner is a Professor in the Department of City and Regional Planning at Cornell University, where her work focuses primarily on local government service delivery, economic development, environmental sustainability and multigenerational planning. Dr. Warner's research explores the impact of privatization and fiscal decentralization on local government and the role of human services as social infrastructure for economic development. She gives special attention to the needs of children, families and older adults and how local governments can respond. Orchid address: 0000-0002-5786-4235

Stephanie Firestone is a Senior Strategic Policy Advisor with AARP International, where she focuses on global urban aging. Stephanie advances livable communities for people of all ages and abilities, by building a knowledge base around planning for aging populations, fostering collaboration between planners, aging professionals and other sectors, and infusing aging considerations into local government plans and policies. Stephanie holds a Master of Urban Planning degree from the University of Virginia.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 43–52
DOI: 10.17645/up.v4i2.1896

Article

Understanding Belonging and Community Connection for Seniors Living in the Suburbs

Sonya L. Jakubec [1,*], Marg Olfert [1], Liza L. S. Choi [1], Nicole Dawe [2] and Dwayne Sheehan [1]

[1] Faculty of Health, Community and Education, Mount Royal University, Calgary, T3E 6K6, Canada; E-Mails: sjakubec@mtroyal.ca (S.L.J.), molfert@mtroyal.ca (M.O.), lchoi@mtroyal.ca (L.L.S.C.), dpsheehan@mtroyal.ca (D.S.)
[2] Vivo for Healthier Generations, Calgary, AB T3K 6E3, Canada; E-Mail: ndawe@vivo.ca

* Corresponding author

Submitted: 14 December 2018 | Accepted: 5 March 2019 | Published: 18 June 2019

Abstract
While much has been explored about notions of both place and belonging in regard to community health of various populations, little is known of the phenomena specific to suburban dwelling seniors. More and more seniors are living in suburban neighborhoods, communities that do not tend well to the belonging needs of this population. This qualitative study sought the perspectives of suburban dwelling seniors about the role of belonging and community connection to their health and wellbeing. Informed by strengths-based approaches to community development and health, the study engaged people from three community groups of older adults in a Canadian suburb (a seniors' recreational/social group, and two cultural groups) in group interviews concerning the topic. Discoveries included an understanding of belonging as both personal and social, and identification of facilitators and barriers to belonging at personal and systemic levels. Belonging was experienced through connection, contribution and cooperation. These findings are important to shape community engagement with seniors and to inform decision-making and program developments in areas of recreation, leisure, health services, community policing, city planning and other services.

Keywords
community belonging; health; seniors; suburban; wellbeing

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

Concepts of social connectedness and belonging have increasingly garnered the interest of researchers and interventionists over the past two decades (Almedom, 2005; Bruhn, 2009; Caxaj & Berman, 2010; Ottmann, Dickson, & Wright, 2006). While much has been explored about notions of both place and belonging regarding community health of various populations (Baldwin, 2014; Potvin & Hayes, 2007), little is known of the phenomena of seniors living in suburbs (Richard, Gauvin, & Gosselin, 2008). There are varied and inconsistent ways of describing suburbs, as well as recent discoveries of isolation experienced by urban and suburban dwelling seniors, with little understanding, however, of the older adults who live in these communities (Morris & Pfeiffer, 2017). The phenomenon is one of rapidly increasing relevance in many Canadian cities where urban housing costs relegate many seniors to lower cost suburban regions, and where many new immigrant families also co-house in mixed generations (Miller, 2017; Patterson, Saddier, Rezaei, & Manaugh, 2014). This study sought to explore the views and perspectives of seniors (older adults, 60+) living in the north central suburbs of Calgary, a large, multicultural and predominantly "young" (median age 36.4) city in Western Canada (Statistics Canada, 2012).

Broad interests of this inquiry were about the experience of belonging and community connection to suburban dwelling seniors in relation to their health and wellbeing. Beginning the study with these interests and gathering the views of older adults who were already engaged in group activities was central to the project on a number of levels, namely providing seniors based in suburbs an opportunity to belong, to be heard and for their opinions to matter in community development. This knowledge is also important for decision-making and program developments in areas of recreation, leisure, health services, community policing, city planning and other services.

2. Background

Much has been explored internationally concerning older adults and the phenomenon of loneliness, including social and neighbouhood factors, over the past decade (Gerst-Emerson & Jayawardhana, 2015; Smith, 2012; Vozikaki, Papadaki, Linardakis, & Philalithis, 2018). Linkages between health and social networks are extremely complex and poorly understood, however—with numerous related variables of concern and relationships that defy empirical analyses. If we focus on understanding population-specific perspectives of community belonging there are a variety of frameworks and concepts to consider. Social cohesion (Bruhn, 2009; Toye, 2007), social connectedness (Almedom, 2005; Ottmann et al., 2006; Townsend & McWhirter, 2005), social capital (Putnam, 1995), neighbourhood (Abada, Hou, & Ram, 2007; Richard et al., 2008; Steptoe & Feldman, 2001), communities (Völker, Flap, & Lindenberg, 2007), and belonging (Block, 2008; Caxaj & Berman, 2010) are all terms identified in the literature.

In empirical studies drawing upon these concepts or experiences, diverse approaches such as neighbourhood mapping (Aronson, Wallis, O'Campo, & Schafer, 2007), indicator and demographic measurement studies (Nieminen et al., 2008; Rajulton, Ravanera, & Beaujot, 2007), ecological (Pickett & Wilkinson, 2008), comparative analyses (Green, Preston, & Janmaat, 2006), and intervention studies (Pronyk et al., 2008) contribute to the growing literature. Despite a lack of clarity and inherent complexity, research studies have attempted to explicate the terms to be used and to appreciate relationships between these social factors and health concerns (see, for example, Grav, Hellzèn, Romild, & Stordal, 2012, for a study on social support and depression). The linkages of belonging and loneliness of older adults are gathering current scholarly and programmatic interest, highlighting systemic and individual strategies for wellbeing (Goll, Charlesworth, Scior, & Stott, 2015). Other meta-analyses have focused on understanding the quality and quantity of social relationships on mortality and taken together these factors are found to be comparable to other risk factors (Holt-Lunstad, Smith, & Layton, 2010).

While the swell of conceptual and empirical work is building an understanding of community belonging and health (Mohnen, Völker, Flap, Subramanian, & Groenewegen, 2013), little knowledge of the topic of belonging specifically for suburban dwelling seniors has been generated to date. A majority (66%) of the Canadian population lives in some form of suburb and, given that one out of every four Canadians will be over the age of 65 in fewer than 25 years (Miller, 2017), the phenomenon of seniors living in the suburbs poses many important questions. Seniors in suburbs are unique because of perceived and real isolation from services, including health care and access to transportation (Patterson et al., 2014). Calgary's suburbs are inhabited by people of diverse social, cultural, and economic backgrounds. As such, our study engaged suburban-dwelling seniors engaged in diverse community groups for a broad, qualitative exploration of the phenomena to establish foundational understanding of the experience of belonging for suburban dwelling seniors.

Rather than relying on preconceived frameworks of understanding social connection and belonging, we wanted to hear the perspectives of people who identified as being connected to their community and, specifically, to hear the views of these older adults on belonging in relation to their wellbeing. In the study we asked the following questions: 1) what are the facilitators and barriers to belonging and connection, and 2) what, ideally, could belonging and connection look like in rapidly expanding, multi-cultural, multi-generational suburban communities?

3. Research Methods and Approach

This exploratory, qualitative study employed a group interview method with thematic analysis (Krueger & Casey, 2009). The theoretical approach taken in this study design (one that guided the questions, as well as the methods and facilitation) was that of asset-based community development as described by McKnight and Block (2010) who problematize the practice of "professionalizing community", instead drawing on the notion of "abundant community", concerned with strengths rather than deficits related to experiences of belonging in communities. This strengths-based approach sought community learning and understanding of group experiences, rather than "medicalizing" or "professionalizing" community health and development in an outside framework of belonging (Block, 2008). Both the methods and this approach were appropriate to the broad exploratory and community development goals of the project. The study proceeded following ethical approval from a university level research ethics board.

3.1. Participants

Members of three distinct community groups for suburban-dwelling seniors comprised the sample for this study. The groups were already connected to the site of a large non-profit suburban recreation centre based in

north central Calgary, and thus considered well qualified "expert informant" participants in terms of seniors' experiences of belonging. As introduced, Calgary is a youth-oriented city that has experienced rapid growth with the resulting characteristics of decades of car-dependent suburban sprawl and consequent social isolation. The city experiences a long winter season for up to six months of the year with snow and ice and warm chinook winds, elements that were key to participant experiences of their community access and connection. Participants were sought who had found community affiliation and group participation within the suburban community in north central Calgary. Their experiences included navigating age-related changes in driving and mobility in the latter seasons of their lives within the context of the weather and suburban conditions, as well as changes of identity as a result of retirement from formal employment or family roles (Goll et al., 2015; Patterson et al., 2014).

Those recruited were retired seniors who were members of one of three distinct groups affiliated with the suburban recreation centre: a physical activity group from the local neighborhood association, a South Asian (Punjabi) cultural group that routinely met at the recreation centre, and a Chinese Canadian group of older adult neighborhood residents. A purposive snowball sampling technique was employed in the study and leaders from each of these community groups were approached to invite members to participate in a group interview process held at one of the community recreation centre group meeting rooms and the Chinese Elderly Citizens' Association where a volunteer interpreter/translator supported the data gathering. Confirmations were sought through the community leaders and 8 to 16 older adults (ranging in age from 60 to 80 years of age) participated in each of the three group interviews (N = 36). Approximately half of the total group identified as female, and half male.

3.2. Data Collection and Analysis

Data collection through audio recorded group interviews occurred over the course of 60 to 90-minute group meetings and proceeded in three rounds, at a community meeting room selected by participants. The Chinese-Canadian participant group interview was conducted in Mandarin, with English language translation provided for the recorded transcript. All other interviews took place in English language facilitated by two members of the research team. Interview questions asked were:

1. What does belonging in the community mean? How is community belonging and connection valuable for your neighborhood (for different groups—other individuals—you?)
2. What are the facilitators and barriers? What supports community belonging and connection in your neighbourhood? What gets in the way?
3. What would you like to happen? What would be happening—ideally—if there was community belonging and connection in your neighborhood? What would that look like?

Group interview analysis, as a form of thematic analysis, aims to capture themes elicited from group dialogue and relevant to group concerns (Braun & Clarke, 2006). The analytic interest of our study was on experiences of community belonging identified by groups of suburban dwelling older adults. Research team members completed thematic analysis by hand-coding transcripts from all 3 group interviews. An initial reading of the texts allowed for researchers to "define" themes from the data, rather than searching for pre-defined themes or theoretically driven concepts of belonging (Braun & Clarke, 2006, p. 92). During the first reading, notes were made of individual comments arising from the interviews in order to acquire a sense of the topics of benefits, barriers and desires for belonging embedded in the data. Later, text was manually highlighted, and notes were made in a data organizing form with the individual transcript reviews and broad themes were identified. It must be emphasized that this was not considered a-theoretical work—community development models guiding the project similarly framed the analysis of the interview data.

Participants reviewed the identified preliminary themes in a large group meeting, bringing together all three participant groups, as well as interested community agencies and municipal neighbourhood leaders, which allowed for confirmation of the findings. The collaborative research process also enabled an opportunity to seek resonance with those who hold expertise in the subject, work directly in the field, and those who were present at the interviews and part of the larger research team.

4. Findings

4.1. Belonging Is Personal but Connected to Place and People

Belonging was identified as a "feeling" (involving sensations and attitudes), a "knowing" (or having access to information and wisdom), a state of "being" (experienced in connection to others in defined community spaces), and as "doing" (activities and goings on). These characteristics were personal, but also connected or social, and are described in more detail with examples from the data. One participant described the social aspect of belonging in regard to the need for ongoing and sustained activities. He said:

> We did a project last year and we had five communities come together from five different cultures and have five different events. That was great, but that was only limited to there and then; after that you forget again and don't get connected. Connecting means

> you should be connecting with everybody in the community, not just one group and the other group and the other group.

A "feeling" of belonging meant a sensation or an attitude, for example feeling attached, comforted, accepted, and appreciated/respected. For the participants, belonging also meant feeling they were seen or visible and feeling valued in a youth-focused city/culture:

> It can be an isolated and abandoned feeling [described struggling to get to health resources or community activities for loved ones in need]—they just haven't built these necessary things in the suburbs.

Belonging, for the seniors, was a part of "having knowledge"—knowing information about what "what is happening" in the community, about the goings on in a neighbourhood beyond the family. Knowing the resources available, the gossip, and the best places to go and find things were all a key part of this belonging as a kind of knowing. A participant explained how knowledge was part of belonging:

> Being connected is the comfort zone—knowing where to get help. It is scary when you don't know, as in when your partner is "going downhill" and you don't know where to turn. It is good to know who to approach; the facilities in your neighbourhood are helpful.

Not having knowledge in the community, it seemed, could have challenges or even bring "scary" consequences. At the other end of the continuum of knowledge, was a lack of belonging. According to a participant who sought out a community centre with translation and interpretation supports:

> They [those struggling to belong] do not know where the community centre is or other centres of information….That's why they do not know where activities, events are and there isn't a sense of belonging at all.

"Being" part of something (more than home and family) was key to belonging in the community. This connection to something, beyond the bounds of one's home and family, included all sorts of differences (ages, ways of life, social status, culture and so on). In fact, the process of the group interviews and research study impacted this desire to connect, as seniors in one group asked about the other groups that would be participating in the study and requested a meeting with the other groups. Navigating these variances, however, was not easy. Being able to participate in the reciprocal relationship as a friend and a neighbour was generally identified as "harder as one gets older". Practicalities of life in suburban areas compounded these challenges, as well as the physical isolation and unfamiliar cultural connections challenging the participants. Despite this difficulty, participants emphasized that connecting to "something more" was important. Several participants noted that one's world could rapidly become small without expanding and diversifying one's social connections. One participant said it best as she commented:

> Once you retire from work you lose that social circle and are cut off very quickly. Humans are social beings, sometimes seniors are happy at home, but some are looking for something outside their home—volunteer work, socializing, activities, etc.

Actively "doing" things (activities, meeting together, reading/gathering information, hearing from one another, or sharing ideas, customs and news) was another feature of belonging to community that was important for health and wellbeing. The gap in organized activities for those aged 50 to 75 was noted, with several participants emphasizing they "[we]re not old". One participant described it in this way:

> There are just lots of stereotypes around what being "senior" means—we want to do things and feel alive and be part of things. There is also an individual responsibility. Sometimes you can know about things, but then the individual has to actually do something to act on it.

4.2. Facilitators and Barriers to Belonging Are Both Personal and Systemic

Factors that would facilitate or constrain a sense of belonging were also established in the group interviews and larger group analysis. The facilitators and barriers were, much like the meaning of belonging for participants, identified as both personal and systemic concerns. Participants confirmed that, in abundance, these factors would be facilitators, while if lacking would pose barriers to community belonging. Key factors influencing community belonging were thought to be hope, similarities, desire, effort, access and leaders.

Hope for connection with different people, organizations, research and community/city was a starting place to facilitate belonging. Without hope for belonging other factors could not be seen or supported. Participants expressed hope that "'something' will come from this [community engagement] work" that brought people together; others expressed hope that with their views and perspectives "on the record", that these opinions could be mobilized for other community development, grant-writing or other activities.

Similarities provided connection that was crucial to belonging, as did breaking through false separations that emerged from fears, habits and expectations. Separations emerged in particular when people were not alike, or when the interests seemed different on the surface (as in some of the generational or cultural differences).

This need for similar interests was highlighted by a participant who said:

> Similar interests are needed; people want to feel that they belong. Seniors attend [the] centre downtown because programs [are held] in Chinese, providing a common language, also dancing, exercise, Chinese newspaper [free on Fridays], singing, cooking.

At times the similar interests and activities that brought comfort and belonging to some people were viewed by others as exclusionary or barriers to belonging. Language was identified by some as a barrier in this way, where groups who met and engaged in the language of their origins, were points of contention. According to some participants, "people need to make an effort to learn English, to be Canadian". Some participants sought more dialogue and discussion-focused or segregated community activities (including activities with translators and interpreters) while others proposed activities that were more active than verbal (for example, games, dancing, singing, gardening and so on). Some participants explained that language was a barrier in many complex ways, for instance:

> It's hard to be inclusive in this community. Lots of people are speaking their own languages, even if they can speak English. It [language] is a barrier to being inclusive.

Belonging in an extended community; learning from others; exercising and being active; seeking connections; trying (some) new things, required a strong desire and will. This desire took effort, and at times participants explained that others who might not feel a sense of belonging may be inhibited by their own will—perhaps as a result of fatigue, grief or loss or even illness, but regardless, a desire to belong was seen as essential. One participant explained how her recognition of the desire to belong emerged after retiring and becoming aware of how isolated she had become: "I didn't know people in the community, and didn't realize that I even wanted to until I stopped working".

The recognition and desire for belonging involved a certain curiosity that also existed in a tension with desires to keep things the same and distaste for change. Repeatedly, participants explained: "Sometimes change is hard for seniors". This conflicted curiosity and distaste for change revealed itself in terms of cultural learning and fears about cultures other than their own. Several participants placed an emphasis on learning more about diversity and particularly understanding cultural differences and strengths. This conflict was highlighted in the following interview comment regarding facilitators of belonging:

> As with drinking and driving, education and awareness made a difference. The same with isolation and seniors mingling. We need to learn what makes other cultures good, how have they survived.

Another participant explained this learning in terms of family life and intergenerational belonging, as he explained the value of change and learning:

> At first, I thought boys and girls should not spend time together, but I have changed my views on that.

Effort and openness, such as the effort to learn about cultural and generational changes, were facilitators to belonging. This effort required acceptance, give and take; getting past prejudices/judgments and an openness to change. Sometimes this openness was difficult, and required considerable effort, particularly when people may have experienced losses, fatigue or difficulties with mobility:

> It is a two-way effort: You have to try to belong, but cultures sometimes make it difficult. A person might like to know where the community centre is, but they do not proactively find out.

Certainly addressing systemic issues (such as access to transportation) required effort, especially if meetings or events demanded transportation or language interpretation that was not assured. Personal factors to enhance openness and increase effort were identified as managing the sense of intimidation. Attending events in groups was helpful to manage intimidation. It was identified that more systematic ways of welcoming newcomers could be helpful for all groups:

> Seniors are often intimidated by new things. Something could be in place to help newcomers integrate [to neighbourhoods or community groups], and also to help those in existing groups to be welcoming.

Access to physical and social connections was viewed as central to belonging. Facilitators (and barriers) included transportation; information; familiar language and translations; common places to meet (such as coffee shops and food courts as well as community and recreation centres), along with consistent routines that bring people together (i.e., every Friday newspapers, water fitness class on Tuesdays). It was clear that sustainability and consistency were important to participants who expressed interest in activities "at the same times and places…for consistency". These access issues were significant practical and physical barriers to belonging for suburban seniors. Participants highlighted the importance of access in the suburbs of a city like Calgary that does not routinely plow suburban side streets when snow falls, explaining:

> How the hell do you get there [to a community gathering place]? Especially when the weather is inclement?

Access was also a point of controversy particularly in the suburban neighbourhoods that predominantly served young families. One participant emphasized the barriers

as she described how:

> The City is now building capacity for bicycles all over the place, to the tune of millions of dollars. This enhances life for younger people but not seniors.

Supporting the hope, will, and ways forward, seniors who are community leaders were identified as facilitators of belonging. These were the people who step up and nudge the connections and happenings in communities. They are also the ones who move forward community belonging and the needs of seniors in broader organizations and to municipal decision makers. At times, these leaders could see that they needed breaks and had to find others to hold up their leadership activities if they were on vacation or felt unwell.

Internal leadership and the activities of neighbourhood belonging contrasted with overly regulated or professional support. This professionalization of belonging was particularly noted by immigrant seniors, as in one participant who said:

> In India, a neighbour would come over to help settle an argument; here [suburban Calgary] the police are called first.

Similar concerns were expressed by participants who described the barrier to belonging that emerged as a result of overly regulated volunteering and professionalization of community helping:

> I can clean areas around the neighbourhood, but now there are regulations around who can do this, liabilities, so my small way of volunteering and belonging is shut down.

The effort to become involved and belong, or to step into leadership roles to try to understand the barriers were reflected on by participants. Some felt that, for those seniors not already active in suburban life, that a myriad of reasons impacted their belonging. Health, grief, language or other barriers were factors, but some participants also considered that professional helping and "programs" were barriers of sorts, creating dependencies and inhibiting people from seeking community support and belonging. It was bluntly put by one participant:

> Why do some people make an effort and others don't? That is a whole other research study. There is a sense of entitlement. Some people are waiting to be catered to.

5. Discussion, Implications and Limitations

Belonging in the community is complex for seniors living in suburbs, particularly as these individuals and their neighbourhoods experience diversity and change. Olesen and Berry (2011, p. 194) found that social needs generally change across the life course, especially during the transition from paid work to retirement. Retirement and other losses are a feature of aging in any neighbourhood.

The diverse social and cultural groups of suburban dwelling seniors highlighted a variety of facilitators and barriers to belonging. Despite some unique differences, all expressed a desire for feeling connected and knowing others and the resources available; being active contributors in their communities and doing community work in cooperation with others across cultures and generations. Belonging, in this way, was both an aspect of individual identity and neighbourhood structures and experienced in connection to people and places; at times places were indeed held in much affection: "our walking track", "our Wednesday morning at the pool", "our coffee spot in the shopping mall", they said. The older adults' identities were understood only through places and a complex relationship of knowing, being and doing as affiliated and in connection to others.

Participants expressed a strong desire to be in connection with others particularly to share ideas and views in community, and to exchange information about daily activities, such as where to eat, how to access transport, and general support. Learning about others was identified as an essential component of connection. Connections within one's cultural group and with other groups were deemed as key to nurturing a sense of belonging. However, language remained a barrier for some in terms of being able to enact these connections. In Canadian and other suburban communities characterized by varied linguistic and cultural groups, needs for translation and other supports for older adults to engage more fully in community life are encouraged.

Desires to contribute were pronounced with an expression of the need for "give and take" or "a two-way effort". Seniors who admitted to not knowing the location of a local community centre recognized that they bore the responsibility to be proactive and find out its location and services offered. Giving back to the community—outside of the home and family—was an important aspect of belonging. Seniors expressed a desire to participate in maintaining their neighbourhoods and believed this could happen with support from community agencies. This emphasis on supportive programming needs was similarly found by Dare, Wilkinson, Marquis and Donovan (2018) in relation to fostering Australian seniors' community participation. The benefits of this belonging are noted by Olesen and Berry (2011, p. 194) who found that greater contact with neighbours and through volunteering was associated with improved mental health in newly retired people. Indeed, expanded information and supports for seniors' volunteering in suburban communities are recommendations that have emerged from this project.

Learning and exchanging knowledge together (across diverse generations and cultures) were aspects of belonging that were universally expressed. A common in-

terest connected to community belonging in our study was learning with others and contributing to the knowledge of future generations. While seniors expressed concerns over the differences seen in the younger generation ("kids these days…"), the underlying sense of care and concern for the future was evident. Generational changes were sometimes viewed as difficult, but also necessary, and the tensions were accepted and appreciated by many as a part of community belonging. Mixed generation interventions are further highlighted in the growing field of intergenerational community health (VanderVen & Schneider-Munoz, 2012). A sense of belonging as part of engagement with generational, cultural and other aspects of community diversity expressed by participants mirrors the perceived sense of expanded social support that can support mental wellbeing as discovered by Harasemiw, Newall, Mackenzie, Shooshtari and Menec (2018) and Reitz (2009).

The emergent understanding of belonging highlighted older adults' active engagement in their communities. This agency was part of the "two-way street" of community belonging emphasized by participants. Community access through information and physical means (transportation, road clearing and so on) are essential services to support belonging for older adults in suburbs. The belief that governmental organizations were responsible to meet their changing needs, was questioned by some participants with many challenging others about the need to accept new ways of doing things and giving way for progress and the next generation. Acceptance and use of public transportation and car sharing versus driving were particular examples of the variety of transportation options that could enhance belonging in suburban community life characterized by sprawl and car culture. This example of expanded access and use of public transportation may also provide the double benefit of sparking patterns of intergenerational connection many were seeking—after all, accessible transportation meets the needs of diverse ages and abilities within a population. Design elements that support driving in communities for older adults (Stav, Arbesman, & Lieberman, 2008) and seniors' car sharing options (Shaheen, Cano, & Camel, 2015) are further transportation possibilities to expand access and connection for seniors living in suburban communities. Further study and program evaluation in all these areas of information and physical design will be important future steps.

Despite being a fairly small scale, localized study with particular features of people and place, such as the diverse, new immigrant concentrated neighbourhoods and winter conditions in suburban Calgary—the topics of connection and isolation of seniors in suburbs (Pekmezaris et al., 2013; Zeitler & Buys, 2015) and aspects of seniors' community decision making (Gallant & Hutchinson, 2016) are of broad, current concern. In terms of societal and community health, these research discoveries are novel in the field. While drawing from diverse cultural groups, the study was limited in that it sought the views of well-seniors who were already connected to community supports and actively engaged in community life. This necessarily biased the findings, though it was indeed these views that were of interest at the time of the study. Future studies will approach participation differently to hear from seniors who are more isolated or not actively engaged in community connections. Seeking out these views will contribute to another set of questions and build a more complete picture of how belonging in community happens for suburban dwelling seniors, how this sense of belonging impacts individual and community health. Future studies, informed by knowledge of the meaning of belonging for seniors themselves, can then examine the impact of belonging (including yet unstudied concerns of racialization and discrimination specific to this population) and particular interventions on the health of suburban dwelling seniors.

This study is seen as a place to begin to understand the experience of community belonging for seniors living in suburban neighbourhoods. The results have provided valuable insights about seniors' desires and interests for community belonging for the community site where the study was based. Most specifically, for the participants themselves, this research process has given older adults an opportunity to engage in knowledge making and to connect with one another in ways that exemplified their desires for belonging through feeling, knowing, being and doing within community life. The group data analysis experience brought participant groups, who would otherwise not connect, together and enabled their collaboration in community activity planning. Understanding community belonging from those who experience it was a goal of the study, and sparking connections and activity was an unexpected and positive project by-product, providing an example of McKnight and Block's (2010) "abundant community".

6. Conclusions

This qualitative research project employed group interview methods to explore community health and belonging with seniors living in the north east/north central suburbs of Calgary, a culturally diverse western Canadian city of over a million people. The purpose was to gather the views and opinions of groups of seniors who were currently engaging in community recreation and social activities in order to inform future program planning and contribute to a beginning understanding of the issues of belonging and connection for suburban dwelling seniors.

When a sense of belonging and connection is recognized and nurtured, seniors wish to contribute to each other and the community as a whole. Belonging is a holistic experience of knowing each other, being active citizens, doing things to employ one's talents for the community and the next generations and a feeling of affiliation and connection. This desire for diverse connection and belonging itself was found to be a powerful resource through which all communities can benefit. The findings

of the study have informed decision making and program development for seniors attending the recreation centre at the site of this project. The results and process of this work have also been shared with stakeholders such as city planners and health services. In addition, translation services, transportation and support for diverse groups and individuals to contribute to the community in various ways may benefit from these discoveries. Future lines of inquiry into the personal and structural supports of belonging will benefit multiple sectors concerned with urban planning and the growing older adult population living in suburban communities.

Acknowledgments

The authors acknowledge the administrative support of their home organizations, Mount Royal University and Vivo for Healthier Generations, as well as the contributions of participants and organizers with the participant groups in north-central Calgary. These older adults showed the potential of neighbourhoods, and generously shared their time, their personal reflections and their hope for belonging for all people in their suburban communities.

Conflict of Interests

The authors declare no conflict of interests.

References

Abada, T., Hou, F., & Ram, B. (2007). Racially mixed neighborhoods, perceived neighborhood social cohesion, and adolescent health in Canada. *Social Science & Medicine*, *65*, 2004–2017. https://doi.org/10.1016/j.socscimed.2007.06.030

Almedom, A. M. (2005). Social capital and mental health: An interdisciplinary review of primary evidence. *Social Science & Medicine*, *61*(5), 943–964.

Aronson, R. E., Wallis, A. B., O'Campo, P. J., & Schafer, P. (2007). Neighborhood mapping and evaluation: A methodology for participatory community health initiatives. *Maternal and Child Health Journal*, *11*(4), 373–383.

Baldwin, C. (2014). Assessing impacts on people's relationships to place and community in health impact assessment: An anthropological approach. *Impact Assessment and Project Appraisal*, *33*(2), 1–6. https://doi.org/10.1080/14615517.2014.983725

Block, P. (2008). *Community: The structure of belonging*. San Francisco, CA: Berrett-Koehler Publishers.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77–101.

Bruhn, J. G. (2009). *The group effect: Social cohesion and health outcomes*. New York, NY: Springer.

Caxaj, C. S., & Berman, H. (2010). Belonging among newcomer youths: Intersecting experiences of inclusion and exclusion. *Advances in Nursing Science*, *33*(4), E17–E30.

Dare, J., Wilkinson, C., Marquis, R., & Donovan, R. (2018). "The people make it fun, the activities we do just make sure we turn up on time". Factors influencing older adults' participation in community-based group programmes in Perth, Western Australia. *Health & Social Care in the Community*, *26*(6), 871–881. https://doi.org/10.1111/hsc.12600

Gallant, K., & Hutchinson, S. (2016). Perceptions of power within a membership-based seniors' community center. *Leisure Sciences*, *38*(4), 357–372. https://doi.org/10.1080/01490400.2015.1095660

Gerst-Emerson, K., & Jayawardhana, J. (2015). Loneliness as a public health issue: The impact of loneliness on health care utilization among older adults. *American Journal of Public Health*, *105*(5), 1013–1019. https://doi.org/10.2105/AJPH.2014.302427

Goll, J., Charlesworth, G., Scior, K., & Stott, J. (2015). Barriers to social participation among lonely older adults: The influence of social fears and identity. *PLoS One*, *10*(2). https://doi.org/10.1371/journal.pone.0116664

Grav, S., Hellzèn, O., Romild, U., & Stordal, E. (2012). Association between social support and depression in the general population: The HUNT study, a cross-sectional survey. *Journal of Clinical Nursing*, *21*(1/2), 111–120.

Green, A., Preston, J., & Janmaat, J. G. (2006). *Education, equality and social cohesion: A comparative analysis*. New York, NY: Palgrave Macmillan.

Harasemiw, O., Newall, N., Mackenzie, C. S., Shooshtari, S., & Menec, V. (2018). Is the association between social network types, depressive symptoms and life satisfaction mediated by the perceived availability of social support? A cross sectional analysis using the Canadian Longitudinal Study on Aging. *Aging and Mental Health*, *8*, 1–10.

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Med*, *7*(7), e1000316. https://doi.org/10.1371/journal.pmed.1000316

Krueger, R. A., & Casey, M. A. (2009). *Focus groups: A practical guide for applied research* (4th ed.). Thousand Oaks, CA: Sage Publications.

McKnight, J., & Block, P. (2010). *The abundant community: Awakening the power of families and neighborhoods*. San Francisco, CA: Berrett-Koehler Publishers.

Miller, G. (2017). *No place to grow old: How Canadian suburbs can become age friendly* (IRPP Insight Report March 2017/14). Montreal: Institute for Research on Public Policy. Retrieved from http://irpp.org/wp-content/uploads/2017/02/insight-no14.pdf

Mohnen, S., Völker, B., Flap, H., Subramanian, S., & Groenewegen, P. (2013). You have to be there to enjoy it? Neighbourhood social capital and health. *European Journal of Public Health*, *23*(1), 33–39. https://doi.org/10.1093/eurpub/cks039

Morris, E., & Pfeiffer, D. (2017). Who really bowls alone? Cities, suburbs, and social time in the United States. *Journal of Planning Education and Research*, *37*(2), 207–222. https://doi.org/10.1177/0739456X16647160

Nieminen, T., Martelin, T., Koskinen, S., Simpura, J., Alanen, E., Härkänen, T., & Aromaa, A. (2008). Measurement and socio-demographic variation of social capital in a large population-based survey. *Social Indicators Research*, *85*(3), 405–423.

Olesen, S., & Berry, H. (2011). Community participation and mental health during retirement in community sample of Australians. *Aging & Mental Health*, *15*(2), 186–197. https://doi.org/10.1080/13607863.2010.501053

Ottmann, G., Dickson, J., & Wright, P. (2006). *Social connectedness and health: A literature review* (GLADNET collection Paper 471). Ithaca, NY: Cornell University ILR School. Retrieved from https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1474&context=gladnetcollect

Patterson, Z., Saddier, S., Rezaei, A., & Manaugh, K. (2014). Use of the urban core index to analyze residential mobility: The case of seniors in Canadian metropolitan regions. *Journal of Transport Geography*, *41*, 116–125. https://doi.org/10.1016/j.jtrangeo.2014.08.013

Pekmezaris, R., Kozikowski, A., Moise, G., Clement, P. A., Hirsch, J., Kraut, J., & Levy, L. C. (2013). Aging in suburbia: An assessment of senior needs. *Educational Gerontology*, *39*(5), 355.

Pickett, K., & Wilkinson, R. (2008). People like us: Ethnic group density effects on health. *Ethnicity & Health*, *13*(4), 321–334. https://doi.org/10.1080/13557850701882928

Potvin, L., & Hayes, M. V. (2007). Place and health research in Canada. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, *98*, S6–S7.

Pronyk, P. M., Harpham, T., Busza, J., Phetla, G., Morison, L. A., Hargreaves, J. R., . . . Porter, J. D. (2008). Can social capital be intentionally generated? A randomized trial from rural South Africa. *Social Science & Medicine*, *67*(10), 1559–1570.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, *6*(1), 65–78.

Rajulton, F., Ravanera, Z. R., & Beaujot, R. (2007). Measuring social cohesion: An experiment using the Canadian national survey of giving, volunteering, and participating. *Social Indicators Research*, *80*(3), 461.

Reitz, J. G. (2009). *Multiculturalism and social cohesion: Potentials and challenges of diversity*. New York, NY: Springer.

Richard, L., Gauvin, L., & Gosselin, C. (2008). Staying connected: Neighbourhood correlates of social participation among older adults living in an urban environment in Montreal, Quebec. *Health Promotion International*, *24*(1), 46–57. https://doi.org/10.1093/heapro/dan039

Shaheen, S., Cano, L., & Camel, M. (2015). Exploring electric vehicle carsharing as a mobility option for older adults: A case study of a senior adult community in the San Francisco Bay area. *International Journal of Sustainable Transportation*, *10*(5), 406–417. https://doi.org/10.1080/15568318.2014.962675

Smith, J. (2012). Toward a better understanding of loneliness in community-dwelling older adults. *The Journal of Psychology*, *146*(3), 293–311. https://doi.org/10.1080/00223980.2011.602132

Statistics Canada. (2012). Census metropolitan area of Calgary: Calgary age distribution. *Statistics Canada*. Retrieved from https://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?LANG=Eng&GK=CMA&GC=825

Stav, W., Arbesman, M., & Lieberman, D. (2008). Background and methodology of the older driver evidence-based systematic literature review. *American Journal of Occupational Therapy*, *62*(2), 130–135. https://doi.org/10.5014/ajot.62.2.130

Steptoe, A., & Feldman, P. J. (2001). Neighborhood problems as sources of chronic stress: Development of a measure of neighborhood problems, and associations with socioeconomic status and health. *Annals of Behavioral Medicine*, *23*(3), 177.

Townsend, K. C., & McWhirter, B. T. (2005). Connectedness: A review of the literature with implications for counseling, assessment, and research. *Journal of Counseling and Development*, *83*, 191–201.

Toye, M. (2007). *Social cohesion: The Canadian urban context*. Ottawa: Parliamentary Information and Research Service.

VanderVen, K., & Schneider-Munoz, A. J. (2012). As the world ages: Attaining a harmonious future world through intergenerational connections. *Journal of Intergenerational Relationships*, *10*(2), 115–130. https://doi.org/10.1080/15350770.2012.673972

Völker, B., Flap, H., & Lindenberg, S. (2007). When are neighbourhoods, communities? Community in Dutch neighbourhoods. *European Sociological Review*, *23*(1), 99–114. https://doi.org/10.1093/esr/jcl022

Vozikaki, M., Papadaki, A., Linardakis, M., & Philalithis, A. (2018). Loneliness among older European adults: Results from the survey of health, aging and retirement in Europe. *Journal of Public Health*, *26*(6), 613–624. https://doi.org/10.1007/s10389-018-0916-6

Zeitler, E., & Buys, L. (2015). Mobility and out-of-home activities of older people living in suburban environments: 'Because I'm a driver, I don't have a problem'. *Ageing & Society*, *35*(4), 785–808. https://doi.org/10.1017/S0144686X13001086

About the Authors

Sonya L. Jakubec is a Professor in the School of Nursing and Midwifery at Mount Royal University. She is a Registered Nurse and community health researcher with a focus on social inclusion, belonging and multiple levels of intervention. The author of several articles and books in community health nursing, mental health and research literacy, Sonya's research program is concerned with lifespan wellbeing, including palliative care for those who experience structural vulnerabilities, social support for older adults and caregivers, and the connection of parks and natural places and health/wellbeing.

Marg Olfert holds graduate degrees in both nursing (University of Saskatchewan) and education (University of Calgary). She has a professional background in adult surgical nursing, critical care, and cardiology as well as nursing education and leadership. Her research interests include nursing history, interprofessional education, community development, seniors' health and belonging, licensure examination preparation and collaborative nursing programs.

Liza L. S. Choi is an Associate Professor in the School of Nursing in Midwifery at Mount Royal University. Liza's academic interests focus on diverse population health, and she has investigated the critical success factors for learning in English-as-an-Additional-Language among nursing students, online learning in the area of diversity and health along with studies of societal factors that impact the health of elderly (Chinese) Canadians and the use of electronic health tools to improve the health of patients.

Nicole Dawe holds an MBA from Memorial University in her home province of Newfoundland and Labrador on the east coast of Canada. She has a passion for integrating community building and storytelling into everything. She is currently sharing those gifts in development and leadership with the north-central Calgary's "Vivo for Healthier Generations", a large recreation, research and innovation hub on a mission to raise healthier generations and achieve their optimal health wherever they choose to live, work and play.

Dwayne Sheehan is an Associate Professor at Mount Royal University in Calgary Canada. His recent work in the area of physical literacy extends beyond the classroom and into the community. He collaborates extensively with municipal recreation, parks, charities and other leisure partners in conducting applied research related to physical literacy and community health. Dwayne is also an Adjunct Professor at the University of Calgary in the Faculty of Kinesiology.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 53–69
DOI: 10.17645/up.v4i2.1901

Article

Why Do(n't) People Move When They Get Older? Estimating the Willingness to Relocate in Diverse Ageing Cities

Hannah C. Haacke [1,*], Friederike Enßle [1], Dagmar Haase [1], Ilse Helbrecht [1] and Tobia Lakes [1,2]

[1] Department of Geography, Humboldt-Universität zu Berlin, 12489 Berlin, Germany;
E-Mails: hannah.haacke@geo.hu-berlin.de (H.C.H), friederike.enssle@hu-berlin.de (F.E.), dagmar.haase@geo.hu-berlin.de (D.H.), ilse.helbrecht@geo.hu-berlin.de (I.H.), tobia.lakes@geo.hu-berlin.de (T.L.)
[2] IRI THESys, Humboldt-Universität zu Berlin, 10099 Berlin, Germany

* Corresponding author

Submitted: 14 December 2018 | Accepted: 10 April 2019 | Published: 18 June 2019

Abstract
Two of the dominant processes shaping today's European cities are the ageing and diversification of the population. Given that the range of action usually decreases in later life, the living environment around the place of residence plays an important role in the social integration of the older generation. Hence, spatial patterns of residence indicate the extent of opportunities for the older population to engage in urban life and, therefore, need to be addressed by urban planning and policy. The aim of this article is to study the interrelation between diversity in later life—in terms of migrant history, gender, social class, and age—as well as planned and actual (past) movements of elders. We have chosen Berlin as a case study and draw from a quantitative survey with elders (age 60+) from diverse backgrounds (N = 427). Our results from descriptive analysis and statistical hypothesis tests show that age impacts people's past and planned movement; we observe a peak in the decisions to move at the age of 65–75 and a drop in the inclination to move among people over 80. None of the other factors is similarly influential, but we observe appreciable tendencies regarding the impact of gender and social class on planned movements. Our study suggests that variables other than classic socio-demographic data, such as apartment size, rent, social networks, and health, and their interrelations may offer a promising starting point for achieving a full picture of older people's movement behaviour.

Keywords
ageing cities; Berlin; diversity; elders; moving behaviour; survey; urban planning

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and the Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

Demographic change and diversification of the population are two developments that alter the social patterns of European cities. Increased life expectancy, social disparities, and transnational flows of migration lead to great diversity among older people in terms of age, social class, ethnicity, migrant background, and gender (Calasanti, 1996; Pain, Mowl, & Talbot, 2000). This poses new questions for planning and governance on the creation of age-friendly cities that respond to the needs of older people with different backgrounds.

With age, people are likely to become frailer and thus increasingly dependent on their neighbourhood (Cramm, van Dijk, & Nieboer, 2018). When experiencing mobility loss, access to facilities in proximity to home gets more important (Menec, Means, Keating, Parkhurst, & Eales, 2011), because unless social infrastructures, public transport, and health care are in the vicinity, elders may not be able to access them at all. In response to

decreasing action range in later life, meaning that elders spent most of their time at home or close to their homes (Baltes, Maas, Wilms, Borchelt, & Little, 1999), urban politicians and planners need to know where older people live and whether they are planning to relocate. Only then can planning and governance ensure proximity to health care and social services. Earlier studies focusing on ageing in place suggest that older people tend to stay in familiar surroundings as long as possible and feel especially attached to their home and neighbourhood (Rowles, Oswald, & Hunter, 2003; Scharf, Phillipson, & Smith, 2005). Nevertheless, research on relocation at old age indicates an increase in the number of elders who change their place of residence (Kricheldorff, 2017; Zimmerli, 2016). Reasons for relocation in later life are manifold and comprise environmental, socioeconomic, health-related, social, psychological, space, and time dimensions (Roy, Dubé, Després, Freitas, & Légaré, 2018). Early theories on relocation at old age distinguish between voluntary and involuntary moves, such as Wiseman's (1980) behavioural model that names forced movements due to decreasing functional abilities, financial status, and need for care. There is also Litwak and Longino's (1987) "Migration Patterns" that refers to the amenities move when people move shortly after retiring in order to improve their lifestyle and gain access to friends. Later studies refer to voluntary and involuntary moves as push and pull factors (Perry, Shen, & Gonzales, 2018). They report poor health, isolation, insufficient support, and feelings of insecurity as pushing factors, while factors that pull elders to relocate are, for example, attractive locations and the longing to be near friends and a certain community (Bekhet, Zauszniewski, & Nakhla, 2009). Smetcoren et al. (2017) analyse how socio-demographic and socio-economic factors, as well as kinship and health, impact both push and pull factors. They conclude that elders with lower household income and poor mental health are more affected by pushing factors while elders with higher income and homeowners are more likely to relocate due to pulling factors such as an attractive environment. Their findings suggest that the analysis of social diversity helps to understand who moves in later life and why.

Other studies deepen the knowledge on socio-demographic factors and relocation: Social class, in terms of education and income, influences the relocation of elders. While a lower income hinders movement in later life (Hayward, 2004; Sommers & Rowell, 1992; Teti, Kuhlmey, Dräger, & Blüher, 2012; Zimmerli, 2016), a higher level of education fosters the willingness to move (Biggar, 1980; Teti et al., 2012; Zimmerli, 2016). According to literature, the impact of age differs according to planned movement and actual movement. While studies on the willingness to relocate found that plans to relocate decrease with increasing age (Hansen & Gottschalk, 2006; Teti et al., 2012; Zimmerli, 2016), studies on accomplished movement do not show the same tendencies (Hansen & Gottschalk, 2006; Sommers & Rowell, 1992). Earlier studies have demonstrated that gender clearly affects the willingness to relocate (Choi, 1996; Krout, Holmes, & Erickson, 2003; Sommers & Rowell, 1992; Teti et al., 2012). All studies have found that women are more willing to move than men in later life. Perry et al. (2018) analyse the impact of ethnicity on relocation at an old age, suggesting that low education and home-ownership reduces the likelihood to relocate among older black adults while older white adults refrain from relocation in later life if they are in poor health condition or own a house and have a strong social network in their neighbourhood. Besides the aforementioned socio-demographic factors, earlier experiences in moving, as well as engagement in activities and social life, foster plans to move, while high housing satisfaction and withdrawal from social engagement hinder relocation (Zimmerli, 2016).

Larger survey studies such as the German Ageing Survey (DEAS, 2014) or a survey by the city of Berlin that analyses the quality of life, interests, and independence in later life (LISA), include no questions on planned or accomplished movements in later life (Bezirksamt Mitte von Berlin, 2010). Available statistical data in Berlin provides information on the movement of the population regarding migrant background, gender, and age. However, there are no additional diversity variables, such as ethnic diversity, migration channel, or variables concerning social class (StatIS, 2017). Thus far, few studies have deeply engaged with the diversity of older people in Western Cities (see Calasanti, 1996; Enßle & Helbrecht, 2018). Therefore, we lack knowledge about the effects of a society getting older and, simultaneously, more diverse. It is against this backdrop that our study seeks to analyse the interrelations between willingness to move in later life and diversity in terms of gender, age, social class, and migrant background. Our study adds to the existing knowledge as we analyse planned and past movement in later life across different countries of birth, nationalities, migration channels, age, levels of education, and income. By examining these interrelating factors, we seek to better understand how diversity affects decisions to relocate at old age. More specifically, we aim to answer the following questions: To what extent do age, social class, and migrant history influence actual and planned movements? Further, what reasons might cause older people from different backgrounds to move?

2. Research Design and Methods

2.1. Case Study

We chose Berlin as a case study for this research. Berlin is the capital of Germany and has approximately 3.7 million inhabitants. Among those are 900,000 inhabitants aged 60 years or older (StatIS, 2017). These elders are the target group in this case study. We chose Berlin because it is a big, dynamic city with many older people from heterogeneous and diverse backgrounds (see Table 1).

The historical division of Berlin leads to diversity among older migrants, comprising former guest workers from Mediterranean areas (former West-Berlin) and Socialist countries such as Vietnam, Angola, and Cuba (former East-Berlin). The project builds on two empirical steps: (1) qualitative, hypothesising research, and (2) a quantitative, hypothesis-testing survey to derive basic principles for an agent-based model that would allow for exploring future ageing cities.

2.2. Questionnaire and Sample

To address the research questions, we mainly relied on a survey on diversity and ageing that we conducted with elders in Berlin in 2018, because existing datasets do not provide enough information, neither on moving behaviour nor on social diversity. In addition, we included findings from 18 expert interviews that we conducted with representatives from different counselling centres, social initiatives, and social and cultural meeting places in 2017. We used expert interviews to gain first insights into the nexus between ageing and diversity to guide the following research. We interviewed experts from social initiatives and cultural centres for e.g., Turkish, Arabic, Russian, Vietnamese, Polish Elders; public counselling centres for elders with low income and three housing projects for respective older gays and lesbians as well as older females. The interviews followed an exploratory, open approach and comprised questions on housing conditions, challenges of the ageing process, social networks, and the influence of gender, ethnicity, religion, sexuality, (dis-)ability, and social class on the ageing experience. We analysed the interviews according to the qualitative content analysis after Mayring (2000). To compare the expert's perspective with the everyday life experience of older people, we discussed the main findings from the interviews in four focus groups with 26 elders in total.

The qualitative findings helped us develop our hypotheses for the quantitative survey and to adjust the research approach to our target group: people aged 60 years and above from different social and ethnic backgrounds. We chose 60 years as the age limit to include the change from working life to retirement (Engstler & Romeu Gordo, 2017). As ethnic minorities tend to be underrepresented in quantitative surveys (Feskens, Hox, Lensvelt-Mulders, & Schmeets, 2006), we refrained from a classic household survey. Rather, we used contacts that we had established earlier in our qualitative research as starting points and distributed the questionnaires through a snowball system. We asked our interview partners to distribute the questionnaire among their clients and included further institutions and groups that they recommended.

Figure 1 shows the distribution of the elders who answered the questionnaire in the 447 planning units of Berlin. A planning unit is smaller than a ZIP area. There is no cluster of answers in areas where the questionnaires had been distributed originally (distribution centres). Surveys were returned from areas in the city centre as well as from the suburban areas and cover former eastern and western parts of Berlin.

To raise the response rate among older migrants, we provided the questionnaire in eight languages: German, English, Turkish, Arabic, Polish, Russian, Bosnian, and Vietnamese. We chose these because the city of Berlin's nurs-

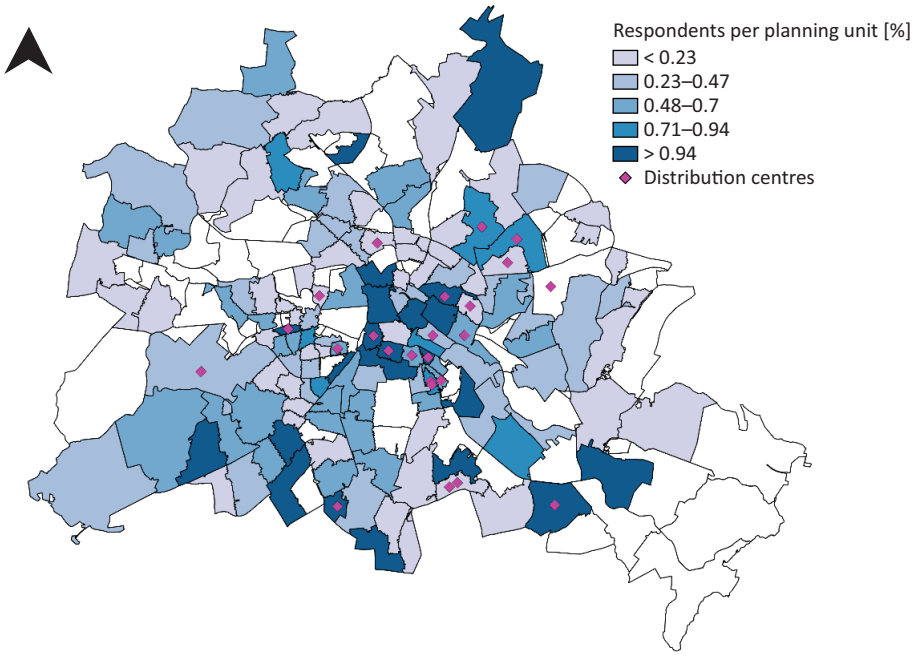


Figure 1. Distribution of respondents proportionate to all elders who answered the questionnaire and distribution centres in Berlin (Basemap: StatIS, 2017).

ing support centres publishes their information in these languages; therefore, it is likely that the majority of elders (or one of their relatives) speaks one of those. Accredited translators provided the translation. Even though every translation implies interpretation, we ensured comparable content of the questionnaires through pre-tests and careful checking with bilingual elders. We distributed our questionnaire in paper format and as an online questionnaire via the distribution centres.

Our questionnaire comprised four thematic sections in total—(1) older people and society, (2) social environment in later life, (3) changes with the end of work life, and (4) housing in old age—and a section on socio-demographic data. For this article, we analysed data from section (4) and the socio-demographic data (see appendix). To estimate if older people plan to move in the future, we asked: 'Do you sometimes think about moving somewhere else?' If this was answered positively, the following question was asked: 'For what reasons do you want to move?' For the answers, we offered ten reasons, as well as 'other' (see Section 3). The questionnaire also asked about the most recent movement and the reasons for it. If this most recent movement had happened since the person turned 60, it was included in the analysis as a past movement. As our analysis includes both, plans to move in the future and past (accomplished) movements since a respondent turned 60, the term 'willingness to move' refers to accomplished as well as panned movements. We do not differentiate whether the motivation to move was voluntary or forced.

We distributed 786 questionnaires in paper format and links to the online version via six organisations (a mailing list for older Gays and Lesbians, a mailing list of Berlin seniors' delegation, a centre for intercultural care in later life, a computer club, a mailing list of a housing project, and a mailing list of Berlin's community management institutions). Afterwards, we received 668 responses (475 online and 193 in paper format). This resulted in a response rate of 24.5% for the paper format. The exact response rate of the online version is unknown due to privacy issues pertaining to the organisation's mailing lists. After the exclusion of missing data and respondents younger than 60 years, our sample includes 427 participants. Of the completed questionnaires, 143 were completed on paper and 284 were answered online. Our sample comprised 279 female and 148 male participants, 374 participants who were born in Germany and 45 participants who were not born in Germany. In the following, we define people with migrant background as those who were not born in Germany, regardless of their nationality. A total of 395 questionnaires were completed in German and 32 in one of the languages mentioned above. The majority of respondents belonged to the 65–75 age group (32% were 65–70; 24% were 70–75), 15% were 60–65 years old, and about 8% were over 80 (7% were 80–85, 1% were 85–90, and 0.7% were above 90; see Table 1).

Table 1 shows a comparison of the sample from our questionnaire with population data from the Federal Statistical Office of Berlin (ER) for those aged 60 and older (StatIS, 2017). Note that the Federal Statistical Office differentiates people with migrant background and Immigrants (nationality other than German and/or at least one parent without a German nationality (StatIS, 2017). Our research does not distinguish between the two groups and our definition of migrant background only includes

Table 1. Characteristics of the survey population (in %).

Categories		Survey (2018)	ER population (2018)
Migratory Status	**German**	87.1	86
	Migrant Background	11.5	14
Gender	**Female**	65.3	55.7
	Male	34.7	44.4
Marital Status	**Married**	42.2	54.3
	Divorced	18.5	16.1
	Widowed	16.9	20
	Single	12.6	9.2
	Civil Union	1.6	0.4
	Other	7.5	< 0.1
Age	**60–64**	15.2	22.2
	65–69	32.1	20.5
	70–74	23.7	17.1
	75–79	20.4	19.2
	80–84	6.6	12.2
	85–89	1.2	5.7
	Above 90	0.7	3.2
Education	**Low education**	4.2	—
	Medium education	32.3	—
	High education	46.8	—

elders who were born in another country, therefore the number of People with migrant Background of the ER population sums up the number of immigrants and people with a migrant background. That means that an entire comparison of the two datasets is not possible. In comparison to former studies conducted in Berlin (see, e.g., DEAS, 2014), our sample adequately represents the older population of Berlin, particularly older people with and without a migrant background. More females than males answered the questionnaire. However, there is an underrepresentation of people over 80 years.

2.3. Hypotheses

We drew on the findings of our qualitative study from 2017 and literature to derive the following hypotheses on the influence of age, social class, migrant history, and gender on people's past and planned movement.

Age: In accordance with earlier studies and our qualitative data, we assumed that with increasing age, the willingness to relocate would decrease (Kemper, 2001; Teti, Grittner, Kuhlmey, & Blüher, 2014; Zimmerli, 2016). Furthermore, we presumed a peak of decisions to move at the age of 65–70 because people usually enter retirement at that age.

2.3.1. Social Class

Drawing on literature and our qualitative findings, we derived the hypothesis that a small income hinders movement (Hayward, 2004; Teti et al., 2012; Zimmerli, 2016), while a high level of education fosters willingness to move (see Biggar, 1980; Hayward, 2004; Sommers & Rowell, 1992; Zimmerli, 2016). We defined social class by household income (very low income: <800€, very high income: >5000€) and education level in line with the International Standard Classification of Education (ISCED; UNESCO Institute for Statistics, 2012).

2.3.2. Migrant History

We frame 'migrant history' from three angles: migrant background (country of birth other than Germany), nationality, as well as channel of migration (e.g., former guest worker, refugees, former students, etc.). Since to our knowledge, no research exists on migrant history and relocation in later life, we based our hypothesis on our qualitative research. It suggests that the channel of migration determines life chances and social inclusion in the host society, so it is likely to determine the ability to move, too. We presume that migrant background and nationality have no effect on the elder's relocation.

2.3.3. Gender

Earlier studies point to connections between gender and willingness to move (see, e.g., Teti et al., 2012), but we could not find a plausible connection between gender and willingness to relocate in later life in our qualitative research. To explore the contradiction between the state of the art and our findings, we included gender in our analysis.

As earlier studies argue that elders move to escape isolation and loneliness (Bekhet et al., 2009), we included family status (married; divorced; in partnership; widowed; in same-sex partnership) in our analysis to test whether it has any influence on the moving behaviour.

2.4. Data Analysis

We applied descriptive statistics to explore the survey data. We began by identifying three groups: older people who are planning to move (category 'planned movement'); older people who have already moved since they turned 60 ('past movement'); and older people who wish to neither move nor have moved before they turned 60. To test our hypothesis, we consecutively analysed our data in terms of social class, migrant history, and age. Descriptive analysis and statistical tests are used to test our hypothesis for planned movements and for past movements. It is unclear if elders who plan to move will really move. Therefore, we test the dependency between elders who belong to the category 'past movement' and 'planned movement' and the recommendation to a friend to move into the area. Our hypothesis comprises two cases: (1) that elders would not recommend friends to move into their area if they themselves want to move elsewhere, and (2) that they would recommend friends to move into their area if they recently moved there or do not want to move anymore.

2.5. Statistics

We chose three different tests for our mixed dataset for testing dependencies between variables: χ^2-test, analysis of variance (ANOVA) and multivariate binomial logistic regression.

Firstly, χ^2-tests were used to test the relationship between two categorical variables. Usually, the null hypothesis H_0 is that the variables are independent while H_1 means that variables are dependent (Kabacoff, 2015). The p-value is the measure of dependency, and if $p<0.05$, the relationship is significant with a probability of 95% (James, Witten, Hastie, & Tibshirani, 2013).

Secondly, ANOVA has been used to test the relationship between metric and categorical variables with the F-Test (Dormann, 2013). We did a one-way ANOVA because there is only one classification variable (Kabacoff, 2015).

Thirdly, multivariate binomial logistic regression has been used to test the non-linear influence of several variables on an independent variable. Contrary to linear regression, categorical and binary parameters can be tested and non-linear functions are allowed as predictors (Kabacoff, 2015). The statistical analysis was conducted with R in R-Studio.

3. Results

From our descriptive data analysis, we know that 46% of all elders from our survey (200 from 427) plan to move or have already moved. Note that these two events are not mutually exclusive, i.e., some people have already moved but plan to move again. Among all elders, there are 26% who plan to move and 26% who have already moved.

Figure 2 shows the age distribution of elders for past and planned movement. For past movements, the analysis shows that there is a peek at the age of 67; then, the number of movers remains comparatively high, has another peak at 70, and drops afterwards. There are only a few elders who have moved after they turned 80. Note that for past movement we considered the age of the participants at the time of movement. Therefore, it is possible that in some cases someone moved at a certain age even though no one who participated in the survey is of this age. This can be seen in Figure 2 for the age of 89. There are also peaks of planned movement at 65, 70, 71, and 73. After reaching age 80, none of our respondents is planning to move.

We cannot find any clear association between past or planned movement and migrant background: 47.1% of all people without a migrant background and 46.7% of those with a migrant background are willing to move. In some cases, older people from a certain country have a higher willingness to move, but we only get a tendency because of the small number of cases (N = 45) when the dataset is split into the different countries. The only group that wants to move more often consists of those who have left their country because of bad living conditions (55%, N = 11). We obtained 43 responses stating the reasons for migration. German language skills and length of stay in Germany did not show any impact on the willingness to move.

From our descriptive analysis, we find that 48.4% of all females and 43.9% of all males plan to move. Household income leads to less willingness to move when the monthly income is very low (<800€) or very high (>5000€). People who have an income between 800€ and 5000€ per month have more or less the same willingness to move. By contrast, there is a lower willingness to move the lower the education is. People with a high education want to move in 51.5% of cases, people with a medium education want to move in 44.9% of all cases, and people with a low education want to move in 38.9% of cases.

We found some tendencies for family status. Elders who are single (61%, N = 54), divorced (53%, N = 79), or in a homosexual relationship (80%, N = 10) have a higher moving willingness than elders who live in another relationship. However, only a few people who are living in a homosexual relationship answered the questionnaire.

The results of our statistical hypothesis tests are listed in Tables 2, 3, and 4. In Table 2, we demonstrate that there is a dependency between age and planned and past movement. In Table 3, the results of the χ^2-test are listed. There are dependencies between planned

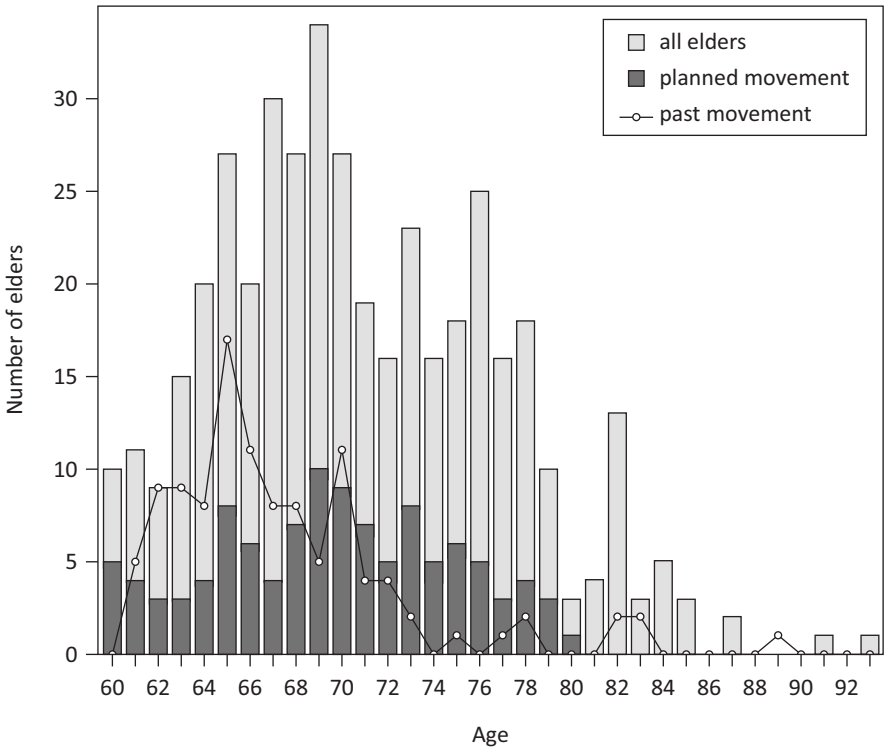


Figure 2. Total age distribution of the respondents, the age distribution of people who plan a movement, and distribution of moving age for past movement.

Table 2. Results of the analysis of variance (ANOVA).

Dependent variable	Independent variable	P-Value
Age	Planned movement	*
Age	Past movement	***

Note: $p < 0.05$ *, $p < 0.01$ **, $p < 0.001$ ***.

Table 3. Results of the χ^2-test.

Dependent variable	Independent variable	P-Value
Planned movement	Gender	*
Past movement	Gender	
Planned movement	Migrant background	
Past movement	Migrant background	
Planned movement	Recommendation for friends to move into the area	***
Past movement	Recommendation for friends to move into the area	**
Planned movement	Family status	**
Past movement	Family status	
Household income	ISCED	**

Note: $p < 0.1$ *, $p < 0.05$ **, $p < 0.005$ ***.

Table 4. Results of the multivariate binomial logistic regression with interaction between household income and ISCED.

Dependent variable	Predictor I	Reference group	Log odds	Std. error	P-Value
Planned movement	ISCED: low	ISCED: medium; moving: yes	1.6864	1.608	
Planned movement	ISCED: high	ISCED: medium; moving: yes	1.1415	0.5285	*
Planned movement	Household income	ISCED: medium; moving: yes	0.0004	0.0002	.
Past movement	ISCED: low	ISCED: medium; moving: yes	3.0306	2.0704	
Past movement	ISCED: high	ISCED: medium; moving: yes	0.2687	0.4995	
Past movement	Household income	ISCED: medium; moving: yes	0.0002	0.0002	

Note: $p \sim 0$ ***, $p < 0.001$ **, $p < 0.01$ *, $p < 0.05$.

movement, gender, family status, and if the elder would recommend friends to move into the area. Dependencies for past movement exist for elders if they would recommend friends to move into the area. There is a dependency between categorised household income and the ISCED as can be seen in Table 3. There are no dependencies between past or planned movement and migrant background.

There are dependencies, measured with multivariate binomial logistic regression (Table 4), between planned movement, high education, and household income. The log odds of the interaction values are low, which is caused by the low interaction values of household income and are, therefore, not included.

3.1. Reasons for Movement

Figure 3 lists the most frequently mentioned reasons for relocation. Age-related reasons for movement, such as planning to move into a nursing home or the fear of being unable to care for oneself, were rarely mentioned. More important are apartment-related factors such as apartment size, rent, or lack of handicapped access. If past and planned movements are summarised, then movement because the apartment is not obstacle-free is one of the most important reasons for movement (past 18.7%, planned 21%). Moving to a smaller apartment is the leading reason for past movement (25.6%). Other reasons for past movement are other reasons (5.5%), moving to assisted living (4.6%), moving into a shared accommodation (4.1%), and movement to Berlin (2.3%). Reasons for planned movement are bad connection with the train (4.4%), annoying living environment (3.9%), other reasons (3.9%), change of the living situation (3.9%), flat is too small (2.2%), no longer being able to live alone (2.2%), and movement to assisted living (1.1%).

4. Discussion

Our results show that almost half of the older people in our survey plan to move or have already moved. This contrasts with earlier studies, which stress the reluctance of older people to change their place of residence (Kemper, 2001; Scharf et al., 2005), but resonates with findings on the willingness of elders to relocate with the start of retirement (Kricheldorff, 2017; Litwak & Longino, 1987; Zimmerli, 2016). Even if we consider only respondents who put their intention into practice and actually moved after turning 60, a quarter of our sample still moved. The difference in our findings may be related to the destina-

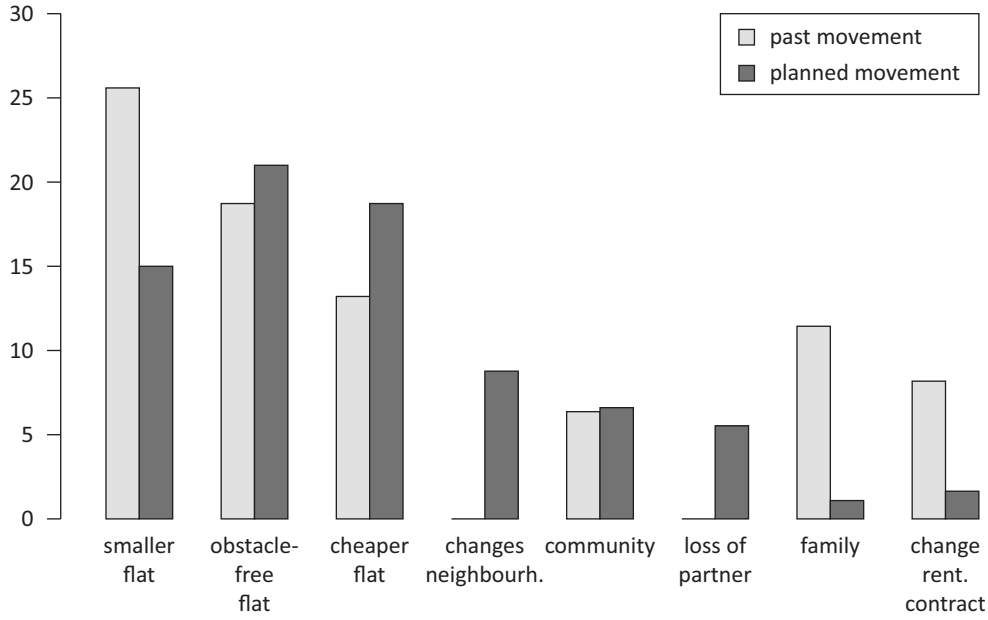


Figure 3. Main reasons for movement (% of respective movement type (past or planned), multiple answers possible).

tion of movement. While earlier studies tend to focus on movements to nursing homes and assisted living apartments (e.g., Nay, 1995; Taylor, Osterman, Will Acuff, & Østbye, 2005; Teti et al., 2012), our respondents moved (or planned to move) into apartments with lower rent or that were smaller or closer to their social networks. We cannot exclude that the elders moved into an old age residential home, but the main reason for movement is that the new flat is cheaper. In addition, the tense housing market in Berlin is likely to affect the comparatively high proportion of elders who consider moving. Both the consideration to move and actual movement might result from gentrification and fear of being displaced rather than from a voluntary decision.

4.1. Do Age, Social Class, and Migrant History Influence the actual and planned movements?

Our results on the association between diversity—age, social class, and migrant history—and willingness to relocate reveal patterns for age. Results from the ANOVA analysis show that there is a dependency between age and moving behaviour, which resonates with other studies (Hansen & Gottschalk, 2006; Teti et al., 2012). Our descriptive analysis supports our hypotheses that, with increasing age, willingness to relocate decreases and that there is a peak in the decision to move at 65–70 years. This links to the start of the official retirement age of 67 and fits Litwak and Longino's *amenities move* (1987). Age affects the inclination to move, but only until people turn 80. From a descriptive analysis, we know that people who are older than 80 do not plan to move at all. This finding confirms earlier studies that show high residential stability among the very old (Rowles et al., 2003). Therefore, we conclude that there is an influence of age on moving behaviour across people with different backgrounds.

In addition, our qualitative research indicates that social class—understood as level of education and income—influences decision making and behaviour in later life as income impacts the ability and intention to move in terms of the possibility or pressure to move, depending on income and rising rents. Furthermore, the household income influences plans for movement. When we combine education with household income, we observed some dependencies between social class and movement behaviour: There is a dependency between the plan to move and high education with according household income, but no dependency between past movement and social class. The result that elders with high education and income plan to move more often overlaps with other research (Hayward, 2004; Sommers & Rowell, 1992).

With regard to migrant history, we presumed based on our qualitative research that channel of migration would likely determine willingness to move, whereas a person's country of migrant background would not have an effect. In our descriptive analysis, we did not find any dependencies between migrant background/no migrant background and willingness to move. That was confirmed by the χ^2-test, as there is no dependency between the two variables. In our descriptive analysis, we found some evidence for the assumption that country of birth and nationality affect willingness to relocate. We also determined that the channel of migration had no impact on an older person's inclination to relocate. However, the numbers of respondents with specific countries of birth, nationalities, or migrant channels is low (e.g., eight people were born in Turkey and six were born in Bosnia), even though the proportion of elders with migrant background who answered the questionnaire nearly matches the proportions from the ER (11.5% in survey to 14% in ER). This means that no reliable state-

ment can be made based on the detailed breakdown of the different countries of origin or the migrant channel.

In the descriptive analysis, the gender of our respondents gives only a tendency of possible movement, showing that older females tend to be more willing to move than are older males. However, in the χ^2-test we found a dependency between planned movement and gender, meaning that gender has an influence on planning behaviour but not on movements that actually happened. This contradicts our initial assumption that there is no plausible connection between gender and willingness to relocate that we draw from our qualitative research, as the statistical analysis reveals the influence of gender on willingness to relocate. Our findings partly overlap with earlier studies (Krout et al., 2003) that confirm that gender influences the moving behaviour of older people. However, our finding that gender influences future movements contradicts Hansen and Gottschalk (2006), who find no connection between thoughts of moving and gender. Further studies should more deeply explore the differing impact of gender on planned movements as opposed to accomplished movements and related reasons. Apart from that, we found other variables that have an influence on moving behaviour, such as family status. Our findings suggest that elders that are living alone (divorced or separated) have a higher willingness to move. In the future, these aspects need to be analysed in more detail, for example, why a certain family status leads to certain moving behaviour. However, we did not find any dependencies between past movement and other variables. The reason for that may be that decisions are more complex and cannot be described with one or two variables, and factors that are more complex and their interrelation have to be taken into account.

4.2. Why Do the Elders Move?

Our research shows that desire for a smaller apartment, an obstacle-free apartment, and the need to move to a cheaper apartment are the top three reasons for movement (see Figure 3). Although elders with different backgrounds participated in our survey, all three reasons can be explained by ageing rather than by diversity: The desire to move to an obstacle-free apartment in later life is quite plausible because, Germany-wide, less than 3% of apartments are equipped for people with reduced mobility (Nowossadeck & Engstler, 2017). The large number of elders who move into smaller flats is a bit surprising because a movement into a smaller flat usually leads to higher housing costs due to increasing rents. Nevertheless, this seems not to be an issue in our sample. One possible explanation is the large number of elders with good education and possible higher income, which enables movement. In addition, some older people intend to move because of increasing rents. This could be a Berlin-specific result, given the tense situation of Berlin's housing market and on-going gentrification (see Holm, 2013), but since the average rent in Germany for people aged 40–85 increased between 1996 and 2006 by 57% (Nowossadeck & Engstler, 2017), the problem of rising rents also affects people across the country and possibly even abroad.

As income, usually decreases in retirement, older people are particularly vulnerable when it comes to gentrification and rental increases. These developments could lead to more movement among older people when they are forced to move into cheaper apartments or it could reduce movement because an old rental contract guarantees a relatively low rent. Consequently, moving to a smaller apartment could mean moving to an apartment with higher rent. That might explain that more people plan to move because of increasing rents than actually moved. Elders are not able to find a cheaper flat somewhere else and stay in their current apartment. This also helps to explain the low number of people with low income intending to relocate. It is quite plausible that older people with an income lower than 800€ per month cannot find any affordable apartments to move to. Our data also reveals older people's desire to age close to other older people, be it in special housing projects or in a neighbourhood of one's friends. This finding is in accordance with other studies pointing to the growing importance of social networks and friendship in later life (Böger, Huxhold, & Wolff, 2017).

To predict and evaluate the movement behaviour of elders, it might be helpful to differentiate between voluntary and involuntary factors because such an approach could point to possible destinations and reasons for movement (see Perry et al., 2018; Wiseman, 1980). Both aspects are partially covered in our survey, yet hard to differentiate.

Given that their prolonged lifespan now means that 'the elders' comprise an age group spanning nearly four decades, it becomes increasingly important to take motivations for movement other than age-related factors into account. Furthermore, it may be useful to split elders into smaller age cohorts, such as 'young old' (<80) and 'old old' (>80).

4.3. Limitations

The findings of our study are limited by the fact that people with low education are underrepresented. For a thorough statistical analysis, the sample size of people with a migrant background is too small to account for the different specific countries of birth and nationalities among the elders in Berlin. Thus, our hypothesis concerning migrant backgrounds cannot be answered conclusively despite our sample nearly representing the actual percentage of elders with migrant background in the population. In addition, the method of distributing the survey in counselling centres and meeting places for elders is likely to address a well-connected community and probably explains the underrepresentation of people aged 80+. It is also possible that the respondents misunderstood the question about household income and stated their indi-

vidual and not the combined income, which complicates any direct comparison.

Furthermore, it is difficult to estimate if elders who said that they sometimes consider moving will actually move. We tried to add reliability by comparing the dependency of planned movement with the question of whether elders would recommend friends to move into the area. Our findings show that there is a dependency between recommendation and planned movement, and so it is likely that a recommendation/no recommendation might lead to a stay in the area/movement to another area. However, there are still many factors that will influence future movements. Therefore, other aspects might be considered in the future as well (e.g., how close doctors are, or if there are parks close by), to make a prognosis on planned movement even more reliable.

Another limitation for the calculation of dependencies is that there are only a few respondents if the sample is split into smaller groups. Affected by this is, apart from the country of origin, low education (N = 24), people who live in a homosexual relationship (N = 10), and people who live in a relationship without being married (N = 17). The larger the number of respondents per category, the more reliable the estimated probabilities will be. The small number of respondents in the low education category, therefore, can be the reason for the high p-values in Tables 3 and 4. If the number of respondents is low, the resulting calculated p-values might not reflect the true p-values of the hypothesis and a significant relationship might exist in some of the cases (Casella & Berger, 2002).

A further aspect is that we were not able to cover all influencing factors in our survey to limit its overall length. We selected factors based on literature review and expert interviews, which we think are the most interesting and influential concerning diversity and mobility. However, to get a complete picture, further studies are needed to cover other aspects, such as the need for care or decreasing mobility in later life.

In this article, we did not analyse where the elders are moving to, as the focus lies on the current location and why an older person might want to move. The next step would be to analyse what the preferred destinations are, and whether certain groups have different targets than others. When this step is concluded, a prognosis of the development of the spatial pattern is possible.

5. Conclusions

The inhabitants of European cities are becoming both older and more diverse. As the everyday life of older people primarily takes place around their place of residence (Baltes et al., 1999), the key for age-friendly communities lies in the immediate living environment. Urban politicians and planners need to know older people's plans to relocate in order to ensure health care and social services nearby. Therefore, the aim of this article was to estimate the extent to which diversity in terms of age, gender, social class, and migrant history affects older people's willingness to relocate. Drawing on a quantitative survey from Berlin with 427 respondents, our analysis shows that age is one of the variables that affect willingness to move. We observed a peak in movements in the 65–70 age group and a drop in willingness to relocate at the age of 80. Small tendencies are visible with regard to gender in the descriptive analysis, as females show a slightly higher willingness to move. However, gender only has an influence on planned movement and not on actual movements according to dependency tests.

In addition, testing social class and its influence on movement shows that elders with high education plan to move more often, which also overlaps with findings of others (Teti et al., 2012; Zimmerli, 2016). We did not find any dependency between low education and willingness to move. A potential future research direction would be an analysis of leading factors of differences in planned and past movements, including research on voluntary and involuntary moves. Usually, elders with higher education have higher income and, therefore, more possibilities to move. However, the effort might be too high, which leads to no movement in the end because they might be able to cope with more push-factors due to their high income.

Reflecting on our initial objective of estimating how diversity in later life—in terms of age, social class, migrant history, and gender—affects willingness to relocate, we conclude that age clearly affects willingness to relocate, which could indicate a particular importance of age ahead of other differences. One might argue that the ageing process affects everyone equally, especially when it comes to very old age. Physical and mental constraints come to the fore and people experience similar change and meet similar challenges, regardless of their social and cultural background. In addition, it seems necessary to analyse age groups separately and not 'elders' as a single group. Other factors, such as gender and education, need to be analysed in detail in future studies since they show some tendencies concerning willingness to move.

We conclude that the 'classical' variables we used—social class, gender, age, and migrant history—are not sufficient to make general statements about the movement behaviour of older people. Other factors and their interrelations need to be included, as already conducted when using the variable 'social class' and its influence on past and planned movement. Considering the reasons our respondents gave for their motivation to move, such as moving to apartments that are accessible to the handicapped, smaller, or cheaper, it might be more appropriate to form groups based on people's physical condition, their social networks, or the size of their apartments.

Future research should start here and explore the impact of these less common variables on the willingness to relocate. It should also engage deeply with the interrelations between well-known variables. To identify influential variables, it will be helpful to analyse motivations be-

hind the willingness to move and rethink categories that are quite naturally used to group people. Given the complexity of the variable 'migrant history' for example, we recommend the application of a qualitative methodology to understand connections between migration-related experiences and willingness to relocate in later life. To enable planning and city administrations to respond appropriately to the existing willingness to move among older people, more research should address motivations for movement as well as destinations of relocation. As the broad age group of 'the elders' encompasses nearly four decades, not all movements are into nursing homes. Alternative destinations, such as projects for convivial ageing, small and easily accessible apartments, or quiet and green neighbourhoods, deserve more attention in research and practice. Knowing the determining factors behind older people's willingness to relocate, their motivations, and their preferred destinations is a first step to creating cities and communities that respect manifold needs and wishes of people in later life and providing liveable neighbourhoods for all generations.

Acknowledgments

Funding was provided by the German Research Foundation (DFG, Project number HE 2417/16-1 and HA 3484/8-1). The funding source had no involvement in any stage of the research. Many thanks to Lisa Johanna Thiele and Carlotta Marie Reh for distributing and collecting the questionnaires and to all participants in the project. We would like to thank three anonymous reviewers for improving this article with their contributions.

Conflict of Interests

The authors declare that there is no conflict of interest.

References

Baltes, M. M., Maas, I., Wilms, H. U., Borchelt, M., & Little, T. D. (1999). Everyday competence in old and very old age: Theoretical considerations and empirical findings. The Berlin aging study: Aging from, 70. In P. B. Baltes & K. U. Mayer (Eds.), *The Berlin aging study: Aging from 70 to 100* (pp. 384–402) New York, NY: Cambridge University Press.

Bekhet, A. K., Zauszniewski, J. A., & Nakhla, W. E. (2009). Reasons for relocation to retirement communities: A qualitative study. *Western Journal of Nursing Research*, *31*(4), 462–479.

Bezirksamt Mitte von Berlin. (2010). Lebensqualität, Interessen und Selbstständigkeit im Alter (LISA): Ergebnisse einer Befragung älterer Menschen im Bezirk Mitte von Berlin [Quality of life, interests and independence in age: Results of a survey with elder people in the disctict Mitte in Berlin]. *Beiträge zur Gesundheitsförderung und Gesundheitsberichterstattung*, *16*, 1–60.

Biggar, J. C. (1980). Who moved among the elderly, 1965 to 1970. *Res Aging*, *2*, 73–91.

Böger, A., Huxhold, O., & Wolff, J. K. (2017). Wahlverwandtschaften: Sind Freundschaften für die soziale Integration wichtiger geworden? [Elective affinities: Is friendship becoming more important for social integration?] In K. Mahne, J. K. Wolff, J. Simonson, & C. Tesch-Römer (Eds.), *Altern im Wandel—Zwei Jahrzehnte Deutscher Alterssurvey (DEAS)* [Aging through the course of time: Two decades German Ageing Survey] (pp. 257–271). Wiesbaden: Springer.

Calasanti, T. M. (1996). Incorporating diversity: Meaning, levels of research, and implications for theory. *The Gerontologist*, *36*(2), 147–156.

Casella, G., & Berger, R. L. (2002). *Statistical interference*. Belmont, CA: Brooks/Cole Cengage Learning.

Choi, N. G. (1996). Older persons who move: Reasons and health consequences. *Journal of Applied Gerontology*, *15*, 325–344. https://doi.org/10.1177/073346489601500304

Cramm, J. M., van Dijk, H. M., & Nieboer, A. P. (2018). The creation of age-friendly environments is especially important to frail older people. *Ageing & Society*, *38*(4), 700–720.

DEAS. (2014). Scientific use file deutscher alterssurvey (SUF DEAS) 2014, Version 1.0. *Deutsches Zentrum für Altersfragen*. Retrieved from https://doi.org/10.5156/DEAS.2014.M.001

Dormann, C. (2013). *Parametrische Statistik: Verteilungen, maximum likelihood und GLM in R* [Parametric statistics: Distributions, maximum likelihood and GLM in R]. Freiburg: Springer Spektrum.

Engstler, H., & Romeu Gordo, L. (2017). Der Übergang in den Ruhestand: Alter, Pfade und Ausstiegspläne [The transition into retirement: Age, paths and exit plans]. In K. Mahne, J. K. Wolff, J. Simonson, & C. Tesch-Römer (Eds.), *Altern im Wandel—Zwei Jahrzehnte Deutscher Alterssurvey (DEAS)* [Aging through the course of time: Two decades German Ageing Survey] (pp. 65–80). Wiesbaden: Springer.

Enßle, F., & Helbrecht, I. (2018). Ungleichheit, Intersektionalität und Alter(n)—Für eine räumliche Methodologie in der Ungleichheitsforschung [Inequality, intersectionality and age(ing): For a spatial methodology in research on inequality]. *Geographica Helvetica*, *73*, 227–239.

Feskens, R., Hox, J., Lensvelt-Mulders, G., & Schmeets, H. (2006). Collecting data among ethnic minorities in an international perspective. *Field Methods*, *18*(3), 284–304.

Hansen, E. B., & Gottschalk, G. (2006). What makes older people consider moving house and what makes them move? *Housing, Theory and Society*, *23*(1), 24–54.

Hayward, L. M. (2004). Mid-life patterns and the residential mobility of older men. *Canadian Journal on Aging*, *23*, 73–89.

Holm, A. (2013). Berlin's gentrification mainstream. In M. Bernt, B. Grell, & A. Holm (Eds.), *The Berlin reader.*

A compendium of urban change and activism (pp. 171–188). Berlin: transcript.

James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). *An introduction to statistical learning with applications in R*. New York, NY: Springer science + business media.

Kabacoff, R. I. (2015). *R in action: Data analysis and graphics in R*. Shelter Island, NY: Manning.

Kemper, F.-J. (2001). Wohnformen, Altersstruktur, Lebenszyklusphasen [Living arrangements, age structure and life cycle]. *Berichte zur Deutschen Landeskunde*, *75*(2/3), 137–146.

Kricheldorff, C. (2017). Strukturelle Rahmenbedingungen für neue Wohn-und Pflegearrangements im Alter [Structural framework conditions for new living and nursing arrangements in old age]. *Zeitschrift für Gerontologie und Geriatrie*, *50*(3), 185–186.

Krout, J. A., Holmes, H., & Erickson, M. A. (2003). Residential relocation. In J. A. Krout, & E. Wethington (Eds.), *Residential choices and experiences of older adults: Pathways to life quality* (pp. 27–48). Berlin: Springer.

Litwak, E., & Longino, C. F. Jr. (1987). Migration patterns among the elderly: A development perspective. *Gerontologist*, *27*(3), 266–272.

Mayring, P. (2000). *Qualitative Inhaltsanalyse. Grundlagen und Techniken* (7th edition) [Qualitative content analysis. Fundamentals and techniques]. Weinheim: Deutscher Studien Verlag.

Menec, V. H., Means, R., Keating, N., Parkhurst, G., & Eales, J. (2011). Conceptualizing age-friendly communities. *Canadian Journal on Aging/La revue canadienne du vieillissement*, *30*(3), 479–493.

Nay, R. (1995). Nursing home residents' perceptions of relocation. *Journal of Clinical Nursing*, *4*(5), 319–325.

Nowossadeck, S., & Engstler, H. (2017). Wohnung und Wohnkosten im Alter [Accomodation and cost of housing in later life]. In K. Mahne, J. K. Wolff, J. Simonson, & C. Tesch-Römer (Eds.), *Altern im Wandel—Zwei Jahrzehnte Deutscher Alterssurvey (DEAS)* [Aging through the course of time: Two decades German Ageing Survey] (pp. 287–300). Wiesbaden: Springer.

Pain, R., Mowl, G., & Talbot, C. (2000). Difference and the negotiation of 'old age'. *Environment and Planning D: Society and Space*, *18*(3), 377–393.

Perry, T. E., Shen, H.-W., & Gonzales, E. (2018). Further investigations of the social and material convoy: Exploring relationships between race, volunteering, and relocation. *Social Work Research*, *42*(4), 290–300.

Rowles, G. D., Oswald, F., & Hunter, E. G. (2003). Interior living environments in old age. *Annual Review of Gerontology and Geriatrics*, *23*(1), 167–194.

Roy, N., Dubé, R., Després, C., Freitas, A., & Légaré, F. (2018). Choosing between staying at home or moving: A systematic review of factors influencing housing decisions among frail older adults. *PloS One*, *13*(1).

Scharf, T., Phillipson, C., & Smith, A. E. (2005). Social exclusion of older people in deprived urban communities of England. *European Journal of Ageing*, *2*(2), 76–87.

Smetcoren, A.-S., de Donder, L., Dury, S., de Witte, N., Kardol, T., & Verté, D. (2017). Refining the push and pull framework: Identifying inequalities in residential relocation among older adults. *Ageing & Society*, *37*(1), 90–112.

Sommers, D., & Rowell, K. (1992). Factors differentiating elderly residential movers and nonmovers: A longitudinal analysis. *Population Research and Policy Review*, *11*, 249–262.

StatIS. (2017). Einwohnermelderegister [Resident's registration office]. *Das Statistische Informationssystem Berlin-Brandenburg*. Retrieved from https://www.statistik-berlin-brandenburg.de/Statistiken/statistik_met.asp?Ptyp=650&Sageb=12041&creg=BBB&anzwer=10

Taylor, Jr., Osterman, D. H., Will Acuff, J., S., & Østbye, T. (2005). Do seniors understand their risk of moving to a nursing home? *Health Services Research*, *40*(3), 811–828.

Teti, A., Grittner, U., Kuhlmey, A., & Blüher, S. (2014). Wohnmobilität im Alter [Residential mobility in old age]. *Zeitschrift für Gerontologie und Geriatrie*, *47*(4), 320–328.

Teti, A., Kuhlmey, A., Dräger, D., & Blüher, S. (2012). Prädiktoren individueller Wohnmobilität älterer Frauen und Männer [Predictors of individual residential mobility in older women and men]. *Prävention und Gesundheitsförderung*, *7*(4), 278–285.

UNESCO Institute for Statistics. (2012). *International standard classification of education ISCED 2011*. Montreal: UNESCO Institute for Statistics.

Wiseman, R. F. (1980). Why older people move: Theoretical issues. *Research on Aging*, *2*, 141–154.

Zimmerli, J. (2016). Wohnmobilität im Alter–ein zukunftsfähiger Ansatz für die Siedlungsentwicklung nach innen? [Residential mobility of the elderly: A sustainable approach to higher residential density?] *disP–The Planning Review*, *52*(3), 61–72.

About the Authors

Hannah C. Haacke is a PhD candidate and Research Associate in the Applied Geoinformation Science lab at the Geography Department of Humboldt-Universität zu Berlin. She received the BSc degree in Geographical Sciences from the Freie Universität Berlin in 2013 and the MSc degree in Geodesy and Geoinformation Science, with a major in Geoinformation Science from the Technische Universität Berlin in 2016. She is currently working on models that describe the development of the spatial distribution of population groups.

Friederike Enßle is a PhD Student and Research Associate in the Cultural and Social Geography lab at the Geography Department of Humboldt-University in Berlin. She holds a bachelor's degree in Area Studies (Central Asian Studies) and a Master's Degree in Urban Geography. Her current research focuses on the interplay of age(ing) and diversity from a spatial perspective.

Dagmar Haase is a Professor in Landscape Ecology and Urban Ecology at the Geography Department of Humboldt-Universität zu Berlin, and a Guest Scientist at the Helmholtz Centre for Environmental Research—UFZ, Leipzig, Germany. Her core expertise is in modelling urban land use change, urban system dynamics, and urban telecouplings. Dagmar's focus is also on the quantification and assessment of ecosystem services and landscape functions using statistics and earth observation data.

Ilse Helbrecht is a Professor of Cultural and Social Geography at the Geography Department of the Humboldt-Universität zu Berlin since 2009. She received the Caroline von Humboldt Professorship in regard to an Excellence Initiative in 2018. This year, the former director of the Georg-Simmel centre for Metropolis Research was selected as Fellow for the Thomas Mann House of the Federal Republic of Germany in Los Angeles.

Tobia Lakes is a Professor of Applied Geoinformation Science at the Geography Department of Humboldt-Universität zu Berlin since 2015. Previously, she had an assistant professorship at the Department. Tobia Lakes's expertise is in modelling human-environment interactions in urban areas. She has a strong focus on spatio-temporal modelling techniques combining different data sources.

Appendix

Survey 2018

Block IV: Living in old age

With the next questions, we want to cover your living situation and what you like or dislike about your apartment/house.

13. What year did you live move into your current apartment/house?

_____

14. With whom do you live?

Please tick every box that applies.

☐ I live alone.
☐ with my partner
☐ with my child/children
☐ others: _____
☐ with my grandchild/grandchildren
☐ with my parents
☐ with friends

15. Do you live in a

☐ rental ☐ flat ☐ own property ☐ other: _____

16. Approximately how much do you pay per month for your apartment/house? Please consider additional cost like electricity, heating, fees for garbage.

_____

17. On which floor do you live? (Ground floor = 0)

_____

18. Do you have an elevator in your building?

☐ Yes ☐ No

19. To what extent do the following statements apply to you?
Please check:

In my residential area,	Strongly agree	Agree	Partly	Disagree	Strongly disagree
… there are enough stores.	☐	☐	☐	☐	☐
… there are enough doctors and pharmacies.	☐	☐	☐	☐	☐
… I sometimes feel unsafe.	☐	☐	☐	☐	☐
… I am well connected to buses and trains.	☐	☐	☐	☐	☐
… there are enough parks and green areas.	☐	☐	☐	☐	☐

20. How often do you use the parks and green areas in your neighbourhood?

☐ (nearly) daily
☐ 1–3x per week
☐ 1–3x per month
☐ rarely more than 1x per month
☐ never

21. Are the parks and green areas accessible and easily reached by foot?

☐ yes ☐ with constraints ☐ no

22. Would you recommend to a good friend to move into your residential area?

☐ yes, because _____
☐ no, because _____
☐ undecided

23. When was the last time you moved?

_____

24. What was the postal code of your previous residential area?

If you moved before the postal code in Berlin was changed in 1993, you can also write in the two-digit postal code.

Postal code: _____

25. What were the reasons for your last move?

☐ Moving into a smaller apartment
☐ Moving into a barrier-free apartment
☐ Moving into a cheaper apartment
☐ Termination of the landlord
☐ Moving into a form of assisted living (e.g. senior citizen housing)
☐ Moving into a shared apartment
☐ Moving to a family member
☐ Other reasons: _____

26. Do you think sometimes about moving somewhere else?

☐ yes → continue with question 27 ☐ no → continue with question 28

27. For what reasons do you want to move?

☐ In my apartments there are steps e.g. thresholds, entrance to shower.
☐ The apartment is too big.
☐ The apartment is too small.
☐ The connection to bus and trains is bad.
☐ The rent is too high.
☐ The neighbourhood changed.
☐ Loss of partner.
☐ I can no longer manage alone.
☐ There is no suitable outpatient care service nearby.
☐ I can move to a care facility.
☐ Other reasons: _____

V: Personal information

28. In which year were you born?

_____

29. Are you…

☐ male
☐ female
☐ different sex

30. What is your current postal code?

_____

31. Are you…

☐ married
☐ divorced
☐ widowed
☐ in partnership
☐ Others: _____
☐ single
☐ living separated
☐ civil union (same-sex)
☐ in same-sex partnership

32. In which state were you born?

_____

33. What is your nationality?

_____

34. Since when have you been living in Germany?

☐ I was born in Germany. → **continue with question 36**
☐ for _____ years

35. If you were not born or raised in Germany:

I came to Germany…

☐ as part of a recruitment process (guest worker/contract worker)
☐ for my studies
☐ for an apprenticeship
☐ I had to leave my country because of the bad living situation
☐ family reunification
☐ others: _____

36. How would you rate your knowledge of the German language?

☐ German as mother tongue
☐ fluent
☐ very good to good
☐ I get along
☐ not very well
☐ I understand only a little
☐ I do not speak German

37. How many years did you attend school?

_____

38. What is your highest school-leaving qualification?

_____ ☐ I do not have one.

39. What is your highest training qualification (e.g. assistant (Geselle), foremen (Meister) or final degree)?

_____ ☐ I do not have a training qualification.

40. What profession did you practice last/are you practicing?

_____ ☐ homemaker

41. How much is your monthly net household income approximately?

_____

42. How much were you disturbed or impaired in the last seven days by the following problems or discomforts?

	Not at all	A bit	Quite	Strongly	A lot
Physical limitations (e.g. problems while walking or taking stairs, back pains)	☐	☐	☐	☐	☐
Diabetes	☐	☐	☐	☐	☐
Chronic pains	☐	☐	☐	☐	☐
The feeling of being lonely	☐	☐	☐	☐	☐
Insomnia (e.g. problems to find sleep or sleeping through the night)	☐	☐	☐	☐	☐

43. How would you describe your state of health?

☐ very good ☐ rather bad
☐ good ☐ bad
☐ okay

44. Do you have a care level (Pflegestufe)?

☐ Yes ☐ No

45. Do you have a severely handicapped pass (Schwerbehindertenausweis)?

☐ Yes ☐ No

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 70–82
DOI: 10.17645/up.v4i2.1919

Article

Current Uptake of Technology Related to the Built Environment to Support Older Adults to Live Independently in Their Community

Julie Futcher [1], Federica Pascale [2], Alison Pooley [2,*] and Sally-Anne Francis [3]

[1] Urban Generation, London, N1 3BU, UK; E-Mail: julie@climate22.com
[2] School of Engineering & the Built Environment, Anglia Ruskin University, Chelmsford, CM1 1SQ, UK;
E-Mails: federica.pascale@anglia.ac.uk (F.P.), alison.pooley@anglia.ac.uk (A.P.)
[3] Faculty of Health, Education, Medicine and Social Care, Anglia Ruskin University, Chelmsford, CM1 1SQ, UK;
E-Mail: sally-anne.francis@anglia.ac.uk

* Corresponding author

Submitted: 15 December 2019 | Accepted: 18 February 2019 | Published: 18 June 2019

Abstract
Current forecasts predict that, in line with increasing global populations and extended life expectancy, older adults will dominate the population structure. To accommodate this demographic shift, governmental policies point to 'ageing in place' as key. This article outlines research findings of an initial investigation into the uptake of technology to support 'ageing in place'. The study sets out to identify both incentives and barriers to the uptake under four key activity criteria—medical, monitoring, mobility and social—at three built environment scales—home, street and neighbourhood, for urban, semi-urban and rural locations—to support older adults to live independently in their community. Results show that whilst there are significant and justified concerns over the limitations of physical conditions to support 'ageing in place', most physical conditions along with age are not barriers to the uptake of technology, as uptake is high regardless of circumstances. However, the study revealed that uptake is dependent on level of training, if shown to lead to increasing independence, includes a level of 'enjoyment of use', and does not replace existing physical relationships. The study also identified that there is limited research around the use of technology for either mobility or social activities outside the home; rather, research focus is concerned with medical monitoring in the home. Finally, research overlooks the role of geographic demographics to support 'ageing in place'. The results of this research can provide useful guidelines co-created with older adults for the development of new policies to 'ageing in place'.

Keywords
ageing in place; geographic demography; independent living; older adults; technology

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

In line with current forecasts of increasing global population numbers and extended life expectancy, we are currently experiencing a demographic shift in the population structure (United Nations, 2017). This shift will result in the reversal of the age dependent ratio where, for the first time, the percentage of the working-age population is outnumbered by the non-working-age population and dominated by the older generations (UK Government, 2017). In addition, this trend is set to continue; the United Nations (2017) predict that by the 22nd century the global population of persons over 60 will triple from current levels to 3.1 billion, placing significant strain on resource efficiency, for both current and future generations (see Table 1 and Figure 1). To address the emerging tension between resource efficiency and the needs of an ageing and dependent population, research is be-

Table 1. Generation timeline: 1928–2100, alongside characteristics for current birth-cohorts.

	The Silent Generation	Baby boomers	Generation X	Millennials	Generation Z
Born Between	1928 and 1945	1946 and 1964	early-to-mid 1960's to the early 1980's	1981 and 1997;	1997-Present; (0–21 years old)
characterised by	rapidly improving schools and a free health care through the NHS—limited early exposure	analogue childhood and wary of digital technologies. Cold-War attitude	emerging digital age	high familiarity with communications, media, and digital technologies	fully integrated into smart technology with limited exposure to analogue technologies
Age 2030	between 102 and 85	between 84 and 66	between 70 and 50	between 49 and 33	between 33 and 12
Age 2050	105 and over	between 104 and 86	between 90 and 70	between 69 and 53	between 53 and 32
Age 2100				103 and over	between 103 and 82

ing undertaken that explores both the challenges and opportunities this demographic shift brings, much of which focuses on the benefits of 'ageing in place'.

'Ageing in place', defined as living in the community, with some level of independence rather than in residential care, has been identified as fundamental to autonomy, social participation and good health and wellbeing (e.g., Davey, Nana, de Joux, & Arcus, 2004; Tinker et al., 1999; Wiles, Leibing, Guberman, Reeve, & Allen, 2012). In addition, 'ageing in place' is considered a cost-effective solution lowering demands on specialised housing, whilst limiting impact on already overstretched care professionals (Age UK, 2016; World Health Organization, 2007). This position is reflected in both national and international policy on ageing and older adults which supports ageing in place as a key component of sustainable development goals (e.g., Fattah, Sung, Ahn, Ryu, & Yun, 2017; Peek et al., 2016). However, whilst the literature points to a successful 'ageing in place' agenda to be dependent on an effective, smart technology-led, health and wellbeing infrastructure, concerns have been raised over the development of appropriate technology suitable for the needs of its intended user group. These concerns focus around socioeconomic status, spatial inequality (geography) and health profiles (e.g., Le Deist & Latouille, 2016; Tsekleves, Darby, Whicher, & Swiatek, 2017; Zandieh, Martinez, Flacke, Jones, & van Maarseveen, 2016), as well as the limited experience and exposure to smart technologies of the current and near future cohort of ageing and older adults (Rogers & Mitzner, 2017).

The work presented here sets out to identify both incentives and barriers to the uptake of technology to support activities of daily living (ADL) and to determine if environmental and geographical characteristics influenced the uptake of technology to support 'ageing in place'. Outcomes from this initial investigation are presented in the following sections.

2. Methods

This study focuses on both incentives and barriers to the uptake of technology under four key activity criteria: medical, monitoring, mobility and social. These activity criteria were identified in the early stages of the research as key supporting activities to aid independence of an ageing population, in both their homes and the wider environment. This was investigated through a mixed research methodology, which combined a scoping study (abbreviated here as ScSt) that reviewed both the grey (policy, reports, standards, etc.) and the academic literature along with the focus group sessions that discussed personal use of technology to support ADL. Both the ScSt and the focus groups (abbreviated here as FGs) investigated the uptake of technology related to three built environment scales (home; street; neighbourhood) and for three geographical scales (inner urban; semi-urban; rural). These scales were chosen to explore the uptake of technology outside the home and in the wider community.

Whilst an ScSt can be undertaken using a range of different methodologies, in general it refers to the mapping of evidence or research across an area of interest as background to "inform future research", and no formal methodology exists (O'Brien et al., 2016). Here a "preliminary assessment of the potential size and scope of the research literature", as defined by Grant and Booth (2009), was conducted to explore both incentives and barriers to the current uptake of technology related to the built environment to support older adults to live independently in their community. This included a review of the grey literature, alongside key policy and statistical data to identify studies relevant to 'ageing in place'. This was followed by a review of the academic literature.

The academic literature was identified by using the database Scopus. The definition of the keywords took

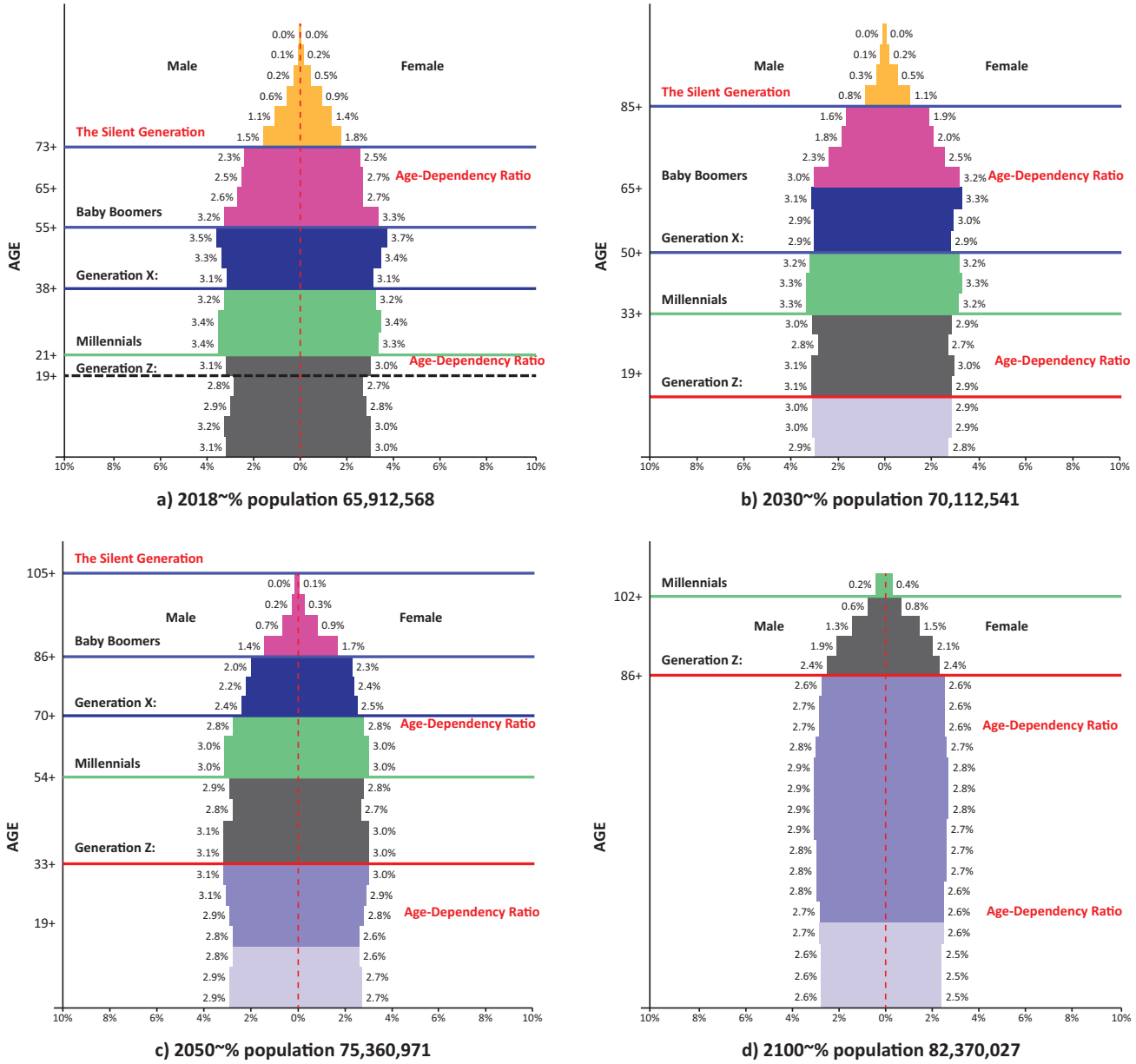


Figure 1. Population pyramids for the 5 generational birth-cohort (the Silent Generation, Baby Boomers, Generation X, Millennials and Generation Z) in England and Wales. Notes: The Y axis shows variation of age range for each generation cohort for the target years changes in population structure; age groups based on age distributions of United Nations (2017).

place in stages by selecting the words among the numerous ones relevant to the topic. The process led to the establishment of eleven words that were placed in relation to each other through the Boolean operators AND and OR. The keywords chosen are: ((old* OR ag* OR senior OR elderly) AND (hous* OR home OR neighb??rhood) AND (technolog* OR "smart technolog*" OR sensor* OR digital)). In terms of the academic literature review, the search was limited by five boundary conditions:

1. Research field: Title-Abstract-Keywords;
2. Document type: Papers;
3. Publication years: 2016–2018;
4. Language: English;
5. Subject areas: Medicine; Engineering; Social Science; Compartmental; Environment; Nursing; Health Profession; Arts.

Under these parameters the search identified 210 academic papers (Figure 2), these were categorised under the four key activity criteria, then further divided into 19 subcategories, allowing various trends to be identified (Figure 3).

In order to verify the key findings identified in the ScSt as representative of the ADL of older adults, a series of four FGs were arranged. These FGs were devised to investigate how we engage with technology as we age, alongside how/if technology enables and/or encourages

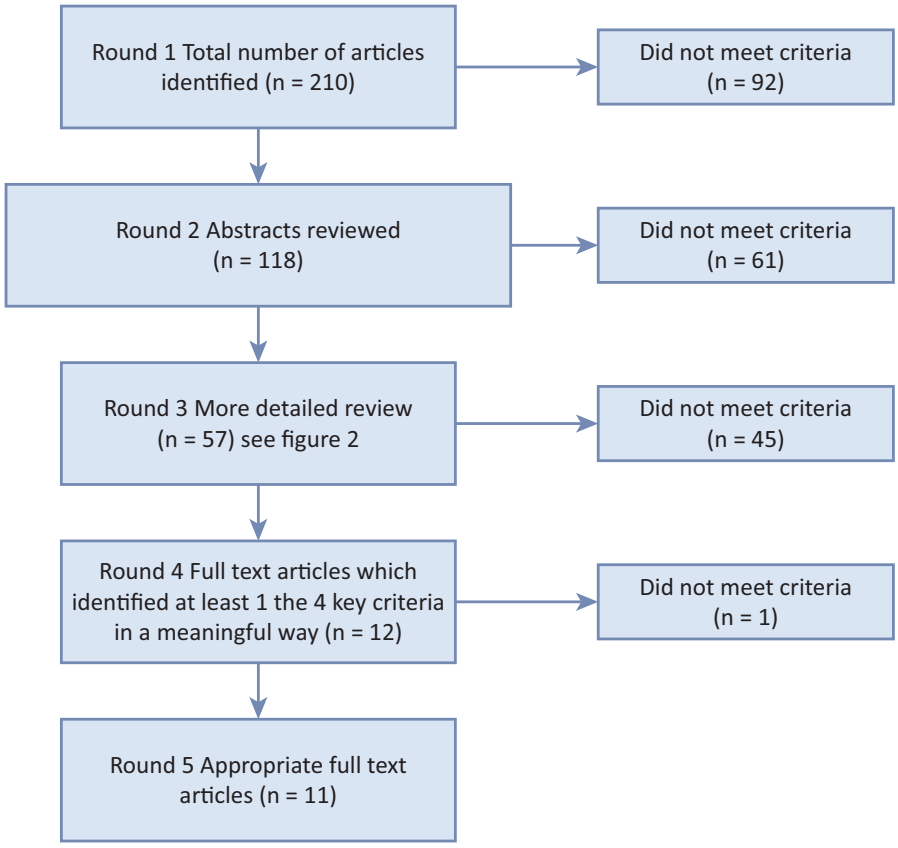


Figure 2. Flow diagram outlining selection process to identify papers that address the four key activity criteria in a meaningful way.

mobility and social activities. In addition, we were interested to find out if, how, and where we live results in users relating to the four key research activity criteria in different ways. It was believed that the FG discussions could generate information and viewpoints of personal experience not currently available.

The FGs were selected from existing support and community groups as they satisfied the geographical requirements (i.e., inner urban, semi urban, rural). Each existing community group had a different focus of activity or common interest. The two semi urban groups (Group 1 and Group 2) were based in a low density urban area; Group 1 was an existing bowling club and Group 2 a Type 2 diabetes support group, both groups met regularly. Group 3 comprised of participants of a lively community centre in a high density inner urban environment and the participants in Group 4 were all members of a knitting club based in a relatively isolated rural village pub. The FGs were organised through a key community contact for each of the existing groups and were held on the same day and at the same location as the groups' usual regular meetings. The four FGs took place at three different geographical locations in order to help identify if the geographically-related demographic factor influences the uptake of technology, and to identify who, when and why technology is being used by participants. Background data, i.e., where and how the individual participants lived, their age group and gender, alongside type and length of time spent living in their present home, was collected during the FGs. These results are presented in Table 2.

The group discussions were driven by the results of the ScSt and divided into four sections:

Section A. We identified more background and demographics of the group. These included details on how participants saw themselves living as they age, alongside their health profile;

Section B. Enabled us to identify current level of use of technology in the home and wider community, including if levels of use and acceptance were as high as suggested in the literature, alongside if each group gave different insights into the relationship between technology, the four activity criteria and geographical location;

Section C. We aimed to identify how technologies for ADL were perceived and used for socialising and accessing social activities; the ability of users to access services and travel easily;

Section D. What opportunities in terms of both incentives and barriers to mobility outside the home exist? This included both personal characteristics and contextual factors.

Table 2. Focus group demographic: Information gathered through a short questionnaire.

	Group Activity	(1) Bowling Club	(2) Type 2 Diabetes	(3) Community Centre	(4) Village Pub
	Date	15/06/2018	27/06/2018	07/08/2018	21/11/2018
Geographical scale	Inner Urban			5	
	Semi-Urban	8	6		
	Rural	2	4		10
Group age	**Group size**	10	10	5	10
	50–54				3
	55–59		1	2	2
	60–64	1		1	1
	65–69	5		1	1
	70–74	3	3		
	75–79	1	4		
	75–79			1	
	80–84		1		
	other		1 @ 18yrs		
Gender	male	4	3	1	5
	female	6	7	4	5
	Living with at least 1 other person	9	2	0	9
Type of accommodation	house	10	4		10
	sheltered HSG flat		5	4	
	bedsit			1	
Years at accommodation	<1				
	<5	3	1	1	3
	<10	4			3
	>10	3	9	4	4

FGs discussions were digitally recorded (using two devices) and notes were made during each discussion. There were always at least two researchers at each FG meeting, and at least two researchers made additional notes from the digital recording following the FG. These notes were compared for accuracy and key themes identified. Full transcription of the recordings of the FG discussions was not undertaken due to time and budget limitations. The research was approved through the institutions research ethics committee.

3. Results

The review of academic literature identified a total of 210 papers, 92 were considered outside the scope of the study and were disregarded in the first round (Figure 2). From the remaining 118 papers, 97 identified at least one of seven technologies subcategories: information and communications technology and assistive technology (IT/ICT/AT); surveillance/security/monitoring; prompting wearable / sensors; mHealth; robots and automation, and smart home technology (SHT). As expected, there were a number of interconnected topics, with papers falling under more than one category. The highest-ranking single subcategory was 'case studies' (54), followed by 'medical/health and wellbeing' (49). However, only six of these studies were considered suitable for further review; this was followed by 'independent living' (43) and 'understanding needs' (40). Thirteen studies were concerned with future scenarios, and 16 concerned with mobility, a key 'activity' criterion; however only six of these were suitable for further investigation (Figure 2). Twenty studies were specifically concerned with falls in the home and although technically fell within our four activity criteria, were considered in one way or another outside the scope of this study (Figure 3).

Studies concerned with technology formed a large section of the reviewed papers. However only four studies were concerned with technology outside the home, and eight studies concerned with mobility. In addition, seven studies were concerned with social activity and/or social isolation, five of which were concerned with both mobility and social activities; again, these fell outside the brief. In total only 12 papers identified at least one of the four key activity criteria in a meaningful way (Table 3). On further review one of the 12 papers was disregarded and considered unsuitable as it did not meet the criteria and categories of the remaining 11 papers.

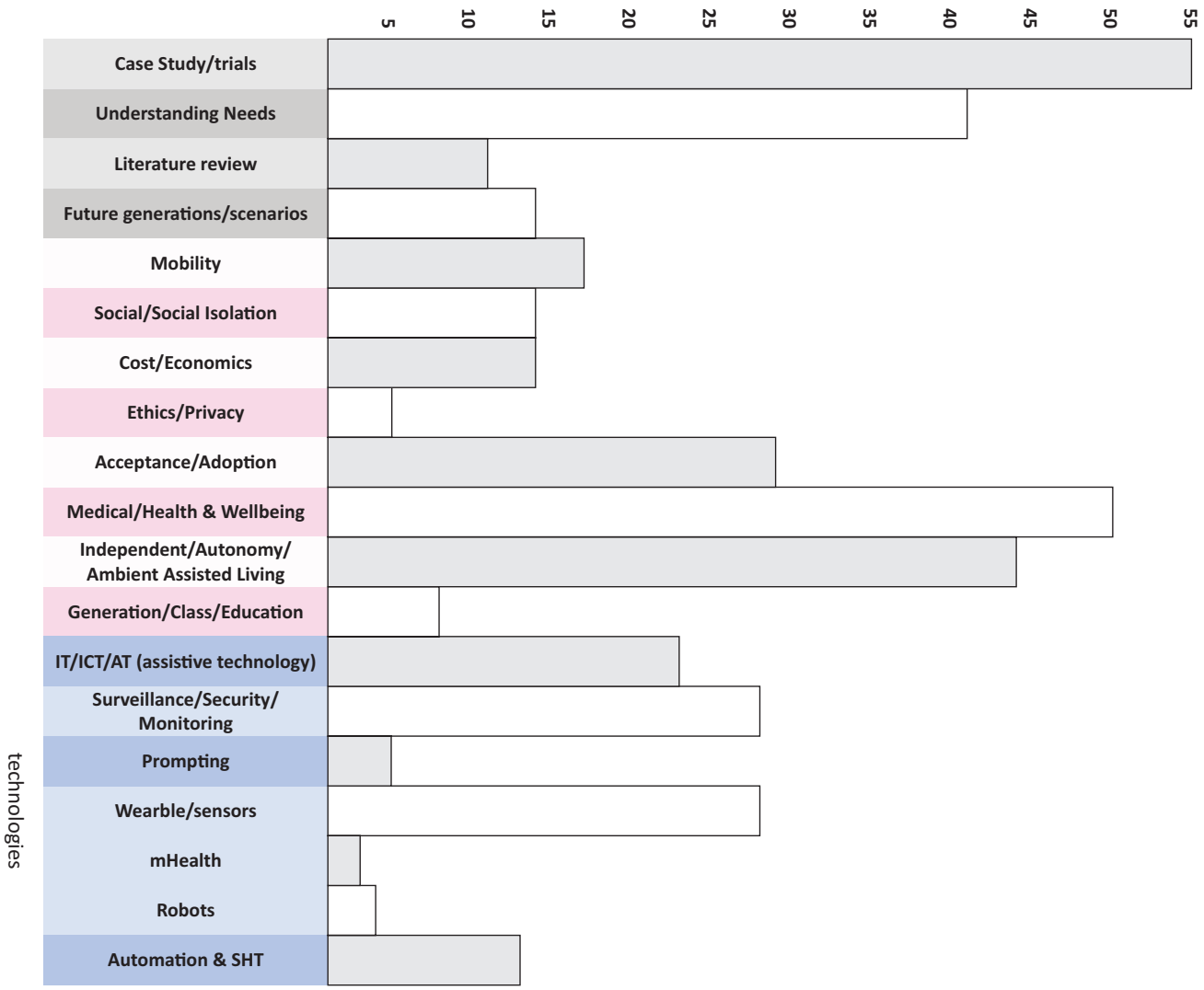


Figure 3. Summary of literature review (round 2). Note: Seven technologies are highlighted in blue.

To ensure these findings were not limited by the research methodology itself, two further actions were taken. The first was to conduct a second search of the database using the additional terms of 'ageing and mobility', 'ageing and activity'; the second was to review the references cited in the full text articles identified in 'round 5' of the ScSt (Figure 2). Although under both actions additional papers were identified, these fell outside the five boundary conditions and therefore did not provide evidence to challenge the original findings.

Overall, the studies presented here revealed the uptake of technology is high and the target audience, current and near future ageing adults, are comfortable using a wide range of technologies to support their ADL regardless of personal circumstances. However, uptake was shown to be dependent on a level of 'enjoyment of use' and when shown to increase independence. In addition, training was also shown to encourage use, although level of uptake was also found to be dependent on demonstrating that the specific technology served a purpose and did not to replace existing physical relationships (Le Deist & Latouille, 2016; Rogers & Mitzner, 2017; Tsekleves et al., 2017).

These results are supported by the 2018 Office of National Statistic findings on *Internet Access: Households and Individuals*, that reports on how, where, i.e., at home or 'on the go', and by whom the internet is accessed (Figure 4); another important resource is the Nielsen (2015) report which shows which devices are used by which generation for video viewing, both in and outside of the home. Whilst both report on specific use rather than the uptake of technology per se, they give insights into the perceived opportunities technology offers towards both independence and levels of enjoyment to an ageing society as a whole.

The ONS (2018) findings demonstrate that whilst age may have once been a barrier to the uptake of technology, it can no longer be viewed as such. The report identified that whilst only 59% of households with one adult aged 65 years had internet access, this same age group were experiencing the highest growth rate (23% over 2012). The report also identified that although this

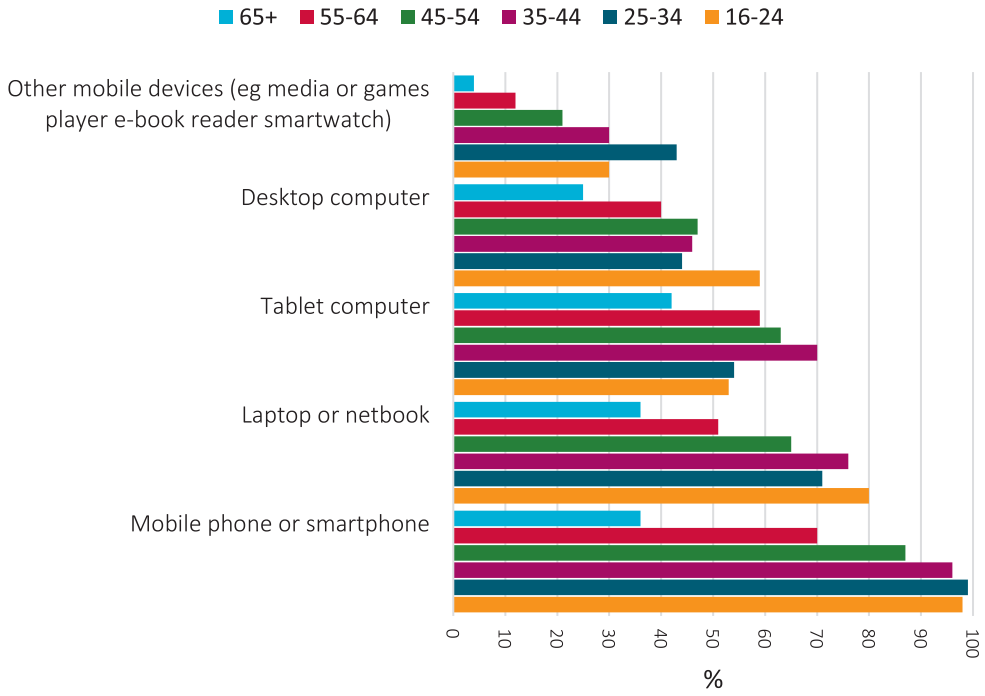


Figure 4. Devices used to access the internet by age group in Great Britain. Source: ONS (2018).

age group accessed the internet via a tablet rather than a smart phone (the most widely used internet device across all age groups), 28% of them accessed the internet 'on the go' using a smart phone. Other statistics in this study showed that online shopping for this cohort rose from 16% to 48% between 2008 and 2018, and that the household goods (25%), clothes or sports goods (24%) and holiday accommodation (24%) were significant purchases.

The results of the ONS study demonstrate the changing background experience of the emerging 65+ age group have been more exposed to technologies than previous generations (i.e., those who were 65 or older 10 years ago), and therefore demonstrates that technologies are more integrated into day to day activities. This is reflected in a study by Young and Tinker (2017) which points to the UK's baby boomer generations having somewhat "different needs and preferences than the generations they follow"; in other words, the needs of this generation as it ages is different to those of the current old, demonstrating that as each generation ages its level of exposure influences uptake for the various activity criteria. In addition, these results suggest both current and future generations of older adults are willing to not only adopt traditional adaptive technology but smart assistive technology including robotics, monitoring, alarms and sensors. Together these studies support the grey literature that points to this demographic already having a high uptake of smartphone and smartphone APPs to monitor and record various health and wellbeing activities. On the other hand, in terms of health and wellbeing, Meng Ni et al. (2017) suggest the health of near future older adults will be similar to current levels due to the "current culture of managing over prevention" and highlights a move towards increasing "collaborative care" and a move away from a traditional "physician-centred medical model" as a requirement of 'ageing in place'.

The ScSt pointed to four areas where day to day assistance may be required: 'self-maintenance', activities essential to maintaining independence; 'instrumental', tasks and activities that can be cognitively demanding; personal growth activities those that enhance life; and social activities including social connectivity and relationships (Rogers & Mitzner, 2017). In addition, the literature also pointed to three health profile types: robust (those living a non-sedentary, autonomous lifestyle without major health problems); fragile (those often living with chronic disease, or gradual decline in health and autonomy); and dependent (with serious diseases and generally in a care institution or hospital; Wick, 2017). Overall the review highlighted the 'fragile' group as the significant challenge. The ScSt also raised questions around the development of the appropriate technology suitable for its intended user group based on activity and heath profiles and asks what are the drivers for the development of this type of support technology, i.e., is this manufactured or a need driven industry (Le Deist & Latouille, 2016)? This was also addressed by Tsekleves et al. (2017) who, through a series of workshops, questioned if technological advances are addressing the real needs of the intended users. The workshops also identified that the UK's 'ageing in place' policy has left many older adults feeling "a burden on society".

The study revealed that whilst the four key activity criteria are often interconnected, there is an academic research bias towards medical and monitoring in the home, with little reported on the impact of technology and ageing in the wider environment and on social ac-

tivities. The ScSt also highlighted that whilst there is a high level of research around the uptake of technology for various home-based activities particularly monitoring and medical support, there was comparatively little that investigated the role of technology for mobile activities outside the home or for social activities, both identified as important activity criteria to support 'ageing in place'. This is at odds with the uptake of mobile devices and Voice over Internet Protocol (VoIP) for social activities suggested in the grey literature and reflected in the FGs. What was reported focused on infrastructure (transport and pavement) to encourage activities outside the home rather than smart technology, or how technology can be used to improve these experiences. Baldwin Hess, Travis Norton, Park and Street (2016) focused on mobility outside the home, and report on a survey of car use for a group of old, and oldest old car dependent adults in a metropolitan suburban location near Western New York State, USA. The authors argue mobility and access to services is essential to independence and ageing, and it is the "need to access services" which is influencing these "driving" decisions, pointing to driving as often the only realistic means of daily travel for both local and non-local journeys (Baldwin Hess et al., 2016). This research highlights planning mobility for an ageing population in the suburbs of particular importance. These results are also reflected in Rafael-Palou, Vargiu, Dauwalder and Miralles (2017), who highlight the shortage of data on demographic transport needs but argue that even this limited evidence demonstrates an under developed transport system and the lack of local and accessible community stores as barriers to 'ageing in place'.

The social demographic was picked up by Zandieh et al. (2016) that examined the "perceived built environment attributes (i.e., safety, pedestrian infrastructure and aesthetics) and their possible influences on older adults' outdoor walking levels". The study highlights that whilst there is a proven relationship between the quality of the built environment and older adults' walking levels, both psychological and physiological barriers exist to mobility outside the home, and that with ageing spatial inequality, a direct result of socioeconomic demographics, becomes increasingly important. The ScSt suggested that whilst the top and lower end of the seven recognised socioeconomic groups (BBC, 2013) of the current ageing population would be covered under either private or social care, the middle socioeconomic groups do not fall under the same mechanism and 'ageing in place' offers significant challenges (UK Government, 2017).

In addition, whilst much of the literature made clear that there were limited barriers and uptake was high as long as some background conditions were fulfilled i.e., appropriate training, overall the literature fell short in identifying how the current ageing population perceived technology to support their ADL, in both their home and the wider built environment.

As identified in the ScSt, all participants of the four FGs felt comfortable using technology as long as they had been given a level of instruction. Each focus group comprised between five and ten participants, 35 in total, with ten in each of the semi urban groups (Groups 1 and 2), five in the inner urban group (Group 3) and ten in the rural group (Group 4). Each group was selected as they belonged to one of our stakeholder groups and included a range of ages of current or future ageing adults (Table 2). In all instances, participants saw themselves continuing to live independently in their own home. Overall participants fell under the robust health profile; however, within the Type 2 diabetes group (Group 2) there was an expected decline from the robust health profile into either the fragile or the dependent group; in saying this, this was the group with the oldest participant (aged 80 to 84). Female numbers were highest in all groups. The average age was between 65 and 79, with most people living with at least one other person, except in the inner-city group where all lived alone. Whilst accommodation type varied, none of the participants lived in sheltered accommodation.

All groups had identified various places where training and/or instruction could be found; these ranged from "a friend knows about it…he's our guru, we go to him", to the library and the bank. Along with various jokes about the ability of young grandchildren being able to resolve issues. There was a lot of debate from all groups around the uptake of VoIP technologies, talking to friends and family. These tools were seen as very useful for communicating on a day to day basis—but again concerns were raised at the impact of technology on the family dynamic. Concerns of use were raised over cybercrime, replacing 'real' jobs and the breakdown of the family.

All groups recognised technology to play an important role in their day to day lives but raised concerns with regards to it replacing physical relationships with friends and family. On the other hand, it was acknowledged that when physical interaction was not possible, technology offers a useful link in continuing relationships. All groups recognised obvious benefits, for example its value for people with serious illness 'ageing in place', or those who experience social isolation, although it was argued that these benefits could be achieved through caring for each other in the community. All groups pointed to transport barriers to 'ageing in place', but these were shown to have different weighting depending on geographical location of the demographic, i.e., rural/urban, with the inner urban FG having the least concern as public transport links are well developed.

When asking the groups what they thought about technology, Group 1 (semi-urban) thought their "hand had been forced". Group 2 "trusted the technology but don't trust the system", whilst Group 3 described technology as "just a tool". Group 4 described it as "not just one thing". In addition, although the uptake of technology was high within the groups, with some using more than others, it was considered addictive, overtaking lives and jobs, and was not trusted. Group 1 demonstrated little trust in technology and reported that they are felt

that they were being led along the technology route with a decreasing number of alternatives. Although the group were aware of the advantages of monitoring, medical and prompting technology, they viewed technology to be developing too fast, and have little confidence in it. When groups were prompted with questions around technology and mobility, the responses included lists of various organisations (i.e., local groups) that actively support people with mobility issues and day-to-day activities and stressed that technology, however efficient, should and could not replace physical contact; they also found the idea of a robotic companion as a bit of a joke. The importance of physical contact was a recurring comment with all groups.

Whilst there were similarities between the first and second groups in terms of social and geographic demographics, Group 2, a Type 2 diabetes support group that faces a significant risk of a declining health compared to the physically-active bowls club (Group 1), had a much more positive outlook on technology than Group 1. The group recognised technology as anything that makes life easier. This group also had a high uptake of technology both in and outside the home, they were confident users who considered technology as very useful. The group was very well informed about internet fraud and had received training. They acknowledged a downside to technology but considered themselves in control; the group trusted technology, but "didn't trust the system". Whilst this group also raised concerns over technology replacing existing relationships, they considered technology to make things easier and to offer a sense of security and reported a sense of security with statements such as: "Someone's watching me, I am going to be OK" and "There's a button on my phone—if I am unconscious you can press the button and it will tell you all you need to know about any medical condition I may have". This reflected the general attitude of the group.

The inner-city community project urban group (Group 3), described technology as "frustrating". The majority of the group found smart technology intrusive i.e., it knows what you like and follows your habits, this concern was not echoed in the other groups. One member of the inner city group did not have a phone, smart or otherwise, and was "not keen" on technology for personal use, rather wanted a quieter life, on the other hand another member "just loves it". The group could see many advantages to ageing in their inner-city environment, they perceived ageing with or without technology in an inner-city environment easier than outside the city, for example transport and other shared resources. This group demonstrated a level of independence and had a different group dynamic to the other groups. For example, they explained that they didn't need technology to identify the location of places they could simply ask someone; overall the group expressed concern that technology can be a bit intrusive. However, they recognised that it was about striking a balance between technology and finding their own amusement. As with Group 2, they thought of themselves in control, however they considered this as a result of the level and quality of amenities within easy reach, they acknowledged that in their environment everything was a lot easier, with much more choice.

Group 4, the rural group, was different again; here uptake of technology was high and positive. Overall the group view was that technology made life easier. The group viewed social interaction whether physical or via technology as important; and the significance of strong social relationships with family and friends emerged early in the conversation, highlighting the importance of a social network in this rural environment. The group recognised that their limited access to amenities had resulted in a level of reliance on technology, which in turn brings with it a level of trust. However, the group did not feel that they had all the information they needed to make informed choices about technology. In terms of 'ageing in place' the group reported that they see technology to increase the possibility to age in place and offered a welcome alternative to moving to a more urban environment. They felt that without technology the rural environment is not conducive to 'ageing in place'. Technology was considered as "not a single thing". However, the group pointed out that whilst you need to have an interest in embracing technology, where attitude is a driver, technology is being forced on them, as limited amenities are closing. As a group they recognised that technology will dominate (if it doesn't already), and that this will happen at the expense of personal contact.

4. Conclusions

In light of the findings of both the ScSt and the FGs, it was evident that the uptake of technology to support 'ageing in place' is high, and that although barriers exist, they can be overcome. Our findings demonstrate that age is not a barrier to the uptake of technology, and that people adapt and use technology according to their wants. Whilst there is a generational difference in the use and uptake of technology it can be argued that this is not age related, but experience and value driven.

In addition, the ScSt highlighted several limitations in the type of research that is being conducted, i.e., it focused on medical and monitoring activity criteria to support ageing in the home, with little evidence to suggest that research into 'mobility' outside the home and social 'isolation', both requirements of 'ageing in place', are being undertaken for current or future generations of older adults. Conversely, the FGs demonstrated that the uptake of technology for these activities was high, particularly for those with limited physical opportunities.

Whilst the literature review did not uncover research related directly to social activity, the FGs demonstrated strong incentives to why the uptake was high even in the upper age ranges. However, this observation could be a limitation of the participants of the FGs that were already engaged with physical and social activities.

The academic literature for the most part reported on how technology was used to assess barriers to 'ageing in place' rather than the use of technology to aid 'ageing in place' per se, and tenuously pointed to demographics, both socioeconomic and geographical conditions, to influence both mobility and social opportunities. However, the FGs revealed that with ageing, geographical conditions become increasing significant and where necessary technology is recognised as providing opportunity to age in place. Overall the research findings suggested that for most, technology is recognised as a useful tool to support 'ageing in place' and therefore little in the way of incentive is needed. Whilst this uptake might be as a direct result of an increasing ratio of a technology savvy cohort moving through the population structure, it also points to enjoyment of use alongside and increased independence as significant up-take factors. These findings, although not fully resolved in the literature, highlight the need to better understand the use technology to achieve autonomy in the wider environment. The ScSt did not identify geographic demographic as an influence on the uptake of technology, which was a clearly identifiable parameter from the FGs. Therefore, future policies will have to consider the different circumstances and requirements of older adults living in a range of built environment scales when planning how to support older adults to age in place.

Finally, although the ScSt did not identify research concerned with the uptake of technology outside the home, it did identify evidence that age and most physical conditions are not barriers to the uptake of a wide range of technology in the home. Therefore, it follows that age and most physical conditions will not be a barrier to the uptake of a wide range of technologies outside the home.

The next step is to explore further the various geographical challenges faced by an ageing population, and consequently how each generation and social group perceives use or usefulness of technology in solving mobility and social connectivity to encourage 'ageing in place'.

Acknowledgments

This research was supported by the Positive Ageing Research Institute (PARI) and the School of Engineering & the Built Environment at Anglia Ruskin University.

Conflict of Interests

The authors declare no conflict of interests.

References

Age UK. (2016). Later life in the United Kingdom. *Age UK*. Retrieved from www.ageuk.org.uk

BBC. (2013). Huge survey reveals seven social classes in UK. *BBC News*. Retrieved from https://www.bbc.co.uk/news/uk-22007058

Baldwin Hess, D., Travis Norton, J., Park, J., & Street, D. A. (2016). Driving decisions of older adults receiving meal delivery: The influence of individual characteristics, the built environment, and neighbourhood familiarity. *Transportation Research Part A: Policy and Practice*, *88*, 73–85.

Davey, J., Nana, G., de Joux, V., & Arcus, M. (2004). *Accommodation options for older people in Aotearoa/New Zealand*. Wellington: Centre for Housing Research Aotearoa.

Fattah, S. M. M., Sung, N. M., Ahn, I., Ryu, M., & Yun, J. (2017). Building IoT services for aging in place using standard-based IoT platforms and heterogeneous IoT products. *Sensors*, *17*(10), 2311.

Grant, M., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, *26*(2), 91–108.

Le Deist, F., & Latouille, M. (2016). Acceptability conditions for telemonitoring gerontechnology in the elderly optimising the development and use of this new technology. *Innovation and Research in BioMedical Engineering*, *37*, 284–288.

Meng Ni, M., Brown, L., Lawler, D., Ellis, T., Deangelis, T., Latham, N., . . . Bean, J. (2017). The rehabilitation enhancing aging through connected health (REACH) study: Study protocol for a quasi-experimental clinical trial. *BMC Geriatrics*, *17*, 221.

Nielsen. (2015). Screen wars: The battle for eye space in a TV-everywhere world. *Nielsen*. Retrieved from www.nielsen.com/uk/en/insights/news/2015/age-of-technology-generational-video-viewing-preferences-vary-by-device-and-activity.html

O'Brien, K., Colquhoun, H., Levac, D., Baxter, L., Tricco, A., Straus, S., . . . O'Malley, L. (2016). Advancing scoping study methodology: A web-based survey and consultation of perceptions on terminology, definition and methodological steps. *BMC Health Services Research*, *16*, 305.

ONS. (2018). Internet access: Households and individuals Great Britain. *Office for National Statistics*. Retrieved from www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2018 Office for National Statistics

Peek, S. T. M., Luijkx, K. G., Rijnaard, M. D., Nieboer, M. E., van der Voort, C. S., Aarts, S., . . . Wouters, E. J. M. (2016). Older adults' reasons for using technology while aging in place. *Gerontology*, *62*, 226–237.

Rafael-Palou, X., Vargiu, E., Dauwalder, S., & Miralles, F. (2017). Monitoring and supporting people that need assistance: The BackHome experience. In C. Lai, A. Giuliani, & G. Semeraro (Eds.), *Information filtering and retrieval. Studies in computational intelligence* (pp. 79–96). Berlin: Springer.

Rogers, W. A., & Mitzner, T. L. (2017). Envisioning the future for older adults: Autonomy, health, well-being,

and social connectedness with technology support. *Futures*, *87*, 133–139.

Tinker, A., Wright, F., McCreadie, C., Askham, J., Hancock, R., & Holmans, A. (1999). *Alternative models of care for older people: Report for the Royal Commission on long term care*. London: TSO.

Tsekleves, E., Darby, A., Whicher, A., & Swiatek, P. (2017). Co-designing design fictions: A new approach for debating and priming future healthcare technologies and services. *Archives of Design Research*, *30*(2), 5–21.

UK Government. (2017). Future of an ageing population. *UK Government*. Retrieved from www.gov.uk/government/collections/future-of-ageing

United Nations. (2017). *Changing population age structures and sustainable development: Achievements, challenges, opportunities*. Retrieved from www.un.org/development/desa/en/news/population/world-population-prospects-2017.html

Wick, J. (2017). Aging in place: Our house Is a very, very, very fine house. *The Consultant Pharmacist*, *32*(10), 566–574.

Wiles, J., Leibing, A., Guberman, M., Reeve, J., & Allen, R. (2012). The meaning of "aging in place" to older people. *The Gerontologist*, *52*(3), 357–366.

World Health Organization. (2007). *Global age-friendly cities: A guide*. Geneva: World Health Organization Press.

Young, A., & Tinker, A. (2017). The 1960s baby boomers: Future needs and preferences. *Working with Older People*, *21*(4), 215–223.

Zandieh, R., Martinez, J., Flacke, J., Jones, P., & van Maarseveen, M. (2016). Older adults' outdoor walking: Inequalities in neighbourhood safety, pedestrian infrastructure and aesthetics. *International Journal of Environmental Research and Public Health*, *13*(12), 1179.

About the Authors

Julie Futcher is a Chartered Architect with significant experience in professional practice. Since completing her PhD, she has worked as an independent researcher on climate responsive urbanism to promote comfortable healthy environments that encourage more sustainable urban practice and has developed a novel approach to link urban design with the experiences of pedestrians and urban dwellers which includes an 'urban climate' walking tour.

Federica Pascale is Senior Lecturer in Architectural Technology at Anglia Ruskin University and has over nine years international research experience in community and healthcare resilience. She is one of the technical authors of the *Health Building Note 08-02*. In 2017 she was awarded the Emerald Literati Network Awards for Excellence for an Outstanding Paper and Highly Commended in 2015 and 2016.

Alison Pooley is a Principal Lecturer at Anglia Ruskin University. Her current research focuses on forms of housing that address the future needs of society, in particular addressing our ageing populations. Building on 25 years' experience in housing, architectural practice and academic research her preoccupations remains focused on building resilience within community.

Sally-Anne Francis has 20 years' experience of active involvement in health research. Her interests focus on the development of relevant support and services to meet the needs of people with long term conditions, in the context of their everyday lives. She has expertise in the application of a wide range of research methodologies, with a particular focus on qualitative methods involving patients, carers and healthcare professionals.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 83–95
DOI: 10.17645/up.v4i2.1943

Article

Assessing Liveable Cities for Older People in an Urban District in Turkey Using the Analytical Hierarchy Process

Ercüment Aksoy [1] and Nilufer Korkmaz-Yaylagul [2,*]

[1] Department of Geographical Information System, Akdeniz University, 07070 Antalya, Turkey;
E-Mail: ercumentaksoy@akdeniz.edu.tr
[2] Department of Gerontology, Akdeniz University, 07070 Antalya, Turkey; E-Mail: niluferyaylagul@akdeniz.edu.tr

* Corresponding author

Submitted: 21 December 2018 | Accepted: 5 March 2019 | Published: 18 June 2019

Abstract
The key concepts availability and accessibility have been taken into consideration in urban studies as well as the health and social aspects of ageing. These terms are in close relation with the "active ageing", "age-friendly city" and "liveable city" concepts. These concepts were created by the UN, the World Health Organization, and other institutions aiming to increase the quality of life of older individuals and to regulate their living environments in an optimal way for an active and independent life. Improving accessibility and availability of facilities for older people in urban areas is crucial to ensure that older people are able to meet their own needs as well as prevent their exclusion from society. The planning of cities that prevents the social exclusion of older people and provides an independent way of living is the main objective of the concept of liveable cities. From this point of view, this study aims to evaluate the existing opportunities in an urban area in the context of liveability. Out of the multi-criteria decision-making models, analytic hierarchy process (AHP) and geographic information systems (GIS) were therefore used in this research. Three main districts of Kepez, with the highest population of older individuals, have been chosen. According to the findings of the study, the weight of health services has the highest score compared to other criteria. The liveability scores and grading of the districts were obtained using the AHP matrix. In the study, it was concluded that a multi-criteria analysis could be carried out with quantitative data. The real land use and the close environment of the research area should also be considered in the evaluation process.

Keywords
accessibility; analytic hierarchy process; liveable city; old age; social exclusion

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

Cities are places with not only physical, but also social and cultural dimensions in terms of living areas and production. Contemporarily, two worldwide developments in the population affect urban planning. First, more than half of the world's population lives in cities and this rate is increasing. Today, 55% of the world's population lives in urban areas and this rate is expected to increase to 68% by 2050 (UN, 2018). Secondly, the proportion of older people aged 65 and over living in urban areas is increasing parallel to the increase in the older population. In 2015, 58% of individuals over 65 years of age were living in urban areas, and the population of people aged 65 and over living in urban areas across the world increased by 68% between 2000 and 2015. However, this rate has only increased by 25% in rural areas over 15 years (UN, 2015).

According to the UN-Habitat (2010) report, older people living in cities are among the most excluded groups

and are at greater risk regarding social isolation. Social isolation has been studied in two dimensions: objective measured social isolation, and emotional isolation. Gardner, Brooke, Ozanne and Kendig (1999) defined people with negative outcomes of poor or limited social contact as socially isolated (cited in Findlay, 2003). Studies indicate that older individuals experience disadvantages with regards to accessing services in urban areas (Findlay, 2003; Ogg, 2005). Disadvantages affecting older individuals are found mainly in accessing health care services and in their social interaction (Luo & Wang, 2003; Mollenkopf et al., 2004; Wahl, Iwarsson, & Oswald, 2012). The concept of accessibility is defined by Nicholls (2001) as the convenience with which a place or service can be reached or obtained. Therefore, it can be said that accessibility in urban areas is the access to physical and social resources that are effective in providing quality of life and well-being to individuals living in cities. Equal access to basic health care, long-term health care, and social services is essential for active ageing (Beard & Petitot, 2010; Kalache, 2016; Luo & Wang, 2003; Warner, Xu, & Morken, 2017).

Active Aging: A Policy Framework Report by the World Health Organization (WHO) has defined active ageing as not only staying physically active but also ensuring to continue the participation of older individuals in social, cultural, economic, and civic areas (WHO, 2002). The main objective of the active ageing concept is to ensure that the individual is ageing independently and autonomously. Active ageing is based on three criteria set by the WHO (2002): health, participation, and security. In this context, active ageing is defined as the optimisation of health, participation, and security opportunities to improve the quality of life of individuals. This global trend has affected the direction of approaches to urban planning. Efforts towards a supportive urban planning model should take the ageing population into consideration. The implementation should start with the planning of living environments. Living environments provide support in order to meet the daily activities at the optimum level. It also indirectly shapes psycho-social factors that affect the quality of life and well-being (Paul & Sen, 2018; Ruth & Franklin, 2014). The goal is to apply the global trends of population ageing and urbanisation into a model of urban planning to ensure older people remain active and engaged in society with appropriate spatial facilities (Bookman, 2008).

The WHO developed a programme in 2006 named "Age-Friendly Cities and Communities" to arrange the living environment of older people and encourage active ageing (WHO, 2007). Transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community and health services, and outdoor spaces and buildings have been constituted as the main domains for age-friendly cities. Features of a city's physical environment may have an influence on personal mobility, safety, security, health behaviour, and social participation (Beard & Montawi, 2015; Buffel, Phillipson, & Scharf, 2012; Moulaert & Garon, 2015; Steels, 2015). The WHO Global Network of Age-Friendly Cities has defined four stages to use as guidance for the evaluation of age-friendly cities: planning, implementation, progress evaluation, and continual improvement. The evaluation of age-friendly cities is a complex and time-consuming process. The planning and implementation stages require a 3-year city-wide plan of action based on assessment findings. Varied models of age-friendly cities are identified in the literature. While some models focus on physical environment and design (Atlanta Regional Commission, 2009), others (e.g., the UK model of Lifetime Neighbourhoods) mainly focus on social aspects of the environment (from the Department for Communities and Local Government, cited in Shank & Cutchin, 2016). One of the age-friendly cities' initiatives—the liveable cities concept, which is not independent of the age-friendly city concepts principles—has been widely used in the literature (Biggs & Carr, 2015; Fidler, Olson, & Bezold, 2011; Shank & Cutchin, 2016; Steels, 2015). The concept of liveable cities is concerned with land use, urban and suburban features, and efficient use of existing infrastructure. Liveability is conceptualised as the determination or development of the presence, absence, or relative weight of some variables in a physical or social context. According to the AARP (2005, cited in Hwang & Ziebarth, 2015; formerly American Association of Retired Persons), a liveable community is defined as an age-friendly community fostering healthy living and active ageing. Planning a liveable community consists of transportation efficiency, local assets, affordable housing, and walkable neighbourhoods (cited in Hwang & Ziebarth, 2015). There are many pieces of research in the literature regarding whether the existing infrastructure and services meet the needs of individuals and whether individuals can access these opportunities (Jensen & Maslesa, 2015; Luo & Wang, 2003; Nicholls, 2001; Warner et al., 2017). However, very little attention is paid to whether these characteristics exist in the living environment of older individuals or whether they are adequate (Shank & Cutchin, 2016; Wey & Huang, 2018).

Priorities of existing infrastructure and services may vary according to the living environment and might change according to individual needs (Ruth & Franklin, 2014; Shank & Cutchin, 2016). In his literature review, Steels (2015) found varieties in the implementation of the concepts of age-friendly cities and has asserted that the local socio-economic and cultural features need to be considered when determining types of age-friendly initiatives. Priorities might change according to socio-economic and cultural features. Groups with a low education profile were found to attend leisure activities less and religious practices more frequently than groups with a higher education profile (Steels, 2015). Thus, the purpose of this article is to evaluate the priorities of spatial facilities and their weight in order to create a liveable age-friendly environment from the local perspective.

2. Research Field

Antalya city is located in the south of Turkey and is not in the age-friendly cities network. Kepez, the central district with the largest population has been selected for the research field. According to the Turkish Statistical Institute's (TURKSTAT) population data of 2017, Kepez has a population of 519,966. The 65+ population is 41,640, being the highest in number of older individuals among the districts of Antalya city. The population of Kepez is socially and economically disadvantaged compared to other districts and there is no spatially administrative study about the development of urban facilities for older people in this region. Therefore, it has been selected as the research area. As a still developing region, it is hoped that Kepez will benefit from the research results from the aspect of urban planning. The location map of Kepez is shown in Figure 1.

3. Method

Creating a liveable environment for older individuals is a complex and multi-criteria decision-making process. Therefore, there is a need for an analysis tool where different criteria can be evaluated. The analysing process is difficult in scientific and applied research because of the diversification and the high number of criteria types. Out of multi-criteria decision-making methods, analytic hierarchy process (AHP) such as Topsis, Prometee, Electre, etc., have been increasingly used in several disciplines such as economics, health, education, and spatial planning.

AHP, based on mathematical theory, and one of the commonly used multi-criteria decision analysis (MCDA) methods, was developed by Saaty in 1980 and enables a comparison between indicators (Saaty, 1980). It is suitable for systematic and hierarchical evaluation that combines qualitative and quantitative methods. It examines, simplifies, and solves complex problems according to their interactions (Yu, Liu, Chang, Ma, & Yang, 2011; Zarghami, Sharghi, Olfat, & Kousalari, 2018). With this method, each decision maker has the authority to determine the weight of the criteria and the criteria according to his expertise, point of view, and degree of emphasis.

4. Criteria Selection and AHP Process

This research attempts to evaluate the grading and the availability of facilities offered to older people comparing multiple aspects. In this study, AHP analysis is used, and the neighbourhood-based evaluation of the criteria, which was determined in the research, was conducted using geographic information systems (GIS; see Figure 2).

A two-staged criteria selection has been carried out. In the first stage, a detailed literature search about age-friendly cities initiatives, their targets, criteria, and applications, was carried out. An expert group of 15 older individuals at the age of 65 and over living in Kepez region and five academicians with a background in urban planning and ageing has been created in the second stage. Accordingly, the expert group has been informed about the study and the research question was asked: what are the main facilities for an autonomous, independent, healthy, and active life for older people in a local neighbourhood?

The results and their frequencies have been recorded using the fishbone method (Yazdani & Tavakkoli-Moghaddam, 2012). Ten criteria were obtained according to the frequencies: oral and dental health centres,

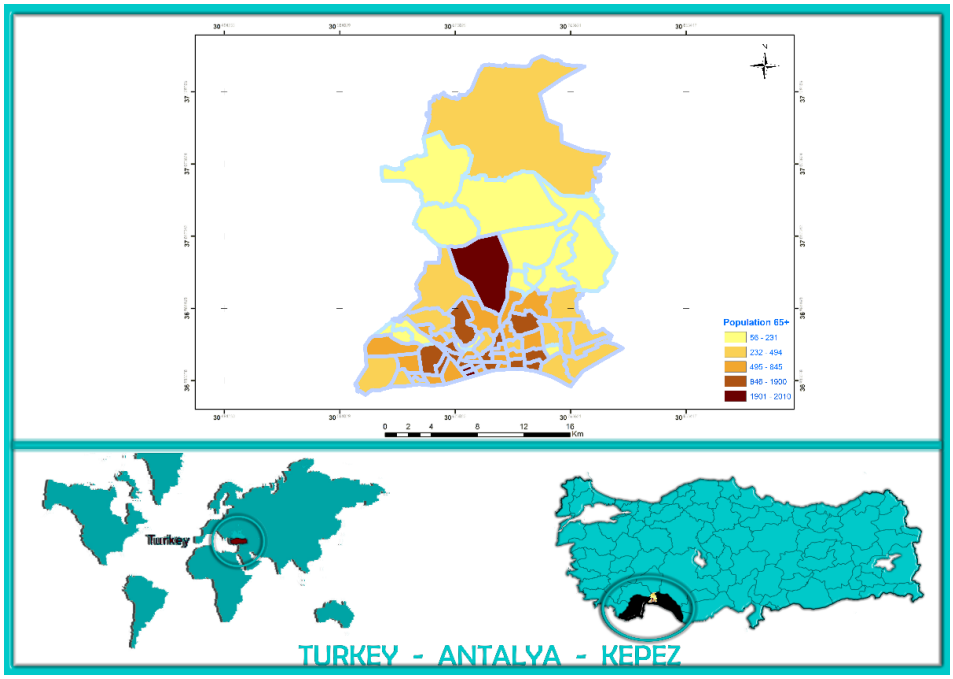


Figure 1. Kepez district and neighbourhood locations.

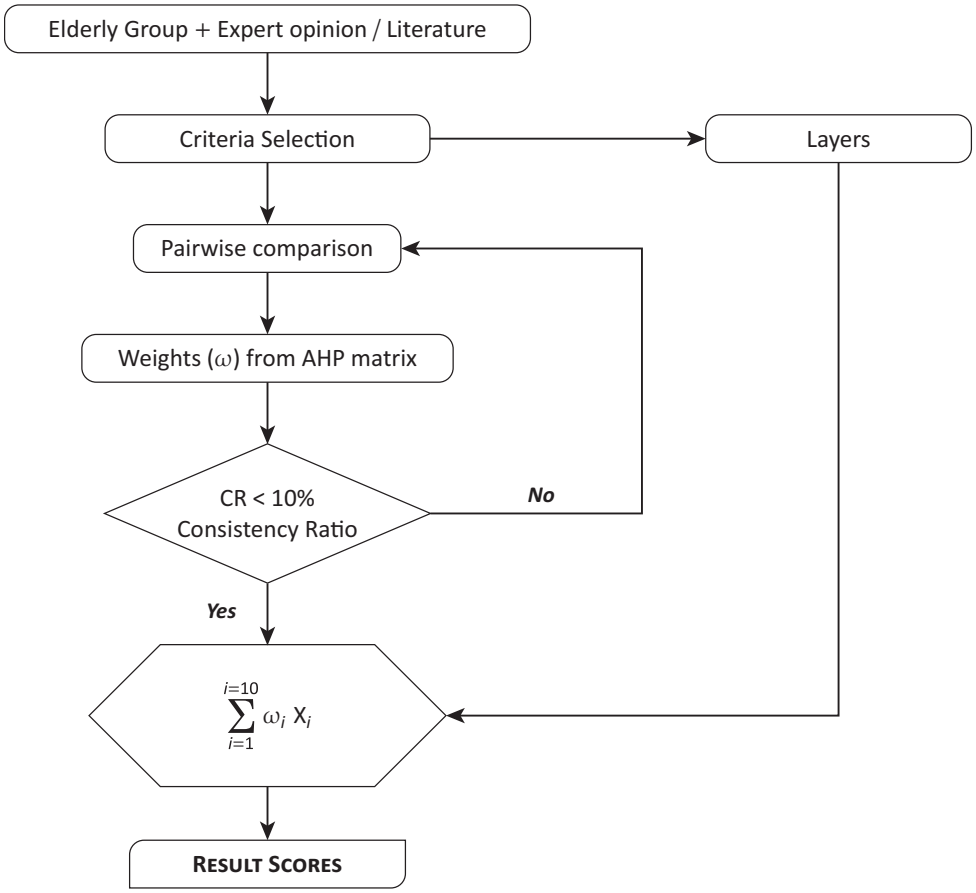


Figure 2. Flow chart of the proposed AHP approach. Notes: X_i = Layer Counts = Oral and dental health centres, ambulance centres, primary health care centres, pharmacies and transportation network, ATMs, parks, and stops; ω_i = Total Score of Criteria.

ambulance, pharmacies, hospitals, primary health care centres related to health care services and roads, bus and tram stops, automatic teller machines (ATMs), mosques, and parks. These criteria have been compared with the concept of age-friendly cities and were found to be coherent regarding the main domains of age-friendly cities (transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community and health services, and outdoor spaces and buildings). Accordingly, all proposed criteria have been included in the analysis.

The respondents were asked to weight the criteria between 1 and 9 according to the importance. The same degree score may be given to more than one criterion and there is no need for all scores to be in the rating charts (Table 1).

The mean weight of criteria has been calculated and the criteria were scored as below: ambulance 9, primary health care centres 8, bus and tram stops 7, pharmacies and hospitals 6, mosques 5, parks and dental health 4, ATMs 3, and roads 1. The highest score was given to ambulance service because of the vital importance of emergency health assistance in terms of advanced age. Primary health care services have been rated with 8 points considering that they are the most frequently used health centres for older people. Bus stops have been rated with 7 points in terms of mobility of the individuals living in the region. Pharmacies and hospitals giving long-term health care service have been rated with 6 points. Mosques are religious places that can be visited regularly. Mosques have been rated with 5 points. Parks have been rated with 4 points as places where older individuals can spend their leisure time. The transportation network has been rated with a score of 3 and the ATMs with a score of 1. The final criteria were calculated by placing these rating scores in the AHP analysis of the criteria matrix (Table 2) in order to find a general weight between the criteria with a paired comparison.

Table 1. Gradation scale for quantitative comparison of criteria.

Option	Numerical value(s)
Equal	**1**
Marginally strong	**3**
Strong	**5**
Very strong	**7**
Extremely strong	**9**
Intermediate values	**2,4,6,8**

Table 2. AHP analysis of the criteria.

		road	ATM	park	dental health	mosque	pharmacy	hospital	bus_tram	primary health care	ambulance	
		A	B	C	D	E	F	G	H	I	J	Weight (w)
road	A	1	0,333	0,25	0,25	0,333	0,333	0,2	0,143	0,111	0,111	**0,017756**
ATM	B	3	1	1	0,5	0,333	0,25	0,2	0,143	0,143	0,125	**0,027601**
park	C	4	2	1	0,5	0,25	0,2	0,2	0,167	0,143	0,125	**0,031832**
dental health	D	4	2	1	1	0,333	0,25	0,2	0,167	0,167	0,143	**0,035591**
mosque	E	5	3	2	2	1	0,333	0,333	0,2	0,2	0,167	**0,055247**
pharmacy	F	6	4	3	3	2	1	1	0,333	0,2	0,2	**0,086717**
hospital	G	6	4	3	3	2	1	1	1	0,5	0,333	**0,103985**
bus_tram stops	H	7	5	4	4	3	2	2	1	1	0,5	**0,152013**
primary health care	I	8	6	5	5	4	3	3	2	1	1	**0,212156**
ambulance	J	9	7	6	6	5	4	4	3	2	1	**0,277102**
Total	T	53	34,33	26,25	25,25	18,25	12,37	12,13	8,152	5,463	3,704	1,000000

Notes: The consistency of the scoring system of these criteria is calculated with the consistency index (CI) of the paired comparison matrix and the consistency ratio (CR). In the study, CI = 0.043 and CR = 0.029 were obtained. The matrix is found to be consistent (the calculated CR $< 0{,}1$ is accepted for consistency).

Table 3. AHP validity reliability test.

N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RI	0,00	0,00	0,58	0,90	1,12	1,24	1,32	1,41	1,45	1,49	1,51	1,48	1,56	1,57	1,59

Note: RI stands for random index.

$$CR = \frac{CI}{RI}$$

Each criteria layer is placed on both row and column and compared to each other. Accordingly, a scale between 1 and 9 has been given.

A liveability score has been calculated by multiplying the "weight coefficients" generated via AHP matrix, with the number of each criterion of the neighbourhood "liveability score" being considered as a proposed concept in this research. A higher liveability score result indicates a higher fulfilment of expectations from a liveable neighbourhood.

5. Data Collection

Quantitative data has been obtained from TURKSTAT, Antalya Municipality and from free web map services in the research. Age groups distribution data was entered to GIS in base maps of Kepez district and age densities maps of neighbourhoods were obtained.

The research field has been divided into neighbourhoods for a more detailed analysis. Three neighbourhoods, Varsak (number of individuals aged 65+ = 2010), Özgürlük (number of individuals aged 65+ = 1999), and Ulus (number of individuals aged 65+ = 1941) with the highest population of people aged 65 and older have been obtained from the density map (see Figure 3).

Ten criteria layers including roads, ATMs, parks, oral and dental health centres, mosques, pharmacies, hospitals, bus and tram stops, primary health care centres and ambulance centres have been generated in GIS software to create point types. QGIS, the most widely used open source program in the world, was used as software. The data was transformed into GIS maps as X, Y coordinates, which is called "convert text to maps". This process was followed by the AHP process. A score between 1 and 9, with the paired comparison of layers (criteria), and "weight coefficients of criteria", by means of "weight matrix" of this score, were gathered. The "liveability score" of each neighbourhood was calculated after finding the criterion weights by means of the sum of the multiplications of each neighbourhood's numerical values of criteria with weight coefficient. The ranking of the scores of these three neighbourhoods reveals the "liveability ranking" of the research field. The research model has been given in the flow chart in Figure 4.

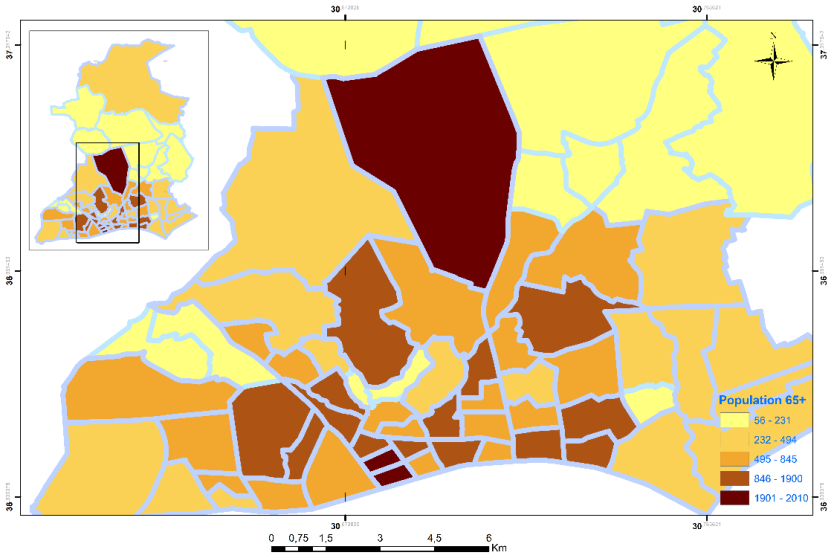


Figure 3. Age density map.

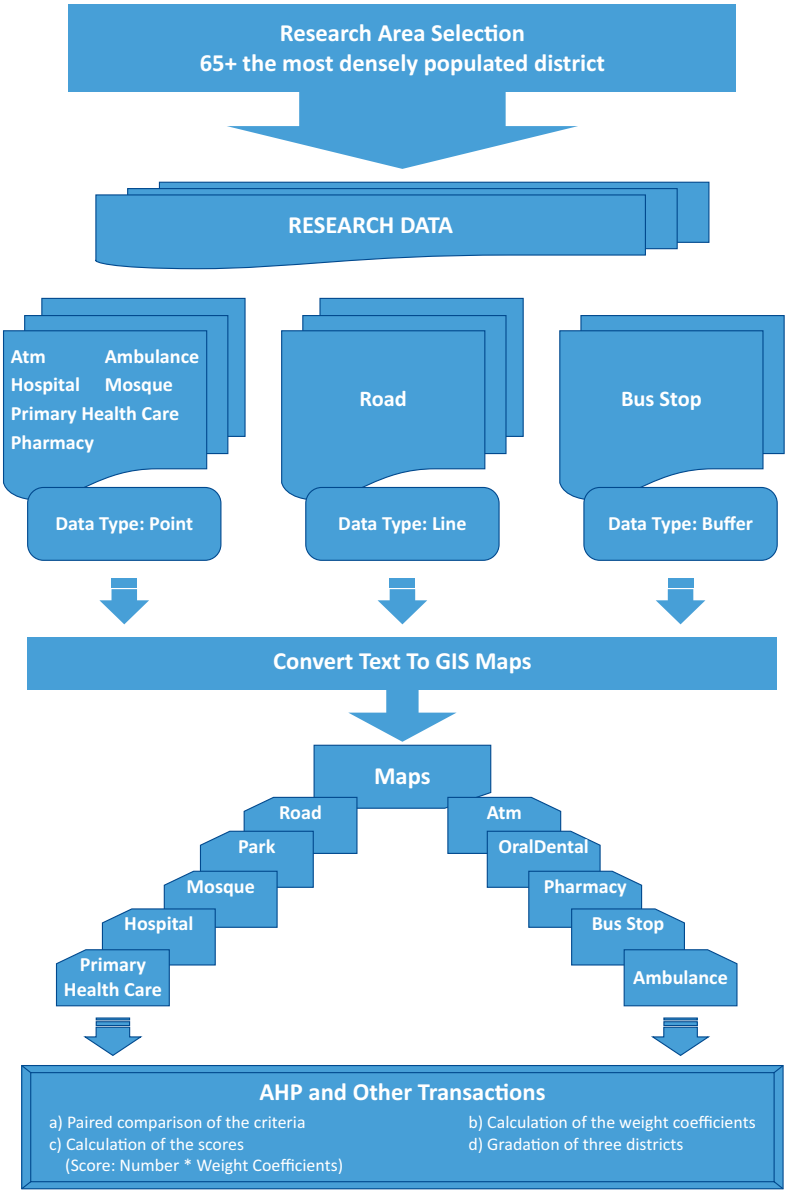


Figure 4. Method flow chart.

6. Findings

6.1. The Point Data of Neighbourhoods

Coordinate data of the criteria used in the research is converted into point data and placed in these maps using the GIS program. Transportation network data of the neighbourhoods are line-shaped and, in order to transform it into quantitative data, the density of road networks were graded such as: 3 points for high density, 2 points for medium density, and 1 point for low density according to the field size and population density. Maps of the neighbourhoods are seen in Figures 5, 6, and 7.

The findings of the three neighbourhoods were compared with each other according to the criteria. The findings of mapping by GIS from the three neighbourhoods are presented below:

- Access to health care services is revealed in Yung, Conejos, and Chan (2016) as one of the most important factors in terms of healthy ageing. There are neither ambulance centres nor hospitals in Ulus, Özgürlük, and Varsak neighbourhoods. This is a vital deficiency for these three neighbourhoods. Ulus neighbourhood has the highest number (nine) of oral and dental health centres and they are spatially relatively homogeneously distributed. However, there are three dental health centres in Özgürlük and one in Varsak. There are primary health care centres in Ulus and Özgürlük

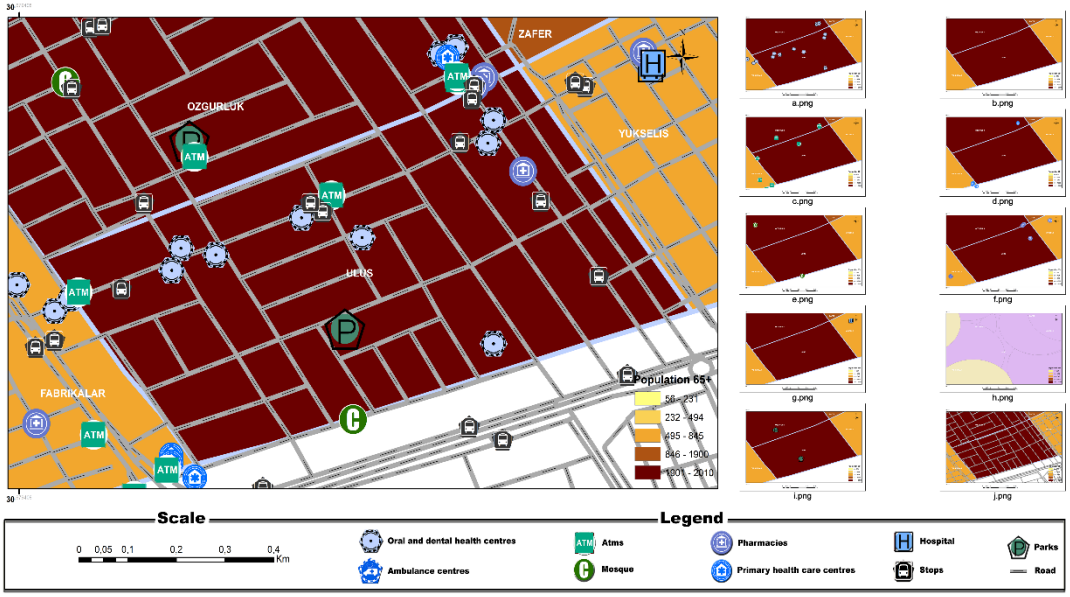


Figure 5. Location and density map of selected criteria in Ulus Neighbourhood.

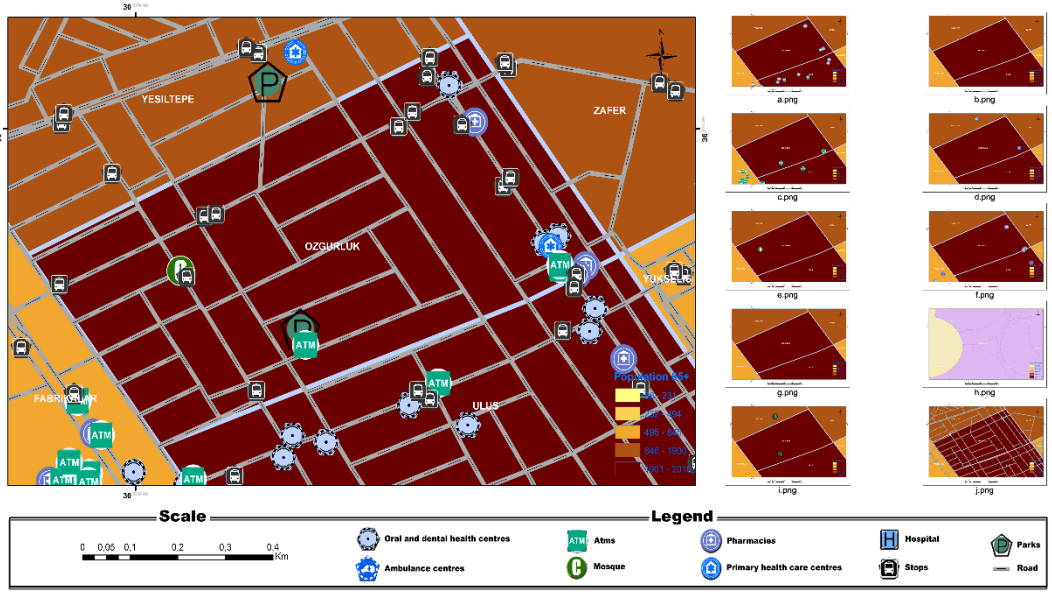


Figure 6. Location and density map of selected criteria in Özgürlük Neighbourhood.

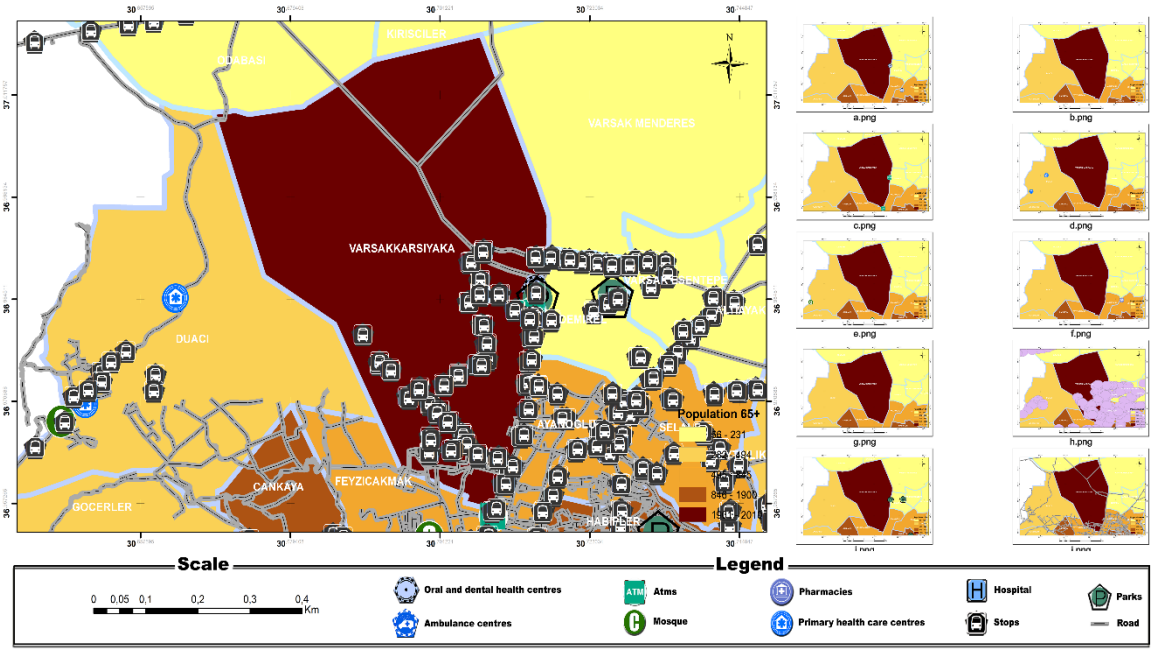


Figure 7. Location and density map of selected criteria in Varsak Neighbourhood.

neighbourhoods but none in Varsak neighbourhood even though it has the largest area. There is a pharmacy in Ulus and Özgürlük neighbourhood but none in Varsak neighbourhood.

- Public transport facilities are deemed important in the literature in terms of social participation of older people and access to other services (Cerin, Leslie, du Toit, Owen, & Frank, 2007; Hirshorn & Stewart, 2003; Schwanen & Páez, 2010; Szell, 2018). In order to determine the distributions of the bus stops regarding walkability, a buffer analysis was applied at a radius of 400 meters, which is accepted as the walkability distance for older individuals in the literature (Carlson, York, & Primomo, 2011; Cerin et al., 2007, 2013; Nagel, Carlson, Bosworth, & Micheael, 2008; Pikora et al., 2006). There is a limited number of bus and tram stops in Ulus and Özgürlük neighbourhoods, and it is determined that they are found to be spatially sufficient as the bus and tram stops buffer layer has covered 100% of the area in Ulus and Özgürlük neighbourhoods. Although the number of stops is the highest in Varsak neighbourhood, they have been found to be irregular according to the spatial distribution.
- The roads of Ulus and Özgürlük neighbourhoods were well distributed. The roads of Varsak neighbourhood were irregularly distributed.
- Research reveals that recreational areas are necessary for active ageing, and areas outside home provide social inclusion to older people (Turel, Yigit, & Altug, 2007; Yung, Conejos, & Chan, 2016). Parks have an important role in terms of physical activity and the prevention of social exclusion of older individuals in Turkey. All three neighbourhoods have parks.
- Mosques are places older individuals visit on daily basis for social interaction, as well as for religious purposes. A study carried out in Turkey revealed that mosques need to be considered in urban planning from the perspectives of social participation and active ageing (Öztürk & Kızıldoğan, 2017). There is only one mosque in Özgürlük, none in Varsak or Ulus. However, a close neighbourhood analysis showed that the maximum distance of mosques from the border of the selected neighbourhood is 900m. Older individuals are paid their pensions through ATMs and as they commonly prefer to withdraw money in parts, they use ATMs regularly. Use of ATM has been found to be important for older individuals' daily (Ergun & Akyıldız, 2017). There are sufficient ATMs in the three neighbourhoods.
- The area of two neighbourhoods (Özgürlük and Ulus) is small in size, has a high population density, and most of the facilities selected in this research are located in these neighbourhoods. Varsak is the neighbourhood with the largest geographical area, however, there are fewer facilities compared to other neighbourhoods. The population density of all three neighbourhoods is presented in the age density map.

No hospitals and ambulance centres have been found in any of the three neighbourhoods. Therefore, the analysis of a close neighbourhood has been made via the generated maps (see Figure 8). According to the analysis, the hospitals and ambulance centres are, at most, 7.2km away from the (Varsak, Ulus and Özgürlük) neighbourhoods, which does not indicate any difficulties regarding access to health services. Our research findings show

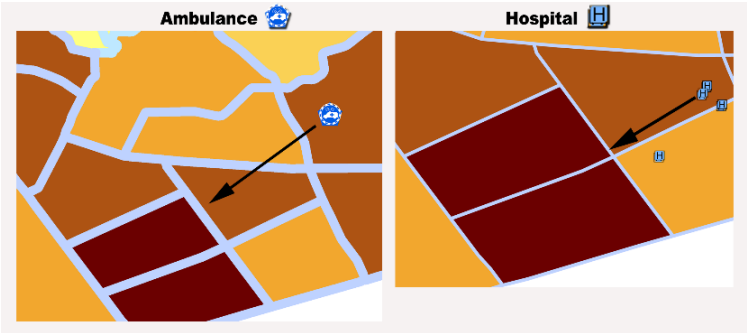


Figure 8. Map of the close neighbourhood.

that an analysis of a close neighbourhood should be performed by means of GIS to obtain more accurate data, as numerical-regional analyses might not be sufficient.

6.2. AHP Analysis Findings

Selected criteria (oral and dental health centres, ambulance centres, primary health care centres, pharmacies and transportation network, ATMs, parks, and stops in neighbourhoods) were evaluated in terms of accessibility and availability.

Weight points of each neighbourhood are shown in Table 4. Accordingly, the total weight score of Ulus neighbourhood is 2,24 which is the largest score, the total weight score of Özgürlük neighbourhood is 2,67 and the total weight score of Varsak neighbourhood is the highest which is found as 8,32. A higher total weight score indicates a more liveable neighbourhood.

Table 4. Liveability score table.

							Score = Coefficient * Number		
Alphabetical Order	**Symbol**	**Abbreviation**	**Coefficient**	**Ulus_ Number**	**Özgürlük_ Number**	**Varsak_ Number**	**Ulus_ Score**	**Özgürlük_ Score**	**Varsak_ Score**
1_Oral_Dental		a	*0,035591*	9	3	1	***0,32***	**0,11**	**0,04**
2_Ambulance		b	*0,277102*	—	—	—	***0***	**0**	**0**
3_ATM	ATM	c	*0,027601*	3	2	1	***0,08***	**0,055**	**0,028**
4_Primary Health Care Center		d	*0,212156*	1	1	—	***0,21***	**0,21**	**0**
5_Mosque		e	*0,055247*	—	1	—	***0***	**0,056**	**0**
6_Pharmacy		f	*0,086717*	2	2	—	***0,17***	**0,17**	**0**
7_Bus_AntRAY		h	*0,152013*	9	13	79	***1,37***	**1,98**	**12,01**
8_Hospital	H	g	*0,103985*	—	—	—	***0***	**0**	**0**
9_Park	P	i	*0,031832*	1	1	1	***0,032***	**0,032**	**0,032**
10_Roads		j	*0,017756*	3	3	1	***0,053***	**0,053**	**0,018**
Total							***2,24***	**2,67**	**8,32**

The criteria were re-evaluated taking the size of the neighbourhood into consideration. On the assumption that the size of the neighbourhood (see Table 5) can affect the numeric size of the selected criteria. The analysis table that includes the size of geographical areas of neighbourhoods can be seen in Table 6. Accordingly, a value (number) of each criterion has been calculated per square meter and multiplied by the weight score obtained from the AHP analysis. In this case, the "liveability score" of neighbourhoods are as follows: Ulus = $0{,}53 \times 10^{-6}$, Varsak = $4{,}7 \times 10^{-6}$, Özgürlük = $6{,}5 \times 10^{-6}$ (see Table 6).

The liveability ranking of the neighbourhoods has changed from Varsak, Özgürlük, Ulus to Özgürlük, Ulus, and Varsak, taking the size of the geographical area into consideration (see Table 7). Accordingly, adding some details about the space can lead to accurate results and may provide more detailed data.

7. Discussion

In this research, health, transportation, and social facilities that older people use are rated by expert group depending on the importance and frequency of use. The spatial facilities of three neighbourhoods in an urban area with the highest density of older individuals were evaluated in terms of the liveable areas for older individuals and the existing situation was graded by AHP

Table 5. 65+ population and area size of neighbourhoods.

Item no.	The neighbourhood	Number of 65+ people	Area (square meters)
1	Ulus	2010	424239 m^2
2	Özgürlük	1999	399241 m^2
3	Varsak	1941	18396258 m^2

Table 6. Liveability score table according to area size.

							Score = Coefficient * Number		
Alphabetical Order	**Symbol**	**Abbreviation**	**Coefficient**	**Ulus_ Number**	**Özgürlük_ Number**	**Varsak_ Number**	**Ulus_ Score**	**Özgürlük_ Score**	**Varsak_ Score**
1_Oral_Dental		a	*0.035591*	9/424239	3/399241	1/18396258	$0{,}8*10^{-6}$	$0{,}3*10^{-6}$	$0{,}1*10^{-6}$
2_Ambulance		b	*0.277102*	—	—	—	**0**	**0**	**0**
3_ATM		c	*0.027601*	3/424239	2/399241	1/18396258	$0{,}2*10^{-6}$	$0{,}1*10^{-6}$	$0{,}1*10^{-6}$
4_Primary Health Care Center		d	*0.212156*	1/424239	1/399241	—	$0{,}5*10^{-6}$	$0{,}5*10^{-6}$	**0**
5_Mosque		e	*0.055247*	—	1/399241	—	**0**	$0{,}1*10^{-6}$	**0**
6_Pharmacy		f	*0.086717*	2/424239	2/399241	—	$0{,}8*10^{-6}$	$0{,}4*10^{-6}$	**0**
7_Bus_AntRAY		h	*0.152013*	9/424239	13/399241	79/18396258	$3{,}2*10^{-6}$	$4{,}9*10^{-6}$	$4{,}3*10^{-6}$
8_Hospital		g	*0.103985*	—	—	—	**0**	**0**	**0**
9_Park		i	*0.031832*	1/424239	1/399241	1/18396258	$0{,}1*10^{-6}$	$0{,}1*10^{-6}$	$0{,}1*10^{-6}$
10_Roads		j	*0.017756*	3/424239	3/399241	1/18396258	$0{,}1*10^{-6}$	$0{,}1*10^{-6}$	$0{,}1*10^{-6}$
Total							$0{,}53*10^{-6}$	$6{,}5*10^{-6}$	$4{,}7*10^{-6}$

Table 7. Results of AHP analysis based on 65+ ratio and area size.

Item no.	The Neighbourhood	Number of 65+ people	Area(squaremeters^2)	Method 1 (number-weight rating)	Method 2 (square meters-number-weight rating)
1	Ulus	2010	424,239	***2.24***	***0,53*10^{-6}***
2	Özgürlük	1999	399,241	***2.66***	***6,5*10^{-6}***
3	Varsak	1941	18,396,258	***8.32***	***4,7*10^{-6}***

analysing tools. According to the findings, the most important deficiency for health care services in the selected neighbourhoods is that there are no ambulance centres or hospitals in the neighbourhoods, which could reveal a health access issue. Close neighbourhood analysis was performed for all neighbourhoods, with maps generated by GIS and it was found that there are hospital and ambulance facilities in the regions nearby, though this is not considered as a risk factor as ambulance services exist in a close neighbourhood, maximum 7.2km away. In this type of research, it is not sufficient to evaluate the quantitative data, space utilization and close neighbourhood analyses of the research area should also be carried out. Bus and tram stops were found to be adequate in all three regions, supported by buffer analysis. In the research, Varsak neighbourhood was found to have the lowest score in terms of health care services and transportation facilities compared to other neighbourhoods. Considering the area utilisation characteristics of the Varsak region, most of the neighbourhood had agricultural characteristics.

The global trend of population ageing requires the consideration of urban planning suitable for older individuals. The older population is not homogenous, therefore, a universal "age-friendly" or "liveable city" model is not easy to implement. The planning decisions of implementations for older individuals is multidimensional and has to take the diversity of older individuals into consideration (Buffel et al., 2012; Glicksman, Clark, Kleban, Ring, & Hoffman, 2014; Hwang, Glass, Gutzmann, & Shin, 2008; Shank & Cutchin, 2016).

Criteria of age-friendly cities are not considering individual priorities and sociocultural differences. We have aimed to reveal the local needs of older individuals by adding them to expert groups and letting them decide the criteria. We have used multiple decision-making analyses to select and to weight the facilities for local older people. Health-related facilities were scored as a high priority whereas facilities deemed important for western cultures such as community centres and libraries were not found to be important. Also, mosques were considered as important by older individuals. Public transportation was mentioned prior to private transportation. It can be concluded that spatial priorities differed in our research according to socio-economic and cultural features.

The findings from this research can contribute to the literature on the implementation of age-friendly, liveable city concept using AHP analysis process and evaluating this process from the local perspective. However, applications may change according to different socio-cultural and economic features of local communities. The priorities of spatial facilities for older individuals living in local communities should be considered in urban planning.

Some facilities commonly used for age-friendly cities (housing, vehicles, community centres, libraries, etc.) were not considered in this research, as the criteria were selected by the expert group. Another limitation is that only the existence and the numbers of spatial facilities/criteria were evaluated. A qualitative and detailed analysis could contribute to the evaluation of liveable neighbourhoods.

8. Conclusion

The International City/County Management Association (ICMA, 2003) has revealed the strategies required for active ageing and age-friendly liveable communities for older individuals in their report *Active Living for Older Adults: Management Strategies for Healthy and Livable Communities*. The concept of liveable communities includes basic components such as transportation facilities, health care services and consumption, recreation and social facilities. The liveable community concept does not only affect the health and lifestyles of older adults but also contributes to the urban planning decisions of local governments. Therefore, the first step towards the planning of liveable cities is to determine the distribution of existing services and facilities for older people in cities (ICMA, 2003). In *Livable Communities: An Evaluation Guide*, Kihl, Brennan, Gabhawala, List and Mittal (2005) describe the physical conditions in urban areas such as transportation networks, public transport facilities, consumption facilities, health care centres, recreation facilities, and areas for social networking as important components for an independent life in old age without social exclusion. This article has evaluated health care services, transportation facilities, social and recreational facilities of the cities and neighbourhoods in terms of liveable environments for older people from a local perspective. This study attempts to evaluate the liveability of neighbourhoods by using multi-criteria. A general formulation is proposed where the varied criteria and scoring according to the selected region and needs provides researchers with flexibility.

Conflict of Interests

The authors declare no conflict of interests.

References

Atlanta Regional Commission. (2009). *Lifelong communities: A regional guide to growth and longevity*. Atlanta, GA: Atlanta Regional Commission.

Beard, J. R., & Montawi, B. (2015). Age and the environment: The global movement towards age-friendly cities and communities. *Journal of Social Work Practice*, *29*(1), 5–11. http://dx.doi.org/10.1080/02650533.2014.993944

Beard, J. R., & Petitot, C. (2010). Ageing and urbanization: Can cities be designed to foster active ageing? *Public Health Reviews*, *32*(2), 427–450.

Biggs, S., & Carr, A., (2015). Age and child-friendly cities and the promise of intergenerational space. *Journal of Social Work Practice*, *29*(1), 99–112. http://dx.doi.org/10.1080/02650533.2014.993942

Bookman, A. (2008). Innovative models of ageing in place: Transforming our communities for an ageing population. *Community, Work & Family*, *11*(4), 419–438.

Buffel, T., Phillipson, C., & Scharf, T. (2012). Ageing in urban environments: Developing 'age-friendly' cities. *Critical Social Policy*, *32*(4), 597–617.

Carlson, T., York, S., & Primomo, J. (2011). The utilization of geographic information systems to create a site selection strategy to disseminate an older adult fall prevention program. *The Social Science Journal*, *48*(1), 159–174.

Cerin, E., Leslie, E., du Toit, L., Owen, N., & Frank, L. D. (2007). Destinations that matter: Associations with walking for transport. *Health & Place*, *13*(3), 713–724.

Cerin, E., Lee, K. Y., Barnett, A., Sit, C. H., Cheung, M. C., Chan, W. M., & Johnston, J. M. (2013). Walking for transportation in Hong Kong Chinese urban elders: A cross-sectional study on what destinations matter and when. *International Journal of Behavioral Nutrition and Physical Activity*, *10*(1), 78.

Ergun, A. D., & Akyıldız, D. (2017). Yaşlıların Gündelik Yaşam Pratikleri Ve Sosyal Algılar: Menemen Örneği [Everyday life practices and social perceptions of the elderly: Example of Menemen]. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *9*(22), 500–509.

Fidler, D., Olson, R., & Bezold, C. (2011). Evaluating a long-term livable communities strategy in the U.S. *Futures*, *43*, 690–696. https://doi.org/10.1016/j.futures.2011.05.010

Findlay, R. A. (2003). Interventions to reduce social isolation amongst older people: Where is the evidence? *Ageing & Society*, *23*(5), 647–658.

Gardner, I., Brooke, E., Ozanne, E., & Kendig, H. (1999). *Improving social networks, a research report: Improving health and social isolation in the Australian veteran community*. Melbourne: Lincoln Gerontology Centre, La Trobe University.

Glicksman, A., Clark, K., Kleban, M. H., Ring, L., & Hoffman, C. (2014). Building an integrated research/policy planning age-friendly agenda. *Journal of Aging & Social Policy*, *26*(1/2), 131–146.

Hirshorn, B. A., & Stewart, J. E. (2003). Geographic information systems in community-based gerontological research and practice. *Journal of Applied Gerontology*, *22*(1), 134–151.

Hwang, E., Glass, A. P., Gutzmann, J., & Shin, K. J. (2008). The meaning of a livable community for older adults in the United States and Korea. *Journal of Housing for the Elderly*, *22*(3), 216–239.

Hwang, E., & Ziebarth, A. (2015). Walkability features for seniors in two livable communities: A case study. *Housing and Society*, *42*(3), 207–221.

International City/County Management Association. (2003). *Active living for older adults: Management strategies for healthy and livable communities*. Washington, DC: ICMA.

Jensen, P. A., & Maslesa, E. (2015). Value based building renovation: A tool for decision-making and evaluation. *Building and Environment*, *92*, 1–9.

Kalache, A. (2016). Active ageing and age-friendly cities: A personal account. In T. Moulaert & S. Garon (Eds.), *Age-friendly cities and communities in international comparison* (pp. 65–77). New York, NY: Springer.

Kihl, M., Brennan, D., Gabhawala, N., List, J., & Mittal, P. (2005). *Livable communities: An evaluation guide*. Washington, DC: AARP Public Policy Institute.

Luo, W., & Wang, F. (2003). Measures of spatial accessibility to health care in a GIS environment: Synthesis and a case study in the Chicago region. *Environment and Planning B: Planning and Design*, *30*(6), 865–884.

Mollenkopf, H., Marcellini, F., Ruoppila, I., Széman, Z., Tacken, M., & Wahl, H. W. (2004). Social and behavioural science perspectives on out-of-home mobility in later life: Findings from the European project MOBILATE. *European Journal of Ageing*, *1*(1), 45–53.

Moulaert, T., & Garon, S. (Eds.). (2015). *Age-friendly cities and communities in international comparison: Political lessons, scientific avenues, and democratic issues*. New York, NY: Springer.

Nagel, C. L., Carlson, N. E., Bosworth, M., & Micheael, Y. (2008). The relation between the neighborhood built environment and walking activity among older adults. *American Journal of Epidemiology*, *168*(4), 461–468.

Nicholls, S. (2001). Measuring the accessibility and equity of public parks: A case study using GIS. *Managing Leisure*, *6*(4), 201–219.

Ogg, J. (2005). Social exclusion and insecurity among older Europeans: The influence of welfare regimes. *Ageing & Society*, *25*(1), 69–90.

Öztürk, A. Ç., & Kızıldoğan, E. T. (2017). Yaşli Bireylerin Kentsel/Kamusal Mekanlari Kullanim Analizi: *Eskişe-*

hir Örneği [The analysis of the use of elderly individuals of urban/public spaces: The case of Eskisehir]. *Yaşlı Sorunları Araştırma Dergisi*, *10*(1), 1–13.

Paul, A., & Sen, J. (2018). Livability assessment within a metropolis based on the impact of integrated urban geographic factors (IUGFs) on clustering urban centers of Kolkata. *Cities*, *74*, 142–150.

Pikora, T. J., Giles-Corti, B., Knuiman, M. W., Bull, F. C., Jamrozik, K., & Donovan, R. J. (2006). Neighborhood environmental factors correlated with walking near home: Using SPACES. *Medicine and Science in Sports and Exercise*, *38*(4), 708–714.

Ruth, M., & Franklin, R. S. (2014). Livability for all? Conceptual limits and practical implications. *Applied Geography*, *49*, 18–23.

Saaty, T. L. (1980). *The analytic hierarchy process*. New York, NY: McGraw-Hill.

Schwanen, T., & Páez, A. (2010). The mobility of older people: An introduction. *Journal of Transport Geography*, *18*, 591–595.

Shank, K. S. H., & Cutchin, M. P. (2016). Processes of developing 'community livability' in older age. *Journal of Aging Studies*, *39*, 66–72.

Steels, S. (2015). Key characteristics of age-friendly cities and communities: A review. *Cities*, *47*, 45–52.

Szell, M. (2018). Crowdsourced quantification and visualization of urban mobility space inequality. *Urban Planning*, *3*(1), 1–21.

Turel, H. S., Yigit, E. M., & Altug, I. (2007). Evaluation of elderly people's requirements in public open spaces: A case study in Bornova District (Izmir, Turkey). *Building and Environment*, *42*(5), 2035–2045.

UN. (2015). *World population ageing, 1950–2050*. New York, NY: United Nations Publications.

UN. (2018). *The 2018 revision of world urbanization prospects*. New York, NY: Population Division of the UN Department of Economic and Social Affairs.

UN-Habitat. (2010). *State of the world's cities 2010–2011: Bridging the urban divide*. London: Earthscan.

Wahl, H. W., Iwarsson, S., & Oswald, F. (2012). Aging well and the environment: Toward an integrative model and research agenda for the future. *The Gerontologist*, *52*(3), 306–316.

Warner, M. E., Xu, Y., & Morken, L. J. (2017). What explains differences in availability of community health-related services for seniors in the United States? *Journal of Aging and Health*, *29*(7), 1160–1181. https://doi.org/10.1177/0898264316654675

Wey, W. M., & Huang, J. Y. (2018). Urban sustainable transportation planning strategies for livable city's quality of life. *Habitat International*, *82*, 9–27.

World Health Organization. (2002). *Active ageing: A policy framework* (Paper no WHO/NMH/NPH/02.8). Geneva: WHO Press.

World Health Organization. (2007). *Global age-friendly cities: A guide*. Geneva: WHO Press.

Yazdani, A. A., & Tavakkoli-Moghaddam, R. (2012). Integration of the fish bone diagram, brainstorming, and AHP method for problem solving and decision making: A case study. *The International Journal of Advanced Manufacturing Technology*, *63*(5/8), 651–657.

Yu, J., Liu, Y., Chang, G. L., Ma, W., & Yang, X. (2011). Locating urban transit hubs: Multicriteria model and case study in China. *Journal of Transportation Engineering*, *137*(12), 944–952.

Yung, E. H., Conejos, S., & Chan, E. H. (2016). Public open spaces planning for the elderly: The case of dense urban renewal districts in Hong Kong. *Land Use Policy*, *59*, 1–11.

Zarghami, E., Sharghi, A., Olfat, M., & Kousalari, F. S. (2018). Using multi-criteria decision-making method (MCDM) to study quality of life variables in the design of senior residences in Iran. *Ageing International*, *43*(3), 279–296.

About the Authors

Ercüment Aksoy has been a Lecturer at Akdeniz University, Turkey, at the Department of Architecture, City Planning Programme, and the Geographic Information Systems in Vocational School of Technical Sciences, since 1995. His research area is geographic information systems and remote sensing applications. He is researching GIS and gerontology and the application of GIS in urban planning and has a particular interest in multi-criteria decision process applications.

Nilufer Korkmaz-Yaylagul is an Associate Professor of the Gerontology Department at Akdeniz University, Turkey. She has trained as a landscape architect at the University of Ankara, Turkey, and has completed her MSc studies in the field of landscape architecture at the same university. She earned a PhD degree in Social Anthropology—Urban Anthropology from Hacettepe University in 2008. She has carried out post-doctoral research on health and older Turkish immigrants at the Institute of Population Ageing of the University of Oxford, UK. She has been involved in the teaching of ecology and anthropology of ageing and medical anthropology at Akdeniz University since 2009. She has a particular interest in environmental and social gerontology.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 96–105
DOI: 10.17645/up.v4i2.1947

Article

Exploring the Experienced Impact of Studentification on Ageing-in-Place

Debbie Lager [1,2,*] and Bettina van Hoven [3]

[1] School of Social Studies, Hanze University of Applied Sciences, 9747 AS Groningen, The Netherlands; E-Mail: d.r.lager@pl.hanze.nl
[2] Department of Cultural Geography, Faculty of Spatial Sciences, University of Groningen, 9700 AV Groningen, The Netherlands
[3] Faculty of Spatial Sciences, University of Groningen, 9700 AV Groningen, The Netherlands; E-Mail: b.van.hoven@rug.nl

* Corresponding author

Submitted: 23 December 2018 | Accepted: 5 March 2019 | Published: 18 June 2019

Abstract
In this qualitative study we explore the experienced impact of studentification on ageing-in-place (i.e., ageing in one's own home and neighbourhood for as long as possible). Studentification, which refers to concentrations of students in residential neighbourhoods, has been associated with deteriorating community cohesion by several authors. This can negatively affect existing neighbourhood support structures. In examining this topic, we draw on in-depth interviews with 23 independently living older adults (65+) which were conducted in a studentified urban neighbourhood in the Netherlands. Our results show how the influx of students in the neighbourhood negatively affected older adults' feelings of residential comfort. In spite of this, none of the participants expressed the desire to move; they experienced a sense of familiarity and valued the proximity of shops, public transport and health services, which allowed them to live independently. To retain a sense of residential mastery, our participants dealt with negative impacts of studentification, at least in part, by drawing on accommodative coping strategies that weigh in broader experiences of physical and social neighbourhood change. In doing so, they rationalised and reassessed their negative experiences resulting from studentification. We discuss the implications of our findings for the development of age-friendly neighbourhoods.

Keywords
ageing-in-place; age-friendly neighbourhoods; qualitative research; studentification; The Netherlands; urban ageing

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

The proportion of the older population (65+) in OECD countries is rapidly increasing. Comprising 18% of the total population in 2010, it is projected that by 2050 one in four people will be aged 65 or above (OECD, 2015). Dealing with the increased costs of population ageing, many western governments have moved away from institutional care to ageing-in-place. As a result, older people are to remain living in their own homes and neighbourhoods for as long as possible. It is assumed that older adults benefit from informal care and support of family, friends and neighbours and the sense of independence and well-being they derive from ageing in familiar surroundings. However, these policy assumptions do not always correspond with the lived reality of those ageing in place (Golant, 2015; Lager, Van Hoven, & Huigen, 2013). Research suggests that older people can experience loneliness, obstacles to building social capital and a sense of exclusion from their locality (e.g., Buffel et al., 2012; Lager et al., 2015).

In 2006, to help develop supportive urban communities for older citizens, the World Health Organization (WHO) initiated the "Global Age-Friendly Cities" project.

In this project, cities around the world that were interested in supporting healthy ageing by becoming more age-friendly were brought together (Government of Canada, 2016). In the WHO's (2007) published guide, key characteristics of an age-friendly city were identified in terms of the built environment, social inclusion and service provision (see Figure 1).

Figure 1. The age-friendly city model according to WHO (2007).

This guide has become one of the most frequently used tools to assess the age-friendliness of cities and communities across the world (Buffel & Phillipson, 2018). Buffel and Phillipson (2018, p. 179) point out that "age-friendly activity has developed in the absence of a critical perspective on the way in which urban societies are changing". One of these issues concerns urban regeneration schemes, which can bring about economic and social inequalities, with "gentrified neighbourhoods at one end and areas of concentrated poverty at the other" (Buffel & Phillipson, 2018, p. 179). There is thus a need for greater knowledge of particular challenges for developing age-friendly initiatives, and for older adults to experience age-friendliness, in communities and neighbourhoods to feed into the further development of an age-friendly agenda.

It is in this context that we explore how older adults experience studentification and what the impacts are on ageing-in-place. Studentification concerns concentrations of students in areas within university towns and cities as a result of student housing in multiple occupation (HMOs) and/or purpose-built student accommodation (PBSA; Sage, Smith, & Hubbard, 2013; Smith, 2006). These include residential properties which are shared by more than one household and usually have common areas (e.g., shared bathroom and kitchen), either originally designed for occupation by one family (HMOs) or designed for student accommodation (PBSA). The body of literature concerning the studentification of neighbourhoods has emphasised the negative social and cultural effects of this transient population on local communities, specifically a sense of a deteriorating community cohesion among non-student residents (e.g., Hubbard, 2008; Sage et al., 2012, 2013; Smith, 2008). Sage et al. (2013, p. 2636) argue that studentification might produce "deep social divides along age cleavages" that could even result in an "age-divided city". For the older population living in studentified neighbourhoods, such a scenario might impair the perceived quality of life and neighbourhood support structures (Allinson, 2006; Sage et al., 2012). So far, to the best of our knowledge, studentification has not been discussed within the context of ageing-in-place. It seems to be a timely issue for university towns and cities, as they are faced with accommodating the various and, one might argue, opposing needs of both groups.

The idea for this article arose from our broader study on the subjective dimensions of ageing-in-place (see Lager et al., 2013, 2015, 2016). For this explorative study we conducted in-depth interviews with independently living older adults (65+) in three urban neighbourhoods in the city of Groningen, the Netherlands. During the time of the fieldwork in one of these neighbourhoods there was discontent and protest among the local residents regarding the studentification of their neighbourhood. In this article, we investigate how older residents of this particular neighbourhood experience neighbourhood changes, and particularly the impact of studentification as a significant part of this. First, we discuss the relevance of the neighbourhood for ageing-in-place. We then introduce the research context and approach. Next, the findings reveal how the studentification of the neighbourhood is tied up with experiencing neighbourhood decline. In the discussion we focus on the implications of our findings for ageing-in-place policy and the development of age-friendly neighbourhoods.

2. Ageing-in-Place in Urban Neighbourhoods and Studentification

Previous studies have noted several implications of studentification on the physical and social context of a neighbourhood. In order to relate this to its impact on older adults and ageing-in-place we first outline the role of the neighbourhood for older adults.

The neighbourhood, as a physical and social place of ageing, is argued to be more important for the well-being of older adults than for younger and employed people (Buffel et al., 2012). Generally, older adults tend to spend more time in their locality than their younger and employed counterparts (Buffel et al., 2012). To an extent, this has to do with retirement, which marks a shift from the workplace to the residential environment (Hagestad & Uhlenberg, 2005). Decreasing physical mobility and diminishing health can limit the time and energy available to engage in activities which are further from home

(Droogleever Fortuijn et al., 2006). As older adults spend increasing amounts of time in their direct environment, the neighbourhood as an experiential setting gains in importance (Golant, 2015). Local social contacts are found to be important to older adults' well-being in terms of experiencing sociability in the public places of the neighbourhood (e.g., Gardner, 2011; Lager et. al. 2015; Smith, 2009). With diminishing institutionalised resources and older adults' diminishing levels of independence, these local social contacts can become particularly important in securing social, emotional and instrumental support (Buffel et al., 2012).

Social embeddedness emerges from extensive periods of living in a neighbourhood (Gardner, 2011). Residential stability may result in a strong place attachment to the locality, an aspect that is of particular importance in older adults' well-being. Place attachment stems from a person's physical, social and autobiographical "insideness" (Rowles, 1983). This "insideness", or familiarity with a place, results from spatial routines and habits (physical insideness), integration in local social networks (social insideness) and the remembrance of events that develops through length of residence (autobiographical insideness; Rowles, 1983). Familiarity with the materiality of a neighbourhood can be beneficial in carrying out activities of daily living, such as grocery shopping, when physical and/or cognitive functions decrease in later life. This, in turn, can confer a sense of safety, control and independence (Buffel et al., 2012; Wiles, Leibing, Guberman, Reeve, & Allen, 2012). Place attachment has a functional dimension as well as an affective dimension. Experiences and feelings about the home and the neighbourhood can produce an emotional attachment to these places. This attachment can serve as a means to keep memories throughout the life course alive, thereby contributing to maintaining a sense of continuity of the self (Rubinstein & Parmelee, 1992).

Older adults' subjective experiences of their residential environment are important for understanding what matters most for ageing-in-place well (Golant, 2015). As Golant (2015, p. 13) notes, "the objectively defined environments portrayed by the experts do not necessarily have the same functional relevance for older people". To categorise older adults' residential emotional experiences, he introduced the model of residential normalcy. Here, a distinction is made between 'residential comfort' (the extent to which they experience pleasurable, hassle-free and memorable feelings) and 'residential mastery' (the extent to which they feel they are competent and in control). A positive valuation of both categories contributes to experiencing overall favourable residential experiences. The neighbourhood environment can magnify these experiences.

Urban neighbourhoods can create advantages and pose challenges with regard to older adults' well-being (Phillipson, 2014). On the one hand, urban environments can "produce advantages for older people in respect of access to specialized medical services, provision of cultural and leisure facilities, and necessities for daily living" (Phillipson, 2014, p. 1). This variation can bring about a range of positive emotions, such as relaxation, invigoration and excitement (Negrini, 2015). On the other hand, research on ageing in changing and deprived neighbourhoods has shown how urban environments can confer environmental stress and can contribute to older adults' social exclusion (e.g., Buffel, Phillipson, & Scharf, 2013; Smith, 2009; Van der Meer, Droogleever Fortuijn, & Thissen, 2008). In particular, this can jeopardise the well-being of older adults who lack the financial means to venture or move beyond the neighbourhood and thereby get stuck in these places (Phillipson, 2007).

It should be noted that the extent to which older adults experience their neighbourhood positively or negatively also relates to their coping repertoires (Golant, 2015). People may use psychological strategies (accommodative coping) to deal with obstacles and restraints in their residential environment, for instance by rationalising or reappraising their situation. They may also come into action (assimilative coping) and will try to make their problems go away, for instance, by modifying their activities or moving to another residential environment.

Based on the literature on studentification, it can be argued that, generally speaking, it does not positively contribute to older adults' residential experiences. In a study on a studentified neighbourhood in the UK, Sage et al. (2012, p. 1070) noted that, for established residents, "intergenerational differences in social expectations" can result in negatively experienced interactions with students. In general, the student population is young, seasonal and transient (Smith, 2006). As they only reside in an area during term-time, and for a maximum of about three years, they may fail to become involved in the community and may have less commitment to upholding the quality of the local environment (Hubbard, 2008; Smith, 2006). Smith (2006, p. 18) noted that the transient character of the student population and the negative effects of their presence, such as noise-nuisance and anti-social behaviour, can lead to "a gradually self-reinforcing unpopularity of the area for families" and, as a consequence, the character of the community changes. This can negatively impact on the older residents living in these places as studentification will then affect existing neighbourhood support structures. People need to know each other in order to become aware of when an older person is in need of support (Droogleever Fortuijn et al., 2006) and this may not happen due to the transient nature of students' residence in the neighbourhood.

Previous studies have found that students are less concerned with (or not in charge of) the maintenance of the area surrounding their residence, leading to littering and sidewalks that are overgrown with weeds from neglected gardens (Hubbard, 2008; Sage et al., 2012). Studentification has also been associated with traffic and parking issues, such as a shortage of off-street parking, causing congested streets. This may jeopardise the ac-

cessibility of the public spaces of the neighbourhood for those with visual and/or mobility impairments (Hubbard, 2008; Sage et al., 2012). Nevertheless, studentification can have a range of positive social and cultural impacts on neighbourhoods and for older people residing in these neighbourhoods. For instance, the presence of students can bring a sense of liveliness to the community (Allinson, 2006).

3. Research Context and Approach

In this article, we draw on in-depth interviews with 23 older adults in Selwerd (see Figure 2), a neighbourhood in the city of Groningen, that were conducted in 2010. Groningen (202,747 inhabitants; Onderzoek en Statistiek Groningen, 2018) can be considered a typical European city in terms of its high population density and its radio-concentric spatial structure. Groningen houses two institutes of higher education and attracts many students from the region, which results in a relatively young population compared to other Dutch cities.

In the context of Groningen, the neighbourhood of Selwerd is particularly appropriate for exploring how studentification can impact on ageing-in-place. Selwerd, a post-war neighbourhood built in the 1960s, is home to many residents who have lived there for several decades. Currently, 16% of Selwerd's residents are aged 65 and above, a slightly higher proportion than the municipality's average of 13% (Onderzoek en Statistiek Groningen, 2018). Selwerd was designated as an important location for student housing in the 1960s and three blocks of student flats were built there (see Figure 3). The neighbourhood is situated between the city centre and the Zernike University Campus and it only takes 5 to 10 minutes to reach either by bicycle, making it an attractive residential location for students. Currently, 13% of the neighbourhood's population consists of students. For the older population, the variety of shops present in Selwerd that cater for residents' everyday needs, as well as an indoor shopping centre in an adjacent neighbourhood and convenient access to public transport, make the neighbourhood a suitable place to age in place.

Since the year 2000, the neighbourhood has been in somewhat of a decline and became less attractive for families (Gemeente Groningen, 2010). As a consequence, housing prices in Selwerd stagnated which made it profitable for letting agencies and students' parents to buy and rent terraced homes and apartments (Gemeente Groningen, 2010). As a result, the number of students in HMOs in Selwerd increased, which led to unrest among the established residents who feared this process would further undermine social cohesion in Selwerd. In 2009, the neighbourhood council called for a student lock on this neighbourhood, which was adopted by the executive board of the municipal council in the same year. This meant that no new permits for HMOs were issued.

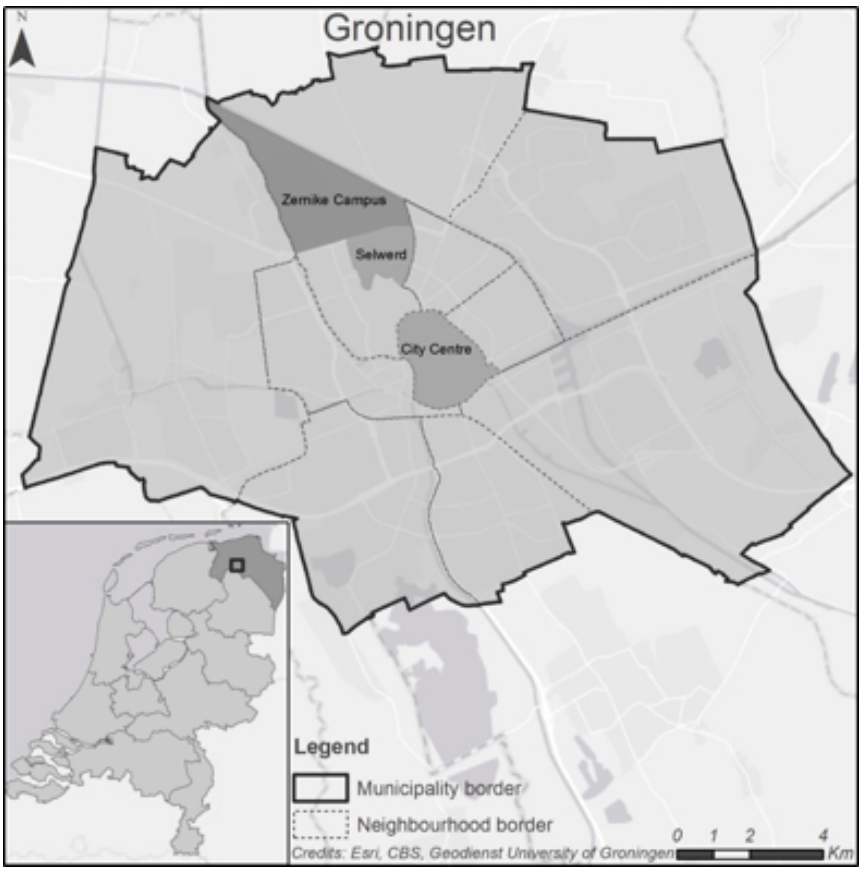


Figure 2. The neighbourhood of Selwerd, located between the Zernike Campus and Groningen city centre.

Figure 3. Selwerd seen from above, with three student flats located on the left. Retrieved from staatingroningen.nl

In 2013, a neighbourhood renewal programme commenced in Selwerd and the student lock was abolished in 2015.

In this research, five post-graduate student researchers (including the first author of this article) recruited participants through activities in Selwerd's community centre, door-to-door recruitment, and snowball sampling. The final group of participants comprises a self-selected sample where the only criterion for inclusion was that participants were older than 65 years. All the participants were white and had Dutch nationality (see Table 1 for their main characteristics). They were informed about the research through a letter of introduction that they received in their letterbox. At the start of the interview, the researchers explained the interview procedure, how research outcomes would be disseminated, and obtained informed consent. Participants' names and any other information that could be traced were changed to ensure anonymity.

Table 1. Characteristics of the participants.

	23 participants
Sex	
Women	12 participants
Men	11 participants
Age	
65–79	13 participants
80+	10 participants
Marital status	
Widowed	13 participants
Married	8 participants
Single/divorced	2 participants
Type of housing	
Senior apartment	18 participants
Single-family home	5 participants
Years of living in Selwerd	
1–9	5 participants
10–39	6 participants
40–47	12 participants

In-depth semi-structured interviews were conducted with all participants in their own homes. The interview questions focused on experiences, feelings and memories of participants' current residence, daily life in the neighbourhood, local social contacts and neighbourhood change. We did not ask specific questions about studentification. Transcripts were coded by the authors of this article, using qualitative data analysis software (NVivo8) applying thematic analysis (see Kitchin & Tate, 2000). In doing so, we were able to extract information from interview transcripts by themes pre-identified in the interview scheme. These themes originate from the theoretical framework and comprise our theoretical codes. In addition, new themes emerged from further open coding during analysis, primarily those regarding the relationships and experiences of older adults with students in the neighbourhood. The analysis continually moves between empirical data and theory as new findings are contextualised and interpreted using theory. This approach to coding draws on grounded theory but is more pre-structured as a result of the theoretically-informed interview-scheme which is leading in the analysis. The interaction between empirical data and theory is also called "analytical generalisation" (Baxter, 2016).

4. Ageing-in-Place in a Neighbourhood in Transition

During the analysis, it emerged that the participants felt conflicted about the suitability of the neighbourhood for

ageing-in-place. On the one hand, the majority of the participants were content with their residence, the location of their residence in relation to the shopping centre and access to public transport and health services. Yet, our participants' stories also highlight how their residential comfort was negatively impacted by the studentification of the neighbourhood. The sections below are structured around two key themes that resulted from the analysis of our data. Section 4.1 focuses on the experienced impact of studentification on participants' residential comfort. Section 4.2 focuses on the accommodative coping strategies participants used to deal with negative residential experiences resulting from studentification.

4.1. Experiencing Neighbourhood Change

As we indicated in Section 3, three blocks of student flats were built in Selwerd in the 1960s. The participants who moved to Selwerd in the 1960s were thus already acquainted with students being present in the neighbourhood. However, in recent years they noticed how the terraced homes, originally designed for families, were purchased by parents who then sublet them to their studying children and their friends:

> A lot has changed. There are more students. It's not like they should not get a place to stay, but they are buying normal houses; low-rise properties. In some of these houses there are up to six students. Well, you should see their curtains [not very proper] and that does not make me very happy. (Claire, female, 81)

This quote furthermore demonstrates how the increase of HMOs negatively affected participants' feelings of residential comfort (Golant, 2015). Participants complained about littering, noise, poorly maintained gardens, kerbs overgrown by weeds and parking issues, which mirrors the results of studies on the experienced impact of studentification on local communities (e.g., Hubbard, 2008; Sage et al., 2012; Smith, 2006). Some participants indicated that students' inconsiderate parking of their bicycles (a Dutch phenomenon) and kerbs overgrown by weeds from student houses' neglected gardens, jeopardised the accessibility of the streets when they walk around the neighbourhood:

> The neighbourhood is deteriorating and that's because of students. They park their bicycles everywhere. They have like six or seven bicycles and you just fall over them. (Sophie, female, 84)

Especially for the participants who have resided in Selwerd for several decades, the deteriorating quality of the local environment negatively affected their emotional attachment to the neighbourhood. This is exemplified in the following quote by Ellen (female, 76). When she was asked how the increase of students in Selwerd affected her, she replied:

> Last week we [Ellen and her husband] walked through our old street, but I do not care anymore. It used to be so tidy, but now you can barely walk across the sidewalk. They don't maintain their gardens. It does not mean anything to us anymore. We used to live there with great joy for thirty years and now it does not mean a thing to us.

In spite of this waning emotional attachment, none of the participants expressed the desire to move to another neighbourhood. The majority of the participants indicated that they felt at home in Selwerd. When asked why they felt at home, a common denominator turned out to be a sense of familiarity (or related fear of the unknown; see also Smith, 2009) and the proximity of facilities and services, which enabled them to live independently. Those who lived in the neighbourhood for several decades also indicated they felt at home because of their social embeddedness in the neighbourhood; they were greeted by other older residents and had friends and acquaintances living in their proximity:

> We want to stay in this neighbourhood, because of the shopping centre, the bus, the train, our GP, the pharmacy. If we were to move, we would have to change a lot. And our ex-colleagues and friends live in this neighbourhood. We don't see them that often, but we're there for each other when we need each other's help. (Kees, male, 78)

Golant (2015, p. 106) pointed out that "older people's desire to age in place acts as a powerful deterrent to moving". As we will discuss in the next paragraph, the participants dealt with this residential discomfort, at least in part, by drawing on coping strategies that weigh in broader experiences of physical and social neighbourhood change, and the increasing presence of ethnic minorities in Selwerd.

4.2. Dealing with Neighbourhood Change

The increase of students living among the neighbourhood's established residents was interpreted as a negative development. In order to maintain a sense of residential mastery, older adults used a variety of accommodative coping strategies (i.e.,. mind strategies; Golant, 2015).

When the participants talked about neighbourhood change, studentification was often discussed in relation to the increasing presence of ethnic minorities in Selwerd. The increase of people with a non-western background in Selwerd comprises a more recent development. Nowadays, statistics show that Selwerd is the most ethnically diverse neighbourhood in the city of Groningen (in 2011, 22% of the neighbourhood's population was of a non-western background compared to the city's average of 11%; Onderzoek en Statistiek Groningen, 2018). Claire (female, 81) discussed the influx of immigrants: "There

were a couple of years in which you could see a moving truck every week. White people moved out and immigrants moved in". Among the majority of our participants there seemed to be anxiety of the 'unknown'; they felt that the new residents had different norms and values to which they could not relate to and they contributed to an increase of crime in the neighbourhood:

> I don't hold anything against foreigners, really. They were born somewhere else and they did not ask for that. They have their own religion, that's fine. However, crime, that's the bad thing and we have that in this neighbourhood, that should not be the case. A lot of residents think the same about this issue. (Willy, female, 79)

In light of this, participants rationalised the nuisance and anti-social behaviour of students. This is shown in the following quote by Ellen (female, 76), who attributed vandalism which was probably caused by students, to their "overconfidence":

> A couple of times, there were students who scratched cars. We were not happy about that. They were overconfident and were drinking beer. It was clear these were students, because the cars were scratched all the way up to one of the student flats.

It was notable that a number of participants indicated they could relate to students as they used to be young themselves and/or had grandchildren who were studying, which they used as a means to reassess anti-social behaviour. Furthermore, multiple participants expressed the view that students are very reasonable, and it is possible to have a conversation with them in the case of noise-nuisance. Kees (male, 78) and his wife used to live next to a student house, before they moved to a senior apartment:

> They always warned us when they had visitors. Well, I think that should not be a problem, right? When you are young you should be able to celebrate your birthday? However, people were leaving the party at 22:00 and then at 24:00 and then at 03:00 and there was a lot of noise. They did not realise we could hear this in our bedroom….I told them that it was noisy. The same day they brought a bouquet of flowers and apologised.

The participants who were living in a senior apartment also experienced noise-nuisance from students, when students would come back from a night out in the city centre. However, possibly because they were not living directly next to students, they were more positive in their appraisal of the nuisance. They felt that students contributed to the liveliness of the neighbourhood and interpreted the noise as something that belongs to city life. As Henk (male, 69) indicates:

> I don't have a problem with students. When a group of students comes back from a night out in the city, they are very noisy. But I do not mind, it's something that belongs to city life. It's not a disaster when I can't sleep because of the noise, I can sleep in.

The way in which participants dealt with nuisance experienced from students was in stark contrast to the way in which they talked about and dealt with similar behaviour by ethnic minority residents in their neighbourhood. The feeling of not being able to communicate and the perceived difference in norms and values prevented participants from interacting with them. As the following quote shows, some participants seemed to use resignation as a coping strategy ("it's their culture") in order to deal with the 'newcomers':

> In the end, they need a place to stay. But I do not know whether they will adjust to the place. 'Anything goes', that's their culture. And they just close themselves off [from their surroundings]. I can point out the homes of foreigners, everything [their curtains] is closed. (Gerard, male, 74)

The sense of resignation also seemed to apply to the broader experiences of physical and social degradation of the neighbourhood. They were hoping for positive change but did not believe that this would happen soon. Some participants felt that their neighbourhood was neglected by the municipality, because in other post-war neighbourhoods in the city neighbourhood renewal had already commenced. They indicated they did not hold the municipality in high regard, as they felt the housing of students and immigrants was not properly managed. Some participants had visited meetings regarding the plans for the neighbourhood but felt that "the municipality" was not open to their ideas about tackling the challenges of studentification. Hence, the solution to dealing with negative residential experiences seemed to be not to bother. As Willy (female, 79) indicated when she was asked about how she perceived the studentification of Selwerd: "I'm not bothered, you shouldn't get annoyed by anything, otherwise you don't have a life".

5. Conclusions

Studentification, which refers to concentrations of students in residential neighbourhoods, can pose challenges for older adults who are ageing-in-place. Older people are to remain living in their own homes and neighbourhoods for as long as possible; benefitting from informal care and support of family, friends and neighbours and the sense of independence and well-being they derive from ageing in familiar surroundings. In this article, we explored the experienced impact of studentification on ageing-in-place for older adults living in an urban neighbourhood in the Netherlands. Our results show how the influx of students in the neighbourhood of Selwerd

negatively affected older adults' feelings of residential comfort. In line with the body of literature concerning studentification, our participants complained about issues such as noise-nuisance, anti-social behaviour and parking (e.g., Hubbard, 2008; Sage et. al., 2012, 2013; Smith, 2008). Especially for those who were residing in the neighbourhood for several decades, this negatively affected their emotional attachment to the neighbourhood. In spite of this, none of the participants expressed the desire to move. They felt at home in Selwerd, the neighbourhood environment felt familiar to them and they valued the proximity of shops, public transport and health services. To retain a sense of residential mastery, our participants dealt with negative impacts of studentification, at least in part, by drawing on accommodative coping strategies that weigh in broader experiences of physical and social neighbourhood change. In doing so, they rationalised and reassessed their negative experiences resulting from studentification.

This study contributes to understanding the realities of ageing-in-place. One of the underlying assumptions of ageing-in-place policies is that the local social environment will act as a supportive community for their older and more vulnerable residents. Studentification has been associated with a deteriorating community cohesion, which can challenge existing neighbourhood support structures. In the case of this research, the question is whether studentification poses a problem for ageing-in-place in terms of challenging neighbourhood support structures. Having a suitable dwelling and the proximity of shops and health services (and if necessary, the help of children and friends/acquaintances) allowed our participants to live independently. The increasing presence of students did not seem to challenge this. However, this might not be the case everywhere, such as in working-class communities in which social contacts often revolve around local family and neighbour networks (see Lager et al., 2013). It should also be noted that studentification might produce (or contribute to) social segregation within the context of a neighbourhood. While the majority of our participants experienced residential comfort in their dwelling, the changes in their wider environment were causing feelings of uncertainty and anxiety, as they were not in control of these changes. As we have shown, how they dealt with these changes differed for the student and immigrant population. There was a relative tolerance of students' anti-social behaviour (see also Munro & Livingston, 2012) that contrasted with their views on immigrants, whom they associated with an increase in crime in the neighbourhood. For older people, it may be hard to change their dispositions about 'others' compared with younger generations, as they have limited opportunities to encounter difference (Valentine, 2015). Research on the subjective dimensions of ageing-in-place would benefit from taking older adults' dispositions about other neighbourhood residents into consideration. Such knowledge could contribute to developing age-friendly interventions in which the focus lies on enhancing mutual respect and understanding, instead of solely focusing on older adults' social integration in the community.

Buffel and Phillipson (2018) have pointed out that in developing age-friendly activity, attention to changes in urban societies is lacking. By discussing studentification in the context of ageing-in-place, we have shown how older adults' subjective experiences of ageing in urban neighbourhoods are interwoven with the ways in which urban societies are changing. At a policy level, the concept of an age-friendly agenda needs to be integrated into urban regeneration schemes, not only in terms of the more tangible elements of the age-friendly model, such as housing and transportation, but also by paying attention to the social elements. This could be done by focusing on creating places in the neighbourhood that are relational in nature: places that are characterised by "overlapping needs, interests, and patterns of behaviour" (Thang & Kaplan, 2013, p. 228). There are numerous examples of such relational places within the body of literature on intergenerational programs, although they focus on the 'book-end' generations (i.e., children and older adults). In the Netherlands, several initiatives have emerged in recent years which promote intergenerational contact between older adults and students. These initiatives are aimed at decreasing social isolation and loneliness amongst the older population. This includes, for example, a restaurant created by students in Rotterdam called 'Grandma's pop-up' in which older people, under the supervision of a chef, serve traditional Dutch dishes, and several care-homes that offer students rent-free housing for which they, in turn, have to provide the older residents with social and practical support (see Gelmers, 2015; Reed, 2015). As "important actants in the neoliberal city", higher education institutions (HEIs) have the power to remake local communities (Bose, 2015, p. 2616), and hence could play an important role in developing age-friendly initiatives.

In this study, older adults' subjective experiences of ageing-in-place took centre stage. As Hockey, Phillips and Walford (2013, p. 539) argue "the importance of place meanings and attachments for older people's use of space" has found little resonance when it comes to implementing age-friendly policies. Partly, this has to do with the limited extent to which older people are included in decision-making processes about their local environment (Buffel & Phillipson, 2018; Hockey et al., 2013). Some of our participants felt that the municipality was not open to their ideas about tackling the challenges of studentification in Selwerd, and as a consequence they gave up and decided not to be bothered. It seems to be a missed opportunity not to involve them in this issue, as older residents have much to contribute to urban neighbourhoods' physical, social and cultural revival (Wiesel, 2012). For policymakers and planners, visiting older adults in their own homes and neighbourhoods and listening to their stories could provide valuable information for the practice of place-design.

Acknowledgments

The authors would like to thank the respondents for sharing their stories with us. We would also like to thank Linden Douma, Dyon Hoekstra, Jinko Rots and Inge de Vries for the pleasant collaboration in collecting data in Selwerd in 2010. We are particularly grateful for the English language editing that was carried out by David Beynon.

Conflict of Interests

The authors declare no conflict of interests.

References

Allinson, J. (2006). Over-educated, over-exuberant and over here? The impact of students on cities. *Planning Practice & Research*, *21*(1), 79–94.

Baxter, J. (2016). Case studies in qualitative research. In I. Hay (Ed.), *Qualitative research methods in human geography* (pp. 130–146). Don Mills: Oxford University Press Canada.

Bose, S. (2015). Universities and the redevelopment politics of the neoliberal city. *Urban Studies*, *52*(14), 2616–2632.

Buffel, T., & Phillipson, C. (2018). A manifesto for the age-friendly movement: Developing a new urban agenda. *Journal of Aging & Social Policy*, *30*(2), 173–192.

Buffel, T., Phillipson, C., & Scharf, T. (2013). Experiences of neighbourhood exclusion and inclusion among older people living in deprived inner-city areas in Belgium and England. *Ageing & Society*, *33*(1), 89–109.

Buffel, T., Verté, D., De Donder, L., De Witte, N., Dury, S., Vanwing, T., & Bolsenbroek, A. (2012). Theorising the relationship between older people and their immediate social living environment. *International Journal of Lifelong Education*, *31*(1), 13–32.

Droogleever Fortuijn, J., van der Meer, M., Burholt, V., Ferring, D., Quattrini, S., Hallberg, I. R., . . . Wenger, G. C. (2006). The activity patterns of older adults: A cross-sectional study in six European countries. *Population, Space and Place*, *12*(5), 353–369.

Gardner, P. J. (2011). Natural neighborhood networks—Important social networks in the lives of older adults aging in place. *Journal of Aging Studies*, *25*(3), 263–271.

Gelmers, W. (2015). Pop-up restaurant serving grandma's signature dishes. *Popupcity*. Retrieved from http://popupcity.net/pop-up-restaurant-serving-grandmas-signature-dishes

Gemeente Groningen. (2010). *Wijkanalyse Selwerd* [Neighbourhood analysis Selwerd]. Groningen: Gemeente Groningen.

Golant, S. M. (2015). *Aging in the right place*. Baltimore, MD: Health Professions Press.

Government of Canada. (2016). Age-friendly communities. *Canada.ca*. Retrieved from https://www.canada.ca/en/public-health/services/health-promotion/aging-seniors/friendly-communities.html#sec3

Hagestad, G. O., & Uhlenberg, P. (2005). The social separation of old and young: A root of ageism. *Journal of Social Issues*, *61*(2), 343–360.

Hockey, A., Phillips, J., & Walford, N. (2013). Planning for an ageing society: Voices from the planning profession. *Planning Practice & Research*, *28*, 527–543.

Hubbard, P. (2008). Regulating the social impacts of studentification: A Loughborough case study. *Environment and Planning A*, *40*(2), 323–341.

Kitchin, R., & Tate, N. J. (2000). *Conducting research into human geography*. Harlow: Pearson Education Limited.

Lager, D., Van Hoven, B., & Huigen, P. P. P. (2013). Dealing with change in old age: Negotiating working-class belonging in a neighbourhood in the process of urban renewal in the Netherlands. *Geoforum*, *50*, 54–61.

Lager, D., Van Hoven, B., & Huigen, P. P. P. (2015). Understanding older adults' social capital in place: Obstacles to and opportunities for social contacts in the neighbourhood. *Geoforum*, *59*, 87–97.

Lager, D., Van Hoven, B., & Huigen, P. P. P. (2016). Rhythms, ageing and neighbourhoods. *Environment and Planning A*, *48*(8), 1565–1580.

Munro, M., & Livingston, M. (2012). Student impacts on urban neighbourhoods: Policy approaches, discourses and dilemmas. *Urban Studies*, *49*(8), 1679–1694.

Negrini, C. (2015). *Ageing in the city: Geographies of social interactions and everyday life* (Unpublished Doctoral dissertation). Kingston University, London.

OECD. (2015). *Ageing in cities*. Paris: Organisation for Economic Co-operation and Development.

Onderzoek en Statistiek Groningen. (2018). Gronometer. *Gronometer*. Retrieved from http://groningen.buurtmonitor.nl

Phillipson, C. (2007). The 'elected' and the 'excluded': Sociological perspectives on the experience of place and community in old age. *Ageing & Society*, *27*(3), 321–342.

Phillipson, C. (2014). Developing age-friendly urban communities: Critical issues for public policy. *Public Policy & Aging Report*, *25*(1), 4–8.

Reed, C. (2015). Dutch nursing home offers rent-free housing to students. *PBS: Public Broadcasting Services*. Retrieved from http://www.pbs.org/newshour/rundown/dutch-retirement-home-offers-rent-free-housing-students-one-condition

Rowles, G. D. (1983). Place and personal identity in old age: Observations from Appalachia. *Journal of Environmental Psychology*, *3*(4), 299–313.

Rubinstein, R. L., & Parmelee, P. A. (1992). Attachment to place and the representation of life course by the elderly. In I. Altman & S. M. Low (Eds.), *Place attachment* (pp. 139–1630). New York, NY: Plenum Press.

Sage, J., Smith, D., & Hubbard, P. (2012). The diverse ge-

ographies of studentification: Living alongside people not like us. *Housing Studies*, *27*(8), 1057–1078.

Sage, J., Smith, D., & Hubbard, P. (2013). New-build studentification: A panacea for balanced communities? *Urban Studies*, *50*(13), 2623–2641.

Smith, A. E. (2009). *Ageing in urban neighbourhoods. Place attachment and social exclusion*. Bristol: The Policy Press.

Smith, D. P. (2006). *'Studentification'. A guide to opportunities, challenges and practice*. London: Universities UK.

Smith, D. P. (2008). The politics of studentification and '(un)balanced' urban populations: Lessons for gentrification and sustainable communities? *Urban Studies*, *45*(12), 2541–2564.

Thang, L. L., & Kaplan, M. S. (2013). Intergenerational pathways for building relational spaces and places. In G. D. Rowles & M. Bernard (Eds.), *Environmental gerontology. Making meaningful places in old age* (pp. 225–252). New York, NY: Springer Publishing Company.

Valentine, G. (2015). Intergenerationality and prejudice. In R. M. Vanderbeck & N. Worth (Eds.), *Intergenerational Space* (pp. 155–168). Oxon: Routledge.

Van der Meer, M., Droogleever Fortuijn, J., & Thissen, F. (2008). Vulnerability and environmental stress of older adults in deprived neighbourhoods in the Netherlands. *Tijdschrift voor economische en sociale geografie*, *99*(1), 53–64.

Wiesel, I. (2012). Can ageing improve neighbourhoods? Revisiting neighbourhood life-cycle theory. *Housing, Theory and Society*, *29*(2), 145–156.

Wiles, J. L., Leibing, A., Guberman, N., Reeve, J., & Allen, R. E. S. (2012). The meaning of "aging in place" to older people. *The Gerontologist*, *52*(3), 357–366.

World Health Organization. (2007). *Global age-friendly cities: A guide*. Geneva: World Health Organization.

About the Authors

Debbie Lager is a Cultural Geographer. Her research interests include the subjective dimensions of ageing-in-place and ageing in urban neighbourhoods. She has extensive experience in qualitative methodologies and has used several methods, such as photovoice and walking interviews to understand how older adults experience and make use of neighbourhood space. She is currently working as a lecturer in Social Work at the Hanze University of Applied Sciences.

Bettina van Hoven is Associate Professor of Cultural Geography and Academic Director of Education at the University College Groningen, the Netherlands. Her recent research has concentrated on the feelings of belonging and the attachment of various population groups to the place where they live. In the past, she has worked on projects involving women in Eastern Europe, diaspora and migration, institutions, ethnicity, sexuality, disabilities, youth and nature.

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 106–122
DOI: 10.17645/up.v4i2.2012

Article

Benches as Materialisations of (Active) Ageing in Public Space: First Steps towards a Praxeology of Space

Thibauld Moulaert [1,*] and Anna Wanka [2]

[1] Laboratoire Pacte, CNRS UMR 5194/Université Grenoble Alpes, 38000 Grenoble, France;
E-Mail: thibauld.moulaert@umrpacte.fr
[2] Research Training Group "Doing Transitions", Department for Social Pedagogy and Adult Education, Goethe University Frankfurt on the Main, 60323 Frankfurt am Main, Germany; E-Mail: wanka@em.uni-frankfurt.de

* Corresponding author

Submitted: 7 February 2019 | Accepted: 16 May 2019 | Published: 18 June 2019

Abstract
In its promotion of "active ageing" through Age-Friendly Cities and Communities (AFCC) and the Global Network on Age-Friendly Cities and Communities (GNAFCC), the World Health Organization has developed a vision of ageing that links socio-spatial environments to personal lifestyles and community support. Approaching age-friendly environments from a "doing" perspective shifts our focus from such ideals to social practices, materialisations, and representations produced. Regularly referred to in AFCC discourse, public benches offer a great illustration for such materialisations. This article asks: what do benches tell us about the way ageing is framed and shaped in the AFCC discourse? How do benches themselves exhibit agency in it? Theoretically based on Lefebvrian social theory and critical gerontology, our reflexive article explores promotional/policy documents supporting AFCC worldwide, "good practices" shared by GNAFCC, and a series of European field observations around AFCC and benches and, finally, personal observations of ageing in public space around benches. Drawing on the Lefebvrian differentiation between representational benches, representations of benches, and social practices of benches, we show how benches can be considered as a socio-technical "assemblage" able to: 1) forge ambivalent representations and solutions for "active ageing" in public space, 2) illustrate, beyond the symbolic of space, the symbolic difficulties of "real" participative and multi-stakeholders governance promoted through "age-friendliness", and 3) explore everyday life practices of "spatial expulsion" of "ageing in public space" for older adults. In conclusion, we suggest a major shift for the AFCC program by finding inspiration in African practices of "ageing in public space".

Keywords
active ageing; age-friendly cities; critical gerontology; community life; environmental gerontology; public space; praxeology

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and the Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

Urbanisation and demographic change constitute two of the major developments of the 21st century. In 2014, 74% of Europe's population lived in urban areas (United Nations, Population Division, 2018), and by 2030, at least a quarter of that percentage will be aged 60 and over (Handler, 2014). Connecting these two global trends, the World Health Organization (WHO) launched a number of policy initiatives based on promoting "age-friendly cities". These initiatives are based upon the WHO concept of "active ageing" as the core element (Buffel, Phillipson, & Scharf, 2012). In 2005, the WHO initiated the "Global Age-Friendly Cities" project involving 33 cities, producing a "Global Age-Friendly Cities" guide (WHO, 2007a) that has been used as a flexible, yet in-

fluential, checklist for policy-makers (Plouffe, Kalache, & Voelcker, 2016), which contrasts with the critical interpretation of a "static" vision of age-friendliness (Keating, Eales, & Phillips, 2013). While such checklists have been critically presented as an illustration of a "model of the 'ideal' city achieved through appropriate policy and service interventions" (Buffel et al., 2012, p. 598), Buffel and her colleagues call for "a focus on the material conditions of city life [as] a better starting point for understanding pressures on the lives of older people" (Buffel et al., 2012, p. 598).

Even though analysis of the literature suggests that the WHO's age-friendly cities framework is only one model that appears among a variety of potential ones (Lui, Everingham, Warburton, Cuthill, & Bartlett, 2009), and even though it has been applied in different forms and with different foci (Moulaert & Garon, 2016), the main idea of promoting active ageing through age-friendly environments and the general "age-friendliness" have spread across policies in various places in the world since the launch of the Global Network on Age-friendly Cities and Communities (GNAFCC) in 2010. Now, May 2019, with 847 individual cities and communities and 15 affiliate programs[1], the GNAFCC is developed in 39 countries and, according to the WHO (2019), it covers "over 230 million people worldwide". Africa was the only region with no members in the GNAFCC. Two core elements of this program are: 1) the (call for) participative methodologies to collect voices of older people or to build bottom-up public policies, including urban planning policies, with older people, and 2) the promotion of a multi-stakeholder perspective beyond central ageing policy players. Officially, the WHO has now replaced "active ageing" with "healthy ageing" (WHO, 2015, 2018) and targeted the promotion of individual "functional ability".

Adopting the "capability approach" of Amartya Sen, the organisation writes:

> Functional ability comprises the health-related attributes that enable people *to be and to do what they have reason to value*. It is made up of the intrinsic capacity of the individual, relevant environmental characteristics and the interactions between the individual and these characteristics. (WHO, 2015, p. 28; emphasis added)

To reach it, the WHO nevertheless continues to mention "active ageing": "*Healthy Ageing*, like *Active Ageing*, emphasizes the need for action across multiple sectors, and enabling older people to remain a resource to their families, communities and economies" (WHO, 2019, p. 3). The shift confirms the locus on action, not only "cities" but "all sub-national levels of government, for any sector, public or private" (WHO, 2018, p. 3).

What does it mean, for an international organisation supporting public health, to come to the urban planning agenda? Is there any contradiction in promoting "active" and "healthy" ageing while, at the same time, supporting people in "being and doing what they have reason to value"? In the search for more "desired" ageing, does the WHO allow "mature subjects to develop multiple aspects of their experience that permit the emergence of life course-specific contributions to the wider social good?" (Moulaert & Biggs, 2013) How far does the Age-Friendly Cities and Communities (AFCC) governance model permit such freedom of choice? How far does it contribute to a capability perspective (São José, Timonen, Amado, & Santos, 2017)? Regarding the urban governance model promoted (one of multi-stakeholders, multi-levels, associated with a bottom-up perspective supporting "participation of older people"), does it support the democratic model (such as the "participative democracy" in France) by offering real power to older people? Or, on the contrary, does it offer new avenues for local players? Such questions can find an echo in the urban governance debate. "Classically, the literature on urban governance (or urban regimes or urban growth coalitions) aimed at pointing towards various mechanisms to create a collective capacity to go beyond market and state failures (Logan & Molotch, 1987; Stone, 1989)" (Borraz & Le Galès, 2010). Borraz and Le Galès conclude: "There is a good deal of urban governance going on in European cities but not all the time, not for all the groups, not for all the neighbourhoods and not so much for the peripheries of the city" (Borraz & Le Galès, 2010).

This reflexive article is based upon longstanding observation of AFCC development in various parts of the world, including "champions" like the Quebec case, New York, or Manchester (Moulaert & Garon, 2016); as researchers, we also participate in projects inspired by, and developed around, AFCC in Belgium (Houioux & Moulaert, 2017) and Austria (Wanka et al., 2018). Regarding these experiences, we both notice a distinction between discourse and practices promoted; we also both notice, in terms of urban planning, (typically, the WHO refers to three domains for "physical environments": the built environment, transport, and housing) that benches have been regularly mentioned to illustrate action through "built environment" next to pavement attention or pedestrian crossing (WHO, 2007b). It, therefore, appears that "public benches" could be considered as a good socio-material disposal, a great "assemblage of human and non-human", *assemblage* being referred to by Deleuze and Guattari and to the Actor-Network Theory (ANT) as "a mode of ordering heterogeneous entities so that they work together for a certain time". (Müller, 2015, p.28) To unfold such "assemblage", we propose a theoretical model of "ageing in public space" inspired by the three dimensions model of

[1] "Affiliates are national or regional/state governments, civil society or research organizations, national or transnational city or community networks in WHO Member States that are working to promote age-friendly environments at the local, regional, national or international level" (WHO, 2019). Such affiliates can be very large, like the Quebec Province, which includes more than 899 municipalities.

space by Lefebvre (Lefebvre, 1991) and by a "doing" perspective on ageing (Wanka et al., 2018). Such a model has already been tested (Moulaert, Wanka, & Drilling, 2018) to discuss the level of internationalisation of the general framework of ageing and social exclusion (Walsh, Scharf, & Keating, 2017) and to propose a theoretical advance in "environmental gerontology" from "environmental press to spatial expulsion" (Wanka, Moulaert, & Drilling, 2019). Here, its use is suggested in order to consider public benches as the "usual suspect" to connect the various (and potentially contradictory) conceptions of ageing in public space emerging through urban research and policies governance supported by the GNAFCC.

2. Methodology

This article is reflexive. The first part of the empirical material has originally been collected as intuitive materials: here, we collect the WHO global documents explaining the AFCC framework: the 2007 guide (WHO, 2007a), its checklist (WHO, 2007b; see Figure 2); AFCC guide from affiliate programs from Quebec (Équipe de Recherche MADA Québec & Carrefour Action Municipale et Famille, 2013) and from France (Giacomini & Lefebvre, 2019; Lefebvre & Chapon, 2014), and documents from "champion cities" like New York (Finkelstein, Garcia, Netherland, & Walker, 2008) and Manchester (Buffel, 2015; Manchester City Council, 2009), these last cities having included a Master thesis on benches (Barron, 2015). These cities are considered "leaders" because they are both strongly connected with the historical development of GNAFCC; New York city was member of the 33 cities at the beginning of the program (WHO, 2007a) and Age-friendly New York city was awarded "Best Existing Age-friendly Initiative in the World" in 2013 by the International Federation on Ageing. Manchester was initially absent from the first WHO study. However, it has rapidly become a visible city at the European level, with its image and practices circulating in transnational spheres. Manchester has been cited in European areas as well as in the Organisation for Economic Co-operation and Development report (OECD, 2015). In all these documents, we isolated the images and references on "public benches".

To complete this first "grey literature", we explore the "Global Database of Age-friendly Practices" (https://extranet.who.int/agefriendlyworld/afp) by selecting actions under the proposed category of "urban development" (26 "practices" were isolated) and under the proposed category "be mobile" of "desired outcome for older people" (27 "practices" were isolated). In each of these two categories, we find the same 5 cases of "benches", 4 of them being clearly centred on "bench and seat", one being indirectly concerned with benches as part of park planning (see Appendix). All "proposed categories" came from GNAFCC website.[2] This database is built to present inspiring practices on AFCC and, therefore, the cases can be seen as "good examples" to be shared.

Lastly, we compare the ethnographic observation of bench installation and use in Vienna, Austria, and in a French city close to Grenoble (it includes 5 interviews with older people walking outside). Here, the material explores the dissemination of benches and how older people are using them or not.

3. Exploring the Complexity of "Ageing in Public Space": Henri Lefebvre's Tryptic and the Search for Praxeology of Space

The work of Henri Lefebvre (1991) is especially valuable for our understanding and may be used not only as a general justification to support the "right to the city" of older people (Buffel et al., 2012). Lefebvre introduces his understanding of the production of space early on in his theory of urban development, from which further fundamental urban research work has benefited. According to Lefebvre, place is a product of the dynamic between everyday practices and perceptions of people (spatial practice), cognitive concepts or theories of space (representational space), and the spatial imaginary (representations of space; Lefebvre, 1991):

- Spatial practice refers to the everyday practices and perceptions with which ordinary people encounter and use space. It comprises the daily routines and paths older people follow within their scope of action, the places they avoid, and the ways they appropriate places and attach a feeling of home to them.
- Representational space refers to the passively, instead of actively (see above), experienced space—the way people subconsciously read and understand signs and symbols in space. These symbols help us to distinguish a road from a sidewalk or a playground from a park, but they also give us clues on where to go and where not to go, for example via signs of disorder that might symbolise crime in a certain area (cf. Kelling and Wilson's broken windows hypothesis). Hence, representational space and spatial practice are closely related.
- Representations of space are the conceptualisations of space made by planners, scientists, and policy stakeholders. The representations may manifest materially in the form of maps, plans, models, and designs. Such representations are laden with ideologies and have a substantial role and specific influence in the production of space. Regarding ageing, concepts of age-friendly cities would constitute a very clear case of the representations of space.

[2] Surprisingly, the website even presents around 10 practices from 1974 to 2001. As we know, "active ageing" has only been promoted since 2002 by the WHO, so what does such "ghost" actions mean? They might illustrate the capacity of local stakeholders to present existing practices as "innovations".

We suggest that such concepts would assist in offering a deeper understanding of the experiences of everyday life of place (spatial practice) in relation to public policies (which are influenced by representations of space such as AFCC). It might also be a starting point for conceptualising new solutions for the challenges of "ageing in public space", including social exclusion (spaces of representation). Nevertheless, the historical Marxist perspective of Lefebvre also means that his triad insists on power circulation. In critical urban research, urban development is understood as being the result of actions and decisions made by different powerful stakeholders. Social, economic, physical, as well as spatial structures of neighbourhoods and cities are understood as being in constant change and producing relational spatial structures, which in theories of urban development are often referred to as "social space" or "practice of everyday life" (de Certeau, 1984; Sennett, 1999). Such spaces are understood as being the result not only of human actions, but also as mirroring social relations and being influenced by the wide scope of human action. Power relations refer to the structural and political dimensions of space.

Following this perspective, Lefebvre's theory suggests what social sciences call a "doing" perspective or praxeological on space. This means space is nothing as static, pre-existent, or equivalent as a container; instead, it is something that is continuously produced and reproduced through social practices (Butler, 2004; Löw, 2008). What constitutes social space is the human activity that takes place in it. The philosopher and social geographer Ted Schatzki (1991), for example, gives an early practice-theoretical account of the construction of space through practices. He claims that "human agency is inherently spatial" (Schatzki, 1991, p. 651), that social practices are hence inherently spatial phenomena and that space is an inherently praxeological matter. Social space is a space to do something: a park is linked to a different set of deployable practices than a street, playground, beach, etc. And a bench is, consequently, linked to specific sets of practices, like resting. Reckwitz (2012) goes as far as to claim that social practices form the "missing" link urban sociology has been searching for, namely by preventing the scientist from leaning either towards "the objectivism of the present container model or towards the subjectivism of a purely experiential or imagined space":

> When social practices as on-going activities drag bodies and artefacts with them, they always necessarily "spatialise", meaning they produce their respective spaces as three-dimensional arrangements comprising artefacts and bodies. (Reckwitz, 2012, p. 252)

Space is, thus, something that is both constituted by practices and defines the range of practices that are appropriated to deploy within it (comparable to Goffman's concept of behaviour setting). Although a bench is linked to practices of resting, for example, sleeping on benches in public spaces may be stigmatised, and increasingly prohibited through specific design elements.

Different complexes of social practices co-produce spaces, and some of these complexes are more powerful than others. For example, urban planning practices or practices of house selling or renting might play a more significant part in spatial segregation (as spatialised inequalities) than practices of everyday appropriation. Yet, being embedded into a fabric of other social practices, urban planning practices alone can never determine the production of spaces—what in the end defines them is their actual everyday use. Thus, a praxeological or "doing" approach towards conceptualising space is neither in favour of determinist, functionalist, or top-down approaches, nor is it in favour of completely participatory, bottom-up approaches. It will be illustrated by the tension between the top-down vision of benches in AFCC (a bench to rest) and practices of benches explored through participative approaches (when older people participate, they share other senses then resting, such as "going out" from home).

In the following section, we use the assemblage of "public benches" to analyse the "structural and political dimension of space" in the new "active and healthy ageing" WHO agenda through the lens of social practices and their materiality. "Assemblage" is the translation of the French "agencement" defined by Deleuze and Guattari in *Mille Plateaux*. Referring to this origin, Müller identifies 5 features. First, "assemblages are *relational*. They are arrangements of different entities linked together to form" (Müller, 2015, p. 28). In contrast with ANT, an assemblage is composed of relations of exteriority, meaning that the explanation of the relations is never (only) situated in the components or entities. Second, "assemblages are *productive*". This strongly applies to our search for a praxeology of space and suggests some contradictions with our Lefebvrian tool and its importance of representations. Third, "assemblage is *heterogeneous*", composed, like ANT, of diverse entities, humans and non-humans. Fourth, and deeply shaped by Deleuze and Guattari, "assemblage is caught up in a dynamic of *deterritorialisation* and *reterritorialisation*" (Müller, 2015, p. 29), best illustrated by the importance of "wind and epidemics" in place of "heredity, alliance" in their philosophical perspective. Fifth, "assemblages are *desired*", referring to their corporeal component. In short, "assemblage" is a tool to follow the multidimensional perspective of space opened by Lefebvre and to adapt it towards the exploration of a new praxeology of ageing in public space.

4. Public Benches as an Assemblage of "Ageing in Public Space"

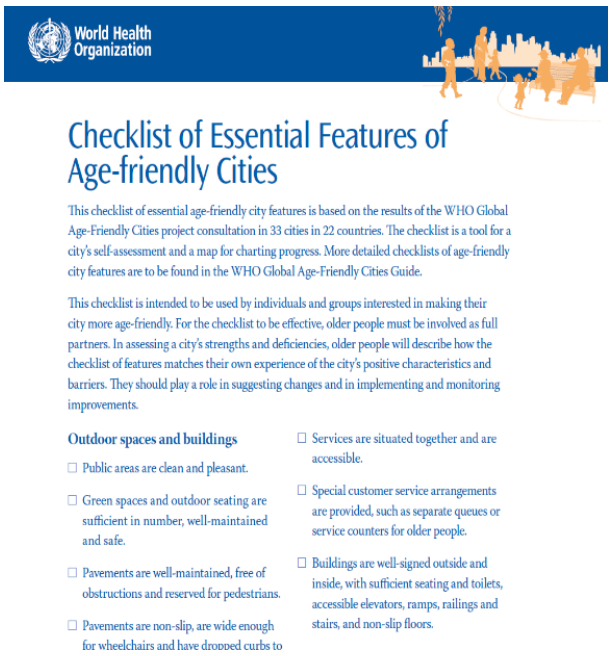
Applying the three dimensions of space together, we show how the assemblage of public benches in AFCC: 1) it forges ambivalent representations and solutions for "active ageing" in public space, 2) it illustrates, be-

yond the symbolic of space (benches as a relaxing place), the symbolic difficulties of "real" participative and multi-stakeholders governance promoted through "age-friendliness" and, 3) explores everyday life practices of "spatial expulsion" of "ageing in public space" for older adults.

4.1. Representation of Space: Public Benches as a Passive Resting Place or as an Active Stop-and-Go Place?

Clearly, the idea of benches as a place to rest has been a highly-visible but apparently invisible aspect of the more-than-often cited guide on AFC (WHO, 2007a). It is replicated for example in the first French guide (Lefebvre & Chapon, 2014; see Figure 1) and occupied a very good position (second) in the associated checklist (WHO, 2007b; see Figure 2).

Figure 1. Cover to *Global Age-Friendly Cities: A Guide* (WHO, 2007a) and Cover to the *Guide Français VADA* (Lefebvre & Chapon, 2014).


World Health Organization

Checklist of Essential Features of Age-friendly Cities

This checklist of essential age-friendly city features is based on the results of the WHO Global Age-Friendly Cities project consultation in 33 cities in 22 countries. The checklist is a tool for a city's self-assessment and a map for charting progress. More detailed checklists of age-friendly city features are to be found in the WHO Global Age-Friendly Cities Guide.

This checklist is intended to be used by individuals and groups interested in making their city more age-friendly. For the checklist to be effective, older people must be involved as full partners. In assessing a city's strengths and deficiencies, older people will describe how the checklist of features matches their own experience of the city's positive characteristics and barriers. They should play a role in suggesting changes and in implementing and monitoring improvements.

Outdoor spaces and buildings

- ☐ Public areas are clean and pleasant.
- ☐ Green spaces and outdoor seating are sufficient in number, well-maintained and safe.
- ☐ Pavements are well-maintained, free of obstructions and reserved for pedestrians.
- ☐ Pavements are non-slip, are wide enough for wheelchairs and have dropped curbs to
- ☐ Services are situated together and are accessible.
- ☐ Special customer service arrangements are provided, such as separate queues or service counters for older people.
- ☐ Buildings are well-signed outside and inside, with sufficient seating and toilets, accessible elevators, ramps, railings and stairs, and non-slip floors.

Figure 2. Checklist (WHO, 2007b).

In gerontology, one of the fathers of activity theory supporting "active ageing" illustrates the need for "role flexibility" for retired people. Interestingly enough, the romantic idea of "sitting on a park bench", as expressed by the covers mentioned, was already there:

> Consider the changes in the role which may be made by a man just before and after age 65 when he was automatically retired from his work….He may spend more time with friends at his club; indeed, he may join a club for this very purpose. He may use a park for the same ends, sitting on a park bench with others in pleasant weather, or lounging in a park building when it is wet or cold. (Havighurst, 1954, p. 310)

New York has been particularly active in promoting the installation of benches. Interestingly, the program defines priority location for bench installation, including classical gerontological sites like hospitals and community centres, but also places of consumption (commercial zones) and public facilities (public libraries). In so doing, benches might not only be considered as a "passive place" to sit and relax but as a "stop and go" object to support active engagement in city life, including access to public transport and, at least in New York city, consumption. The CityBench program is one of the key initiatives of New York city to increase walkability:

> Through a federal grant, the Department of Transportation (DOT) is installing 1,500 attractive and durable benches around the city, particularly near senior centres and housing; hospitals and community health centres; commercial zones and shopping districts; and municipal facilities (e.g., public libraries, schools). Individuals and communities can request a bench in a specific location, and older people report having made new social ties with people who frequent the same benches at the same times….Finally, in response to feedback from older people that bus shelters often lacked seating and felt unsafe, 4,000 new bus shelters have been installed. The new shelters have seating and the walls are transparent, addressing concerns about the old shelters which hid their interiors from view. These shelters are paid for by advertisements projected on their sides. DOT has replaced almost every pre-existing bus shelter and has installed additional bus shelters at locations throughout the five boroughs identified by older people and community leaders. (Goldman, Owusu, Smith, Martens, & Lynch, 2016, p. 178)

Similarly to any AFCC practice, the benches meet a problem. How can we evaluate their uses? How can it contribute to "active and healthy ageing"?

> While some interventions yield tangible results, such as a reduction in senior pedestrian fatalities or increased strength resulting from an exercise program,

> others are not so easily quantified, such as the overall impact of a bench. (Goldman et al., 2016, p. 187)

To consider "public benches" as "assemblage" according to classical ANT, representations of space need to "take place" in maps, graphs, tables, and figures. In AFCC, this could happen with a mapping exercise. Such maps can be used by city planners who organise participative walking methodologies (like in Rennes, case 1, in Appendix) or like in Manchester to grasp the variability of practices (see Section 4.3): "A variety of seating should be installed, based on work with older people, using recommendations from 'Design for Access 2' as a benchmark of good practice" (Barron, 2015, p. 3).

We applied a similar practice (outside of an AFCC program) to prepare ethnographic observation of a large neighbourhood, with a high rate of 60+ inhabitants (the municipality has a higher rate of older inhabitants, 19% of 60–74 years and 11% of 75+ years, in comparison with 14% and 8% in the Department; in the studied neighbourhood, the rate of 60+ increased by 2.3% from 2007 to 2012) in a relatively well-off city close to Grenoble (France). We organise a similar mapping exercise with students. Figures 3 and 4 illustrate a section of this neighbourhood. Even at the neighbourhood level, we can easily observe a very different repartition of benches in public space, sector 1 being largely equipped, while sector 2 is equipped with gathered benches.

From this "mapping exercise", a concentration on benches clearly appears in front of shops, restaurant, and public services (post office and pharmacy); a second concentration of benches is in a small garden, circled by residential building towers. Benches are old and the playground seems abandoned. Such observations raise the question: are benches only made for sitting? What are their symbolic dimensions?

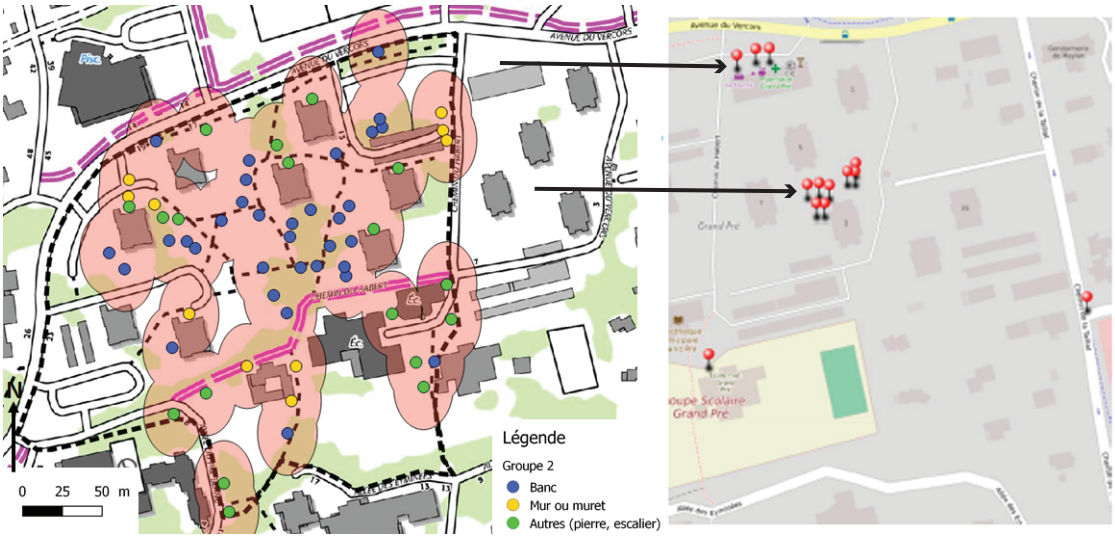


Figure 3. A French neighbourhood with benches, sector 1, on left (blue spots); sector 2, on right, with 2 concentrations of benches (red points).

Figure 4. The picture of playgrounds with benches of sector 2 (picture by student A. Lemarchand).

4.2. Representational Space: Public Benches as a Symbol of Relaxing and Democratic Participation?

Like plenty of illustrations of benches in municipality reports (see Figure 5), or in the cover of the WHO Guide of 2007 (see Figure 1), the benches offer an implicit meaning of relaxing. Figure 5 illustrates 2 people sitting in a sunny environment. Relaxing comes with discussing together, laughing together, when two or more people are presented. However, benches are never illustrated with people sleeping or drinking on them, even if the definition of "active ageing" might be scrutinised and enlarged toward such domains as explored in playing billiards (Lassen, 2015). It is not to say that benches cannot serve such purposes. It is suggested that, through AFCC discourses and representations, benches "should be used" for relaxing and thus "should" exclude other symbols.

Indeed, any conception of benches also reveals a more or less implicit political narrative. For example, armrests might be presented as a useful aspect of benches for older people and other populations to stand up after being seated. It eventually has an esthetical aspect (see Figure 5) which makes the physical environmental welcoming. However, armrests can also be used to assume a symbolic selection of accepted people in public place. The well-known "anti-homeless benches" (see Figure 6) are a clear illustration here. However, the armchairs in Figure 6 can play such an implicit role, excluding homeless persons and supporting people with difficulties to stand up. Such excluding symbols are never illustrated in any AFCC documents we observe and it never officially appears.

A second symbolic dimension inhabits the public benches; however, it is less the symbol of place itself which is discussed. It is the process of bench installation that is symbolic. While a strong participatory perspective is announced in AFCC in general, research has shown that such an urban governance model is rarely effective (Buffel, 2019). The "participative level" is regularly reduced to "consultation" of older people, like in the seminal Vancouver Protocol (WHO, 2007a) and in the first times of AFCC development in France (Lefebvre & Chapon, 2014); through the WHO call for more participative practice from its affiliate members, the French methodology insists officially more on "social participation" of older people not only through consultation but also inclusion of "older citizens" in the steering committee (Giacomini & Lefebvre, 2019) following

Figure 5. Cover of a New York city report supporting NYC AFCC (left; Finkelstein et al., 2008); inside pages of Manchester AFCC (right; Buffel, 2015).

Figure 6. Examples of anti-homeless benches in Stalingrad Station, Paris Metro and bus shelters. Source: the authors.

the Québécois framework (Équipe de Recherche MADA Québec & Carrefour Action Municipale et Famille, 2013).

However, until now, there have been no qualitative data "proving" the level of older people participating in such a steering committee. Researchers supporting such a participative agenda are working with the idea that such participation "changes something". However, there is no proof. On the contrary, the case of "bench discussion" is a pragmatic case to assess the potential or real role of older people.

We first go back to the CityBench program in New York city. While huge numbers of benches have been installed, and while a real participative methodology has been supported to follow older people's choices, it nevertheless appears that only 10% of installations have been produced from this source. Decisions regarding space still appear as a central decision made by planning experts:

> As of the end of May 2013, 536 benches had been installed (173 at bus stops), 68 benches had been installed at the request of senior centres, and more than 50 benches had been placed in locations requested by Aging Improvement Districts, the Age-friendly NYC neighbourhood level community organizing initiative. (New York City Office of the Mayor, 2013, p. 12)

We secondly observe that such governance gives a special place to "intermediaries of active ageing", defined following ANT's inspiration, as people or processes organised to connect ideas and practices, to create awareness among various stakeholders around active ageing (Moulaert & Houioux, 2016). In selected cases of bench installation (see Appendix), municipal employees often appear as key players. They can organise a walking methodology, promote participation by including the voice and presence of older people (like in Figure 8) and, from time to time, elected politicians or Mayors (like in Figure 7). In Rennes (see Appendix), the explanation of the case mentioned that the challenge was to make connections between municipality services, which is a recurrent aspect of inter-sectoral governance of AFCC.

In Kwai Tsing (see Appendix), some older people are described as "the age-friendly ambassadors" who may play such a connecting role when they "should bear these [physical constraints for the location of the benches, such as narrow pavement or the presence of footpaths were challenges during the project] in mind when proposing suitable locations for such works" (WHO, Global Database of Age-friendly Practices, n.d.).

The journey of bench installation for seniors can illustrate the various roles that such professionals (and here we do not consider the "age-friendly ambassador") can play: when playing a role of intermediation, the agents act as facilitators and carefully link all of the players with the seniors on one side and politicians on the other. Drawing on their professional or personal experience, they seek to operationalise the public action desired by the first and decided by the latter. In the different situations encountered in Belgium, the choice of benches is an exemplary case. When the demand for benches is locally emerging, it is administrative staff members who identify the different types of benches. Later in the project, the negotiation of the location of benches is done in collaboration with seniors, based on their lived experience of territorial space and neighbourhood. In the end, the symbolic call for a participative governance of the city, including older people, appear distributed through such intermediaries.

Figure 7. Installation of a bench under the supervision of a Mayor. The promotional document here refers to "A participatory democracy challenge". Source : Lefebvre and Chapon (2014, p. 38).

Figure 8. Public benches tested by inhabitants. Source: Ouest-France (2015).

4.3. Towards the "Spatial Expulsion" of Ageing in Public Space?

This last section explores what has been termed "spatial expulsion" (Wanka et al., 2019). How do benches participate in such a process?

In France, with a group of (6 young) students, we decided to walk around the selected neighbourhood (see Figures 3 and 4) and to sit and wait on benches. Due to bad timing (observations took place in October and November, one on a sunny afternoon, the other in much colder conditions), the number of sitting older people were close to zero. However, we observed a series of (older) people walking into the neighbourhood. Two months later, we went back and had 5 qualitative interviews with older people walking outside. Our experience indicates an apparent contradiction: a lot of benches are situated in the neighbourhood, but there is little information concerning their use.

During the fieldwork, we note 3 elements. First, when meeting a group of 2 youths, they mention: "Yes, older people are everywhere here". "Here" probably means "inside" houses. "Outside" public space seems "older-people-less". At least at this time of the year. Second, even if very few people apparently use the many benches, sitting on benches is a good observatory to note the walks of certain types of people. In particular, due to the residential nature of the neighbourhood, older and younger people and kids walk together, the latter coming back from school; other couples also consist of a very old senior walking with a younger person (his son?). Third, a lady, living in residential home care for autonomous persons, explained to us how she used to walk from her housing towards the shops (around 200/300m far). She clearly identified one bench on her trip and explained that this bench is essential to her because it has armrests Other benches (Figure 9), even if closer from her place and well-situated (with a nice view of the mountains), are not perceived as "useful" because they are not on the way and because of not having armrests Other interviews inform us about the similar "habits" where space produces a relative practice of public space supporting a feeling of "spatial expulsion". In contrast, "home" becomes "the place to live older". And "home" can be disturbed by public place. Indeed, the bench can even become problematic when its use is supported by "unpleasant occupants". In his interview, an older neighbour clearly states:

> Yes, we had a bench down from our building. And a guy was playing the guitar, drinking all night and he was screaming every night! My son wakes up at 4 for work….So, one morning, we were so upset that we removed the bench!

Indeed, benches are not always used by older (or younger) people for resting. In non-participant observations in Vienna, Austria, we also observed a group of older men who were daily visitors. Moreover, they 'monopolised' a set of benches on which major parts of their social life would take place. They were playing chess and drinking beer on those benches, squeezing the empty cans between the wooden beams so the wind wouldn't carry them away. Other older men and women would walk by, greet each other and have a chat, and sometimes the men would offer them a place on their benches, moving closer together to allow sometimes ten people to sit on two benches made for four. Even when the group was not present, 'their' benches would not be used by any other visitors to the park.

So the final question is: what makes people DESIRE to go out and sit in a public space? It interestingly comes back to the original motto of the WHO:

> Functional ability comprises the health-related attributes that enable people *to be and to do what they have reason to value*. It is made up of the intrinsic capacity of the individual, relevant environmental characteristics and the interactions between the individual and these characteristics. (WHO, 2015, p. 28; emphasis added)

Figure 9. Benches in the studied neighbourhood. Source: the authors.

5. Discussion

This article raises the question of what benches tell us about how ageing is framed and shaped by the AFCC discourse and practices. The "assemblage" of public benches is made of: 1) ambivalent representations and solutions for "active ageing" from "passive" sitting and relaxing representation to an alternative "active" stop-and-go scripted practice, 2) it also comes with diverse symbols, from the "resting and relaxing" space to forms of disseminated "social participation" urban governance shared with older people and intermediaries of "active ageing", and 3) finally, it explores forms of "spatial expulsion" from space that could involve older people, directed towards their inner home, but also expel other public from space if they are considered as "unpleasant occupants".

These three dimensions explore the composition of a heterogeneous "assemblage" shaped by the Lefebvrian triptych in a very "top-down" perspective, from central WHO ideas to the local experiences of places. Contradictions arise at different levels and political dimensions of space are salient. For example, the unsolved tension between active/passive ageing is strongly rooted in the "representation of space" with benches. While not completely resolved with the next dimension, the "representational space" and the symbolic space, this nevertheless offers some clarification (clearly related to the "relational" aspect of "assemblage" and the need to connect its components with the external world). Here, the political dimension of benches means that benches are a space for democratic participation regulation: even if we only point to the positions of older people, elected officials like mayors and of "intermediaries of active ageing", this avenue might probably include more actors like private providers of benches and other urban furniture. Lastly, the third dimension explored the "social practice" of Lefebvre. While the power relation to space is essential in Lefebvre's perspective, our first exploration suggests that older people do not deeply benefit from public space and that benches can help to delay their expulsion from it. However, such benches are part of learned habits and practices of space. In terms of urban planning (and to the two other dimensions proposed by Lefebvre), there is no evidence that the installation of new benches could change such practices.

However, as presented in the theoretical section, a praxeological or "doing" approach towards conceptualising space is neither in favour of determinist, functionalist, or top-down approaches, nor is it in favour of completely participatory, bottom-up approaches. This two-sidedness could be even clearer with a last example. Imagine the old woman on the park bench again. What constitutes the park as a park are the planning practices that laid it out in a certain way, including lawns and paths, benches and maybe a playground; it is the practices that built it and maintain its looks and it is the practices, like that of the old lady reading her newspaper, that actualise its existence as a park. That particular park bench where she is sitting continues to be perceived as a park bench because she is sitting there. If it was, for example, used to deposit garbage, it would physically still stay a park bench, but it would start to be perceived as a garbage disposal. Conversely, people are usually more likely to use a bench for sitting than for depositing garbage, using it for skateboard stunts, or to do Yoga. Schatzki (1991) speaks in this regard of spatial action governing factors (e.g., ideas, emotions, knowledge, customs, etc.), practical skills, features of the world (e.g., possible uses of objects by the way they are designed), and space-time packing constraints that are all facilitating practices. The space, thus, shapes practices in the sense that: 1) it limits the possible practice scope, and 2) it influences how practices are carried out. Walking on a slippery road, for example, is performed differently from walking on a firm base; walking on a street without bathrooms is also performed differently than walking the same street with bathrooms. Regarding this last element, while the material world is similar, its political economy varies from a public-supported version in the French model of AFCC (Giacomini & Lefebvre, 2019) to a private-supported version like in the "expert's discourse" in New York city: "Lack of public bathrooms throughout the City was also frequently mentioned; experts suggest providing incentives to local businesses that open their facilities to the public" (Finkelstein et al., 2008, p. 40).

In order to fully complete such a praxeological perspective, the next research steps could focus only on bench use, away from any AFCC program. Another research avenue remains connected with the GNAFCC. It critically discusses the hegemonic "North" vision developed until now by such a network. Such an avenue is explored in the conclusion.

6. Conclusion

This article describes the "assemblage" of "ageing in public space" through the lens of public benches promoted by GNAFCC worldwide. In conclusion, we would insist on the very problematic democratic issue inside AFCC urban governance. Back to the quotation of Borraz and Le Galès (2010), we can agree that "there is a good deal of urban governance going on in European cities but not all the time, not for all the groups, not for all the neighbourhoods and not so much for the peripheries of the city". Excepting the "inner city/periphery" dichotomy on which we do not have sources in AFCC, it is obvious that in each AFCC practice, "not all the time", "not for all the groups" of older people and not in "all the neighbourhoods", do AFCC discourses have a similar impact or a similar aptitude to deeply involve older people in local governance. However, one solution could be to extract ourselves from a pure "North" vision and try to learn from the "Global South".

Today, the majority of actions from GNAFCC are situated in Europe, America, and the Western Pacific. The

Figure 10. People sitting on one's haunches as common practice. Source: Stock Pictures (2014).

absence of any African case has already been discussed as one of the great imbalances between the Global North/South of the Network (Moulaert & Garon, 2016, p. 14); it has only recently been admitted (WHO, 2018). Can we consider how benches might provide a link between Global North and South?

As mentioned above, no African city is yet part of the GNAFCC, but there are some African countries reporting national programmes on age-friendly environments (WHO, 2018). While many African cities still face significant challenges to become age-friendly, the provision of benches doesn't seem to be one of them. While there are urban parks designed with Western ideas in mind, the livelier places are often more informal. In these places, everything can become a makeshift bench or chair—bus stops, spaces in front of little shops or highways. From a "doing" perspective, every material that is used as a bench becomes a bench—may it be just some stones, pieces of wood, a ladder or a car tyre. Such materials might only become benches for a short time and might be used for something else the next minute. Furthermore, we might also observe China and India, where sitting on one's haunches is still common, particularly for the poor population (see Figure 10).

From the strengths of such informalisation arose the term of 'African Urbanism' or 'Southern Urbanism'. Schindler (2017), for example, defines three tendencies of this kind of urbanism(s): 1) persistent disconnect between capital and labour, which gives rise to urban governance regimes geared toward the transformation of territory rather than the 'improvement' of populations, 2) discontinuous, dynamic and contested metabolic configurations of Southern cities, and 3) a strong co-constitution of political economy and materiality. It can be argued to what extent these tendencies are exclusive to "southern" cities and trying to describe "northern" cities through the lens of southern urbanism might be a fruitful endeavour for age-friendly cities as well.

Acknowledgments

This article is based upon work from COST Action CA15122 ROSEnet, supported by COST (European Cooperation in Science and Technology). COST is a funding agency for research and innovation networks. COST Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, careers, and innovation (www.cost.eu).

Conflict of Interests

The authors declare no conflict of interests.

References

Barron, A. (2015). *Age-friendly seating & sense of place*. Manchester: WHO Global Network. Retrieved from https://www.whalleyrange.org/wp-content/uploads/2016/07/Age-friendly-Seating-Report-04.10.2015.pdf

Borraz, O., & Le Galès, P. (2010). Urban governance in Europe: The Government of what? *Métropoles*, *7*. Retrieved from http://journals.openedition.org/metropoles/4297

Buffel, T. (2015). *Researching age-friendly communities. Stories from older people as co-investigators*. Manchester: Manchester University.

Buffel, T. (2019). Older coresearchers exploring age-friendly communities: An "insider" Perspective on the benefits and challenges of peer-research. *The Gerontologist*, *59*(3), 538–548. https://doi.org/10.1093/geront/gnx216

Buffel, T., Phillipson, C., & Scharf, T. (2012). Ageing in urban environments: Developing "age-friendly" cities. *Critical Social Policy*, *32*(4), 597–617.

Butler, J. (2004). *Undoing gender*. New York, NY: Routledge.

de Certeau, M. (1984). *The practice of everyday life*. Berkeley, CA: University of California Press.

Équipe de Recherche MADA Québec, & Carrefour Action Municipale et Famille. (2013). *Guide d'accompagnement pour la réalisation de la démarche Municipalité amie des aînés* [Toolkit for age-friendly municipality methodology]. Québec: Secrétariat aux aînés.

Finkelstein, R., Garcia, A., Netherland, J., & Walker, J. (2008). *Toward an age-friendly New York city: A findings report*. New York, NY: New York Academy of Medicine.

Giacomini, A., & Lefebvre, P.-O. (Eds.). (2019). *Guide français des Villes Amies des Ainés* [French toolkit for age friendly cities]. Paris: La Documentation française.

Goldman, L., Owusu, S., Smith, C., Martens, D., & Lynch, M. (2016). Age-friendly New York city: A Case study. In T. Moulaert & S. Garon (Eds.), *Age-friendly cities in international comparison: Political lessons, scientific avenues and democratic issues* (pp. 171–190). New York, NY: Springer.

Handler, S. (2014). *A research & evaluation framework for age-friendly cities*. London: UK Urban Ageing Consortium.

Havighurst, R. J. (1954). Flexibility and the social roles of the retired. *The American Journal of Sociology*, *59*(4), 309–311.

Houioux, G., & Moulaert, T. (2017). 'Pour et par les aînés': Une méthode participative au service de l'entraide entre aînés. L'exemple de Mons Ville amie des aînés [For and by older people: A participatory methodology towards mutual aids between older people. The example of AFC Mons]. In A. Vandenhooft, S. Carbonnelle, T. Eggerickx, V. Flohimont, & S. Perelman (Eds.), *Vieillissement et entraide: Quelles méthodes pour décrire et en mesurer les enjeux?* [Ageing and mutual aids: Which methods to describe and measure challenges?] (pp. 275–300). Namur: Presses Universitaires de Namur.

Keating, N., Eales, J., & Phillips, J. E. (2013). Age-friendly rural communities: Conceptualizing "best-fit". *Canadian Journal on Aging*, *32*(4), 319–332.

Lassen, A. J. (2015). Keeping disease at arm's length: How older Danish people distance disease through active ageing. *Ageing and Society*, *35*(7), 1364–1383. https://doi.org/10.1017/S0144686X14000245

Lefebvre, H. (1991). *The social production of space*. Oxford: Blackwell.

Lefebvre, P.-O., & Chapon, P.-M. (Eds.). (2014). *Guide français des Villes Amies des Ainés. Bonnes pratiques à l'intention des acteurs locaux* [French toolkit for age-friendly cities. Good practices for stakeholders]. Paris: La Documentation française.

Logan, J., & Molotch, H. (1987). *Urban fortunes. The political economy of place*. Berkeley, CA: The University of California Press.

Löw, M. (2008). The constitution of space: The structuration of spaces through the simultaneity of effect and perception. *European Journal of Social Theory*, *11*(1), 25–49.

Lui, C.-W., Everingham, J.-A., Warburton, J., Cuthill, M., & Bartlett, H. (2009). What makes a community age-friendly: A review of international literature. *Australasian Journal on Ageing*, *28*(3), 116–121.

Manchester City Council. (2009). *Manchester: A great place to grow older. 2010–2002*. Manchester: Joint Health Unit.

Moulaert, T., & Biggs, S. (2013). International and European policy on work and retirement: Reinventing critical perspectives on active ageing and mature subjectivity. *Human Relations*, *1*(66), 23–43. https://doi.org/10.1177/0018726711435180

Moulaert, T., & Garon, S. (Eds.). (2016). *Age-friendly cities in international comparison: Political lessons, scientific avenues, and democratic issues*. New York, NY: Springer.

Moulaert, T., & Houioux, G. (2016). A Belgian case study: Lack of age-friendly cities and communities knowledge and social participation practices in Wallonia. In T. Moulaert & S. Garon (Eds.), *Age-friendly cities and communities in international comparison: Political lessons, scientific avenues, and democratic issues* (pp. 213–228). New York, NY: Springer.

Moulaert, T., Wanka, A., & Drilling, M. (2018). The social production of age, space and exclusion: Towards a more theory-driven understanding of spatial exclusion mechanisms in later life. *Sociální Studia/Social Studies*, *15*(1), 9–23. Retrieved from https://hal.archives-ouvertes.fr/hal-01895265

Müller, M. (2015). Assemblages and actor-networks: Rethinking socio-material power, politics and space. *Geography Compass*, *9*(1), 27–41. https://doi.org/10.1111/gec3.12192

New York City Office of the Mayor. (2013). *59 Initiatives age-friendly NYC: A progress report*. New York, NY: New York City.

OECD. (2015). *Ageing in cities*. Paris: OECD Publishing.

Ouest-France. (2015, May 30). Public benches tested by the inhabitants. *Ouest-France*. Retrieved from https://www.ouest-france.fr/bretagne/rennes-35000/les-bancs-publics-testes-par-les-habitants-3443551

Plouffe, L., Kalache, A., & Voelcker, I. (2016). A critical review of the WHO age-friendly cities methodology and its implementation. In T. Moulaert & S. Garon (Eds.), *Age-friendly cities and communities in international comparison* (pp. 19–36). New York, NY: Springer.

Reckwitz, A. (2012). Affective spaces: A praxeological outlook. *Rethinking History*, *16*(2), 241–258. https://doi.org/10.1080/13642529.2012.681193

São José, J. M. de, Timonen, V., Amado, C. A. F., & Santos, S. P. (2017). A critique of the Active Ageing Index. *Journal of Aging Studies*, *40*, 49–56. https://doi.org/10.1016/j.jaging.2017.01.001

Schatzki, T. R. (1991). Spatial ontology and explanation. *Annals of the Association of American Geographers*, *81*(4), 650–670. https://doi.org/10.1111/j.1467-8306.1991.tb01713.x

Schindler, S. (2017). Towards a paradigm of Southern urbanism. *City*, *21*(1), 47–64. https://doi.org/10.1080/13604813.2016.1263494

Sennett, R. (1999). *The corrosion of character: The personal consequences of work in the new capitalism*. New York, NY: Norton & Company.

Stock Pictures. (2014). Sitting on one's haunches. *Stock Pictures*. Retrieved from http://www.stockpicturesforeveryone.com/2014/07/sitting-on-ones-haunches.html

Stone, C. (1989). *Regime politics, governing Atlanta, 1946–1988*. Lawrence, KS: University Press of Kansas.

United Nations, Population Division. (2018). *World urbanization prospects: The 2018 revision*. New York, NY: United Nations.

Walsh, K., Scharf, T., & Keating, N. (2017). Social exclusion of older persons: A scoping review and conceptual framework. *European Journal of Ageing*, *14*(1), 81–98. https://doi.org/10.1007/s10433-016-0398-8

Wanka, A., Moulaert, T., & Drilling, M. (2019). From environmental stress to spatial expulsion: Rethinking concepts of socio-spatial exclusion in later life. *International Journal of Ageing and Later Life*, *12*(2), 1–27. https://doi.org/10.3384/ijal.1652-8670.18402

Wanka, A., Wiesböck, L., Allex, B., Mayrhuber, E. A.-S., Arnberger, A., Eder, R., . . . Kolland, F. (2018). Everyday discrimination in the neighbourhood: What a 'doing' perspective on age and ethnicity can offer. *Ageing & Society*. https://doi.org/10.1017/S0144686X18000466

WHO. (2007a). *Global age-friendly cities: A guide*. Geneva: WHO.

WHO. (2007b). *Checklist of essential features of age-friendly cities*. Geneva: WHO.

WHO. (2015). *World report on ageing and health*. Geneva: WHO.

WHO. (2018). *The global network for age-friendly cities and communities: Looking back over the last decade, looking forward to the next*. Geneva: WHO.

WHO. (2019). About the global network for age-friendly cities and communities. *World Health Organization*. Retrieved from https://extranet.who.int/agefriendlyworld/who-network

WHO Global Database of Age-friendly Practices. (n.d.). Age-friendly world. *World Health Organization*. Retrieved from https://extranet.who.int/agefriendlyworld/search-afp/?_sfm_afp_start_date=1974+2018&_sfm_population=0+110000000&_sfm_proportion=0+3615

About the Authors

Thibauld Moulaert is Associate Professor at the University Grenoble Alpes, at the School of Political Studies and the PACTE Social Sciences Laboratory. His PhD research critically focuses on active ageing and employment; in his post-doc, it focuses on international discourses on ageing and, more recently, it concerns the relations between older people, citizenship, and environments and places.

Anna Wanka completed her PhD in Sociology in Vienna, 2016, titled *Withdrawal from Public Space—Older Urban Residents and the Social Practices of Spatial (Dis-)Engagement*. Her research foci lie within the sociology of ageing and social gerontology, particularly ageing and education, environmental gerontology and new technologies. Methodologically she specialises in mixed-methods research and holds expertise in both quantitative and qualitative methods. Today, her post-doc project "Doing Retiring—The Social Practices of Transiting into Retirement and the Distribution of Transitional Risks" at Goethe University Frankfurt on the main aims to advance praxeological life-course research.

Appendix

1. Five "Practices" that include benches and seats from the WHO Global Database of Age-friendly Practices (n.d.)

1.1. Testing urban furniture

Status: Evaluated

Location: Rennes, France

Sectors: Urban development

Desired outcome for older people: Be mobile

"In its Actions plan, the Department of Older people of AFC Rennes decided on 29 May 2015 to invite older people and/or handicapped people to test a series of urban furniture in order to consider recommendations for choosing future benches and seats" (WHO Global Database of Age-friendly Practices, n.d.).

1.2. Priority seats

Figure A1. Priority seats at rain-shelters in Kwai Tsing District. Source: WHO Global Database of Age-friendly Practices (n.d.).

Location: Kwai Tsing District Hong Kong, China

Sectors: Urban development

Desired outcome for older people: Be mobile

Challenges: Physical constraints for the location of the benches, such as narrow pavement or the presence of footpaths were challenges during the project. The age-friendly ambassadors should bear these in mind when proposing suitable locations for such works.

From the WHO Global Database of Age-friendly Practices (n.d.) website:

> The Age-Friendly Community Ambassadors (Kwai Tsing) (AFCAs-K&T) carried out a community assessment project on Age-Friendly outdoor environment in Kwai Tsing in 2015. As of May 2016, there are 271 rain-shelters on pathways or footpaths in Kwai Tsing, but only 102 have seats installed. As such, AFCAs-K&T suggested the Kwai Tsing District Council

(K&TDC) to install "priority seats" at rain-shelters on pavement or footpath in Kwai Tsing District. K&TDC endorsed the plan in June 2016 and has earmarked funding in the 2016-17 financial year to undertake 16 projects to retrofit existing rain-shelters to provide seats. K&TDC recognizes the need of older people and will continue to give priorities to similar proposals unless there is physical constraint found. AFCAs-K&T's ultimate aim is to have seats installed at all rain-shelters, allowing older people to travel within the district with sufficient resting places. A public awareness and promotion program on priority seating for older people and people with needs will also be carried out. For example, a Youth Decoration and Design Competition on Priority Seats at Rain-shelters has been carried out in October 2016 to increase public awareness about Age-Friendly Environments.

1.3. Installation of benches

Figure A2. Bench installation in Ottawa. Canadian bench, similar to those presented in WHO Global Database of Age-friendly Practices (n.d.).

Started: 2012

Location: Ottawa, Canada

Desired outcome for older people: Be mobile

Sectors: Urban development

From the WHO Global Database of Age-friendly Practices (n.d.) website:

It can be difficult for many older adults to enjoy walking in Ottawa without somewhere to rest. The availability of seating areas was identified as one of the top urban age-friendly features for older people who participated in the Older Adult Plan consultations in 2011. As part of the Older Adult Plan, the City began installing additional benches on sidewalks in areas of the city with the highest concentrations of seniors (based on demographic data). In order to determine the most suitable locations for benches within these areas, the Infrastructure Services Department mapped amenities such as retirement and long term care residences, hospitals, shopping malls/grocery stores, and parks. For example, placing a bench mid-way between a retirement residence and a shopping mall was considered an optimal choice of location. A list of potential bench locations was then validated with a focus group of older adults. To date, the City has purchased and installed 34 additional benches at various locations across the city with high concentrations of seniors. The bench design meets accessibility standards in terms of height and arm rests. Installing additional seating across the city represents a simple initiative that supports seniors to go out, access services, and participate partake in walking and outdoor activities.

1.4. CityBench Program

Figure A3. CityBench Program inauguration in New York. Source: Sayer (2015).

Status: Evaluated

Location: New York City, United States of America

Desired outcome for older people: Be mobile

Sectors: Urban development

From the WHO Global Database of Age-friendly Practices (n.d.) website:

> The CityBench Program was created to increase the amount of public seating on New York City Streets. The 1500 benches are being installed around the City, particularly at bus stops, retail corridors, and areas with high concentrations of seniors. The installation process of the benches will be complete in 2015 and has already made streets more comfortable for transit pedestrians, especially older adults.

1.5. Age-friendly parks checklist

Location: London, Canada

Desired outcome for older people: Be mobile

Sectors: Urban development

From the WHO Global Database of Age-friendly Practices (n.d.) website:

> In response the community priority of improving the age-friendliness of London parks, the Age Friendly London Network—Outdoor Spaces & Buildings working group partnered with students at Western University to develop an Age Friendly Parks Checklist. The purpose of the checklist is to provide a standardized measurement of the amenities and conditions of London parks so that the working group could make informed recommendations on park upgrades and accessibility improvements. The students reviewed peer-reviewed and grey literature as well as examined Age Friendly Parks Checklists from other communities (most notably the Philadelphia Age Friendly Parks checklist) in order to identify the barriers and facilitators to park usage among older adults. Under the guidance of the Outdoor Spaces & Buildings

working group members, the students also conducted surveys with 89 older adults in London to gather information on park usage frequency and habits. The students and the working group members used this information to create an Age Friendly Parks checklist…with criteria that was specific and appropriate to London parks. The Western University students piloted the checklist by assessing 7 parks in the City. Then the Outdoor Spaces & Buildings working group further refined the checklist and, with the help of city staff, have assessed a total of 377 parks in London to date. The checklist assesses the essential features that make a park accessible, welcoming, safe, and pleasant for an older adult or a person of any age to visit. These features include walkability, seating, access to washrooms, availability of water fountains, park amenities (e.g., presence of picnic tables, walking loops, community garden plots, etc.), signage, safety, and access to the park (i.e., presence of designated accessible parking spaces and pick up/drop off areas, proximity of bus routes, bike racks, etc.).

References

Sayer, J. (2015). Please be seated: New York City expands its CityBench program and grows 'street seat' parklets in Brooklyn. *The Architects Newspaper*. Retrieved from https://archpaper.com/2015/10/nyc-department-transport-receives-1-5-million-expand-citybench-program

WHO Global Database of Age-friendly Practices. (n.d.). Age-friendly world. *World Health Organization*. Retrieved from https://extranet.who.int/agefriendlyworld/search-afp/?_sfm_afp_start_date=1974+2018&_sfm_population=0+110000000&_sfm_proportion=0+3615

COGITATIO

Urban Planning (ISSN: 2183–7635)
2019, Volume 4, Issue 2, Pages 123–133
DOI: 10.17645/up.v4i2.2060

Article

The Development of 'Age Appropriate' Living Environments: Analysis of Two Case Studies from a Social Work Perspective

Carlo Fabian *, Sandra Janett, Tobias Bischoff, Riccardo Pardini, Johanna Leitner and Carlo Knöpfel

Institute for Social Planning, Organisational Change and Urban Development, University of Applied Sciences and Arts Northwestern Switzerland, 4132 Muttenz, Switzerland; E-Mails: carlo.fabian@fhnw.ch (C.F.), sandra.janett@fhnw.ch (S.J.), tobias.bischoff@fhnw.ch (T.B.), riccardo.pardini@fhnw.ch (R.P.), johanna.leitner@fhnw.ch (J.L.), carlo.knoepfel@fhnw.ch (C.K.)

* Corresponding author

Submitted: 11 March 2019 | Accepted: 27 May 2019 | Published: 18 June 2019

Abstract
As the growing number of older people, particularly in urban areas, and changing lifestyles are increasing the importance of continuing to live in the community (ageing in place), studies show that age-related planning of living environments is often shaped by stereotypes, and that the needs of present and future older people are not sufficiently taken into account. In this context, two case studies based on Henri Lefebvre's theory presented in his book *The Production of Space* investigate how 'age-appropriate' living environments are conceived, practiced and lived, and to what extent age-related stereotypes affect these processes. The two cases examined are an intergenerational project to promote physical activity and the development of a new city square. For both cases, interviews and walkthroughs were conducted with experts from various planning disciplines, as well as with current and future older people. The findings show that in planning practice the notions of old age and older people often remain diffuse and, at the same time, older people are often seen as a homogeneous and fragile group. The results indicate that the importance given to neighbourhood in old age can vary greatly. For social work, this implies that older people should be even more involved in the design of their living environments, through participatory processes, in order to better meet the heterogeneity of their needs.

Keywords
ageing; neighbourhood; old age; participation; social work; stereotypes; urban planning

Issue
This article is part of the issue "The City, Aging and Urban Planning", edited by Matthias Drilling (University of Applied Sciences and the Arts Northwestern Switzerland) and Fabian Neuhaus (University of Calgary, Canada).

1. Introduction

1.1. Neighbourhood, Ageing Societies and Stereotypes

There is a clear link between the place and environment of a neighbourhood of older people, and their quality of life and well-being (Petersen & Minnery, 2013). This statement immediately raises the questions of how such places and environments are developed, who plans and designs them and how they are put into practice. The importance of these points is emphasised by Wolf and Mahaffey (2016, p. 59), to whom "design and planning professionals have long been influenced by the belief in physically and spatially deterministic power over people and the environment, a belief that their representations of space become space" (cf. Buse, Nettleton, Martin, & Twigg, 2016). A holistic view of the development of spaces, based on Henri Lefebvre's (1991) theory of the production of space, shows that this is not only a limited view, but that it can also lead to inadequate solutions (see section 1.2). An urban neighbourhood is the central place in daily life (Schnur, 2014, p. 43). The neighbour-

hood needs to be understood as a spatial-physical living environment as well as a social setting for participation and support networks and, as such, as fundamental to dealing with everyday life successfully (Motel-Klingebeil, Wurm, & Tesch-Römer, 2010).

In the coming decades, the population in many Western countries, including Switzerland, will continue to grow. The number of people aged 60 or over, as well as the number of people aged 80 or over, will significantly increase over the years ahead (United Nations, 2015). In particular, the population aged 60 or over is growing faster than all younger age groups (United Nations, 2017b). At the same time, a new group of older people is becoming increasingly differentiated. The lifestyles of people aged 65 and older have changed and are shifting towards increased activity and greater involvement in mainstream life, namely in sports, access to modern technologies, sexuality, education, fashion, etc. (Jopp, Rott, & Oswald, 2008; Santoni et al., 2015). Diversity and heterogeneity increase with age (Kydd, Fleming, Gardner, & Hafford-Letchfield, 2018; Lowsky, Olshansky, Bhattacharya, & Goldman, 2014; Santoni et al., 2015). Due to these rapid changes, older people today in no way represent a blueprint of tomorrow's older people, and linear future scenarios such as planning templates are of limited use. In this context, it is important to note that the number of older people who do not have family networks, and therefore social support through the family, will increase because of changing family structures, longer life expectancy and differentiated lifestyles (Siebel, 2007). Peer groups other than those based on the family will be of particular importance, while the neighbourhood as a reference framework and as a place of everyday life will provide the social arena for the formation of these peer groups.

Regardless of this starting point, the professional discourse around the living environment is implicitly shaped by constructions and perceptions of age and ageing. For example, Peterson and Warburton (2012, p. 60) argue that "business interests sustain stereotypes of older people as either ageless or dependent" and that "spaces designed for older people reinforce historical legacies of separation from the community". On the other hand, Motel-Klingebeil et al. (2010, p. 21) call for an understanding that refutes any stereotype of 'age' and instead promotes a differentiated approach towards the plurality of age. Stereotypes are "schemas that we have for people of various kinds" (Gilovich, Keltner, & Nisbett, 2006, p. 18). Due to stereotypes, we tend to judge people on the basis of a particular criterion (or a few criteria) such as gender, nationality or age, and to attribute characteristics to them (Aronson, Wilson, & Akert, 2014). Such schemas are important in everyday life, but they can also be incorrect and lead to erroneous judgements about people (Gilovich et al., 2006). Research shows that there are many age-related stereotypes—mostly negative ones (Australian Human Rights Commission, 2013). In the context of age and ageing, relevant stereotypes assume that older people have declining competence, are less energetic, motivated or creative, are less productive, are less technologically-savvy, and in general less positive. However, there are also positive stereotypes: older people are seen as more reliable, loyal, stable and dependable. Nonetheless, it is important to consider that "these positive images of ageing may not be sufficient to prevent discrimination based on stereotypes" (Abrams & Swift, 2012, p. 4). Furthermore, stereotypes are internalised in younger years because as a young person one is not affected by them, so one does not reflect on them (Kornadt, Voss, & Rothermund, 2013; Levy, 2009). These internalised stereotypes then influence an individual's own experiences later in life. We can say that age stereotypes are abstract knowledge structures that are shared among the members of a culture (including older people), and which refer to properties, but also to processes and transformations. The consequences of this can become visible on an individual level (e.g., rejection of older people due to their age), as well as on an institutional level (e.g., societal living conditions systematically discriminating against older people; Ayalon & Tesch-Römer, 2018).

1.2. The Production of Space

As we have seen, place and neighbourhood are relevant dimensions for the wellbeing of older people and the opportunity to age in place. Questions arise as to how concepts related to place and neighbourhood are planned and how they are put into practice, who has the power to design neighbourhoods and make decisions, who defines what is age-appropriate and what it should look like. As Day (2008, p. ii) points out, several different types of environmental inequalities can arise. One of these is insufficient access for older people to decision-making processes affecting the local environment (cf. Walsh, Scharf, & Keating, 2017). The reasons why older people are only marginally or not at all included in these processes can be found partly in age-related stereotypes:

> In the two more deprived areas though there was a feeling that older people are overlooked in regeneration and inclusion policies. In these areas, there was also a stronger view that some older people do not feel able to speak up or do not know the channels to go through to be heard. (Day, 2008, p. ii)

Given the wide range of urban development theories available, it is appropriate to take a look at those that explore the question of how certain places and spaces (e.g., neighbourhoods) are produced in relation to perceptions. These theories not only help to identify stereotypes but also to analyse the significance of stereotypes for current urban and neighbourhood development processes. Up to now, there have been very few explicit studies on these issues (Vitman et al., 2013). However, the question of how space is produced has been stud-

ied in the context of critical urban research and theory (Brenner, 2009). In critical urban studies, urban development is understood as being the result of actions and decisions made by different powerful stakeholders (Bourdieu, 1982, 1997; Früchtel, Cyprian, & Budde, 2013). Such spaces are understood not only to be the results of human actions, but also to mirror social relations and to be influenced by the wide scope of human action. Social spaces are thus produced, reproduced and institutionalised in everyday social interactions. In this process, spatial and institutional settings influence the access and participation of individuals and groups (Früchtel et al., 2013; Sennett, 1994).

Henri Lefebvre's theory presented in *The Production of Space* (1991) is a key contribution to the relational spatial development perspective. In his urban theory, Lefebvre states that space is a product of the dynamics between everyday practices and perceptions of people (*spatial practice*), cognitive concepts or theories of space (*representations of space*) and the spatially imaginary (*spaces of representation*). The production of space "is composed of three dialectically mutually co-constituting spheres or facets: conceived space, perceived space, and lived space" (Pierce & Martin, 2015, p. 1282). The three facets interact simultaneously. In the context of ageing, the significance of these three dimensions in producing space should not be underestimated (cf. Moulaert, Wanka, & Drilling, 2018). According to Lefebvre, urban spaces are not places, but rather social relations that are constituted by the interplay of collective action and reciprocal inspiration (Vogelpohl, 2015).

The first factor, the *spatial practice* (or the *perceived space*) of Lefebvre's theory (1991; see also Pierce & Martin, 2015) concerns space as the product of daily practices and perceptions. Spatial practice derives, for example, from non-reflexive daily routines that are affected by the built neighbourhood and infrastructures, all of them located in specific sites. These structures can be physically touched, navigated to or frequented, and give rise to specific individual perceptions and actions. How older people with differing lifestyles and concepts of life perceive environments and other people, and how they act in their environments, is influenced directly and indirectly by age stereotypes that are hidden in spatial practices. For example, the built environment may urge older people to use specific infrastructures that others had planned without taking into account their real needs. We call this effect *materialised stereotypes*.

The second factor is the *representations of space (or the conceived space)*, in other words, concepts and theories of space. This may be understood as a cognitive perspective, created by the knowledge society through its policy makers, architects, planners, developers and administration, as well as their ideas and approaches. Specific examples include spatial planning concepts, plans of settlements or also concepts and ideas as to how an area should be used, by whom and how. All these stakeholders have their own ideas and convictions about what age and ageing means and about which age-related stereotypes influence attitudes, action and design of the neighbourhood (McHugh, 2003; Peterson & Warburton, 2012). For example, neighbourhood renewal processes that include older people only to a limited extent are also quite likely to be biased by the stereotypes of planners and other professionals involved. We term the stereotypes arising in this context *ascribed stereotypes*.

The third factor is the actual lived experience of space itself. *Spaces of representation* or *lived spaces* refer to how a neighbourhood is appropriated and experienced by residents or the people who spend time there (Lefebvre, 1991; see also Pierce & Martin, 2015). Processes of symbolisation, aestheticisation and collective experience lead to stubborn landscapes that often show that planned structures are used in a way other than expected. In this dimension, the aspect of social networks and encounters, as well as relationships between people are important. Internalised age stereotypes (Kornadt & Rothermund, 2012; Kornadt et al., 2013) can shape the perceptions, thoughts and actions of older people in a significant way. In addition, stereotypes shared by the community or in subgroups, contribute to the spaces of representation and lead to more or less participation in social life (e.g., neighbourly help; Vitman, Iecovich, & Alfas, 2013). We call the stereotypes emerging in this context *self-attributed stereotypes*.

1.3. Social Work

From its very beginning in the 19th century, social work has been strongly committed to an urban development that promotes a liveable and inclusive urban environment for all citizens (Klöti, Drilling, & Fabian, 2017):

> Social work is a practice-based profession and an academic discipline that promotes social change and development, social cohesion, and the empowerment and liberation of people. Principles of social justice, human rights, collective responsibility and respect for diversities are central to social work. (International Federation of Social Workers, 2019)

In the context of urban planning, planning-oriented social work is an interesting concept. In this approach, "social work is characterised by a stronger but still critical collaboration of social workers with planning authorities" (Klöti et al., 2017, p. 106). The aims are to represent the people's interests in planning processes or to create possibilities for direct participation of citizens. The concept of planning-oriented social work aims to influence urban planning processes to create a more inclusive and socially just urban environment, which may be also called a socially sustainable urban development (Drilling, 2013). Two principles are the basis of socially sustainable urban development: the consistent and continuous participation of interested and marginalised social groups, and the improvement of access to relevant social

resources and equal opportunities for all citizens (Klöti et al., 2017, p. 107). "Urban planning should therefore be socio-spatially sensitive which means taking into account the life worlds of current or future residents by analysing social inequalities and integrating citizens needs and resources such as for an ageing society" (Drilling & Oehler, 2013, cited in Klöti et al., 2017). Practices in various contexts show that numerous projects that implement participatory planning processes often neglect less affluent or marginalised groups. These groups are less visible, less well represented or not well engaged in society. Participation generally remains a top-down process that tends to reproduce power structures and transform them too little (Fabian & Huber, 2019; Klöti et al., 2017). These statements lead to the question of whether and how the many existing stereotypes of older people have an influence on planning and implementation processes. Do stereotypes reinforce the neglect and exclusion of older people from (political) development processes? Do stereotypes interfere with sustainable urban development as advocated and supported by social work?

2. Research Question, Design and Methods

This research project focuses on the question of how 'age-appropriate' living environments are conceived, practiced and lived and to what extent age-related stereotypes impact on these processes.

A case study approach was adopted for data collection and analysis. According to Johansson (2003, p. 2) a case study "should have a 'case' which is the object of study. The 'case' should be a complex functioning unit, be investigated in its natural context with a multitude of methods, and be contemporary". A case study seeks explanations of social phenomena (Denzin, 2001). In this article, we have brought together the results and findings of both cases in order to provide answers to the research question. Recognising that practice in the context of urban planning can be very diverse, we do not see our conclusions as generalised statements, but rather as a central basis for reflecting on similar development processes and as a basis for further research (see also Flyvbjerg, 2006).

The two cases examined are an intergenerational project to promote physical activity and a new city square. The intergenerational project involved the development, installation and use of equipment designed to encourage older people and children to participate in physical activity together. Five devices were installed in a prominent position in an existing park in a quiet neighbourhood. This was a typical, quite well-resourced residential area, with some businesses and good infrastructure for the residents. The new city square is in a much more densely built and socially more diverse neighbourhood. The square is part of a larger, new settlement with many residential units, businesses and a centre for older people immediately next to it. Both cases were in an urban area in Switzerland and included the neighbourhood area surrounding these starting points.

In a preparatory phase, documents from the two cases were analysed in order to get to know them both from the perspective of the planning bases (e.g., concepts, planning and implementation descriptions) and the relevant actors and potential interview partners (e.g., decision-makers, planning experts, and implementation experts). Furthermore, two world cafés with older people (case 1: n = 6/case 2: n = 12) were organised. World Cafés are structured discussion groups (Brown & Isaacs, 2005). The goal of the world cafés was to sensitise the participants to the research issue and generate potential candidates for the subsequent interviews and commented walks. We therefore collaborated with organisations in the neighbourhood that work with and for older people, and with centres for older people located within the perimeter of our study area. Further, the world cafés served to help us understand the importance of the neighbourhood for the older people.

In a next phase for both cases, semi-structured interviews (Edwards & Holland, 2013) were conducted by three different researchers with experts as well as with older people. A total of 11 experts from the fields of urban planning, landscape architecture, sports and physical activity sciences, product development and social work were interviewed, focusing on stereotypes that exist among these professional actors and how they deal with them in the context of their professional work (E1 to E11 in the results chapter). A total of 10 interviews were conducted with older people, focusing on how older people live in their neighbourhoods and how they perceive the built environment. A distinction was made between older people aged 70+ (Codes 70+/x) and older people aged 50 to 60 (codes 50–60/x). In order to better differentiate between both age groups, we use the transition-cohorts of 60 to 70 as a buffer, which enables the 50 to 60-year-old and 70+-year-old age groups to be more clearly delimited in the target groups to be interviewed. As far as possible, the interviews were complemented with commented walks (Thibaud, 2013) which focused on spatial aspects of 'age-appropriate' planning. All the interviews and commented walks were conducted in Swiss German or German. They were audio-recorded and then transcribed literally. For the older people, the conditions for joining the study were their readiness and ability to take part in an interview as well as a short walk through the neighbourhood. All persons involved were informed about the research process. Oral consent was obtained to conduct the interviews and to use the data for the research project in anonymous form.

Following a reflexive, grounded theory approach, the data was analysed in an iterative process, moving back and forth between initial and focused coding, memo-writing and comparing data, thereby developing, exploring and connecting ideas about the codes (Breuer, 2010; Charmaz, 2005). In this process, Lefebvre's theory of the production of space was used as a sensitising concept (Blumer, 1954) to guide our analysis. ATLAS.ti was used to structure and analyse the data. Near the end of the re-

search process, two reflexive workshops with older people and planners (case 1: 2 older people, 2 experts/case 2: 4 older people, 4 experts) were held in order to validate and discuss interpretations.

3. Results

In this section, we will explore, in a first part (section 3.1) how spaces are practiced and lived by the older people and to what extent age-related stereotypes impact on these processes. In a second part (section 3.2), we will focus on the conceived space from the point of view of the experts, explore the limitations of age-appropriateness in an urban context and present a few findings about participation. The two cases in this study are combined in this section, bringing the results together as there are no notable differences with regard to the question raised in this article. Furthermore, results show that the commented walks served as a supplement to the interviews, and some of the points were specified in greater detail or explained using examples. The data from the interviews and commented walks thus flow together in the results section.

3.1. From the Point of View of Older People

3.1.1. Everyday Practices and Spatial Practices

The people interviewed from the 70+ group described a few relatively similar central forms of everyday practices in the neighbourhood. A frequent practice is walking in the neighbourhood, which is also associated with sitting down and even reading. Walking regularly in this way is described by some as a form of sporting activity. On the other hand, walking and sitting down is sometimes linked with observing changes in the neighbourhood and a form of 'being involved'. 'Being involved' means that older people feel they are part of life, of society, or of what is going on. On several occasions, older people reported it as positive if a lot was going on in the neighbourhood, for example, if many children were playing there. Some grandparents described how they visited the playgrounds in the neighbourhood with their grandchildren. In addition, drinking coffee, eating out and attending appointments and events in the neighbourhood were often mentioned. The importance of 'nice cafés' was mentioned. All these activities generally have an important social function in the sense of encounter and exchange—they express a social and spatial practice, according to Lefebvre. The importance of being able to shop near home was mentioned by some, while for one person, being able to use public transport to shop elsewhere in the city was more important. Some people described the neighbourhood almost exclusively as an 'intermediate space' on the way to other places, as a space to be crossed.

There were no fundamental differences in everyday practices in the neighbourhood as described by people between 50 to 60 and those 70+. The exception is the fact that the daily practice of the 50 to 60-year olds is sometimes strongly characterised by their job, and therefore the usage of the neighbourhood is more often limited to off-peak times. Social contact in the neighbourhood was also considered to be of minor importance in some cases, as people primarily feel involved and engaged through their job. With regard to the imagined everyday life in the neighbourhood in 10 to 20 years, several interviewees mentioned that it is extremely difficult to think so far ahead. Nevertheless, some expressed the idea that they would go to a café more often to maintain contact. In what follows, we will be writing about the older people in general, without differentiating between the two age groups.

3.1.2. Meaning of the Neighbourhood: The Lived Space

The meaning attributed to the neighbourhood as the experienced or lived space in the descriptions of the older people interviewed is framed by an inner and an outer delimitation. Everyday practice partly takes place in a relatively closed setting within the neighbourhood (inner delimitation). This is particularly pronounced among residents of centres for older people, where there are many networks and a lot of social exchange between the residents. These are made possible or organised via in-house cafés or events in the centre and can thus be maintained. In other forms of housing, social exchange mainly takes place in people's individual place of residence. On the other hand—in the outer delimitation—many respondents are mobile and use public transport to move around the entire city or beyond. There is no preference for or restriction to concentrating on the home or the immediate environment.

In spite of these delimitations, as mentioned above, the neighbourhood is often seen as an important place for recreation, allowing walks and outdoor activities, as well as a place for 'being involved', allowing residents to get out of their immediate surroundings and get involved in social exchange. With regard to 'being involved', one interviewee said that people used to say that older people should have access to 'nice and green' spaces (70+/4). That is only partially true, as she explained in the following:

> But they don't want to go out into the green space; they want to be able to see what the baker is doing today….Yes, and connections to the past, whether it is as it was, or what has changed. Yes of course, it is more modern, but earlier it was more comfortable. Social participation in everyday life, the closeness to everyday life. (70+/4)

On the other hand, there are also people who see the outdoor space more as a space for individual relaxation, when fewer people or families with children are on the move: "I prefer to go to the park when it is quiet, at my

age. I like to sit on a bench or just walk around, just taking it as it comes" (70+/5). In general, however, people reported that the need for social exchange is more pronounced in old age, which is also linked to retirement.

As soon as physical problems limit the use of public transport, the neighbourhood becomes increasingly important. Referring to her walks in the neighbourhood, one interviewee said that she was grateful that care workers took older people out into the fresh air: "And the neighbourhood itself is very important for this. Because taking wheelchairs onto the tram is nevertheless a big task" (70+/4).

3.1.3. Stereotypes and Age Images

Older people also have age-related stereotypes and age images, which relate to socio-spatial aspects. In the interviews and walkthroughs, older people often talked about other older people in general, and not about themselves, even though they were asked about their personal experience. They often made generalising statements about the older population because, as one older person said, "I'm probably not the classic older person, because I'll work until I drop" (70+/7). It is also interesting that the term 'age-appropriate', in relation to spatial design, is strongly rejected by some older people. Further statements demonstrating age-related stereotypes were that a certain park "is good for children, because of the animals, but for us older people it is a bit too far away" (70+/3). Another person said when she was talking about benches: "They're all too low; we don't sit down because we can't get up anymore" (70+/1).

3.2. From the Point of View of the Experts

3.2.1. Older People, Stereotypes and the Planning

In the context of 'age-appropriate' planning and development projects, the experts interviewed often described older people as a homogeneous and fragile group. Although different needs and requirements are attributed to older people with regard to the neighbourhood, these differentiated age images are seldom included in the planning and development of 'age-appropriate' living spaces. As soon as planning and development are involved, this contradiction between one-sided, stereotypical and differentiated age images is resolved in favour of uniform planning. Wheelchair accessibility in particular is considered to be of central importance. For example, "playground equipment...is being further developed with regard to wheelchair accessibility. Precisely because the playground is also planned for senior citizens" (E1). This view of older people as a fragile group finds its way into planning-related measures. It is about maintaining and restoring the physical health of older people: "Because you know about balance and strength, you can influence fall prevention in this sense, with balance and strength training" (E6). Furthermore, there are efforts on the part of planners to promote an active lifestyle among older people. The aim is to reach them through play and "trick" (E6) them into movement through physical activity and interaction with children.

In general, it can be said that experts consider generational exchange to be of great importance, specifically between young and old: "The interaction between old and young. It is explicitly play equipment, where the younger park visitor or play visitor is partly dependent on the older one" (E1). This generational exchange is intended to not only promote physical activity among older people, but also facilitate encounters and social contact.

It appears that age is often associated with functional limitations. In particular, topics such as balance problems, walking difficulties and health issues are often mentioned in connection with the idea of old age and ageing. These age-related stereotypes in the form of ascribed needs materialise in age-related aspects of planning and the subsequent realisation of construction projects. Here the existence of (age-appropriate) seating is considered as one of the most important planning elements for the planning and development of age-appropriate living spaces: "And then we also have situations again and again...where one can sit down, where one can rest. Sometimes I have the feeling that older people already feel their needs are quite satisfied" (E1). The choice of the model and the location of seats is usually based on criteria such as seat height: "The seating options vary in height, rising to 58cm so that…older people can also sit down without sinking into them" (E7). Armrests and the selection of sun-protected places and "places where things happen" (E7) are almost as important.

The materialisation of age-related stereotypes can also be found in the following planning element—the handrail: "Okay, what does the older person need? Above all, they need handrails. A young mum doesn't need a handrail to hold herself" (E6). In one case, the handrail is understood as the central planning moment for the perception of safety of older people: "And for older people, safety is perhaps even more important. That's probably why these holding options are so important" (E3). According to experts, the existence of infrastructure facilities, such as toilets, restaurants, shopping facilities, etc., and the planning of simple path systems represent further aspects of planning relevant to the planning and development of 'age-appropriate' living spaces:

> If you look at dementia gardens in this way, then it is always the case that dementia gardens are designed in such a way that you always find your way back to the same point. So mostly it is a cycle, so when I start and go straight ahead, I usually come back to the same point. It's such a classic dementia garden theme that people can't get lost. (E7)

In planning processes, however, older people are not only seen and characterised as people with physical lim-

itations, but sometimes also as people "who are somewhat older, who also tend towards dementia" (E7).

3.2.2. Limitations of Age-Appropriateness

Experts face various challenges in the planning and development of 'age-appropriate' living spaces. Standards and legal guidelines such as the Disability Equality Act (Eidgenossenschaft, 2002), the Tree Protection Act (Kanton Basel-Stadt, 1980), etc., significantly restrict the scope for action of experts:

> Then we have the Tree Protection Act here…and then you have to make sure that the equipment does not compete with the interests of tree protection. In addition, at the very end, it was of course the same with all the safety issues…and also keeping the overall budget somewhere within the specified limits. (E1)

It is not uncommon, however, for conflicts of interest to arise between legal guidelines and standards, and age-appropriate planning aspects: "The need for safety on the part of park visitors is already higher than the need for intimacy on the part of older people" (E1).

Although in both case studies older people are described as homogeneous and fragile, and rarely as a diverse group, the notion of age usually remains diffuse. This is because older people are referred to by a variety of terms such as pensioners, (active) seniors, the older, the very old, older people in retirement and nursing homes, etc. This diversity of terms can primarily be explained by the fact that experts take the surrounding residential environment or the immediate neighbourhood population into account when planning and developing neighbourhood and urban development projects. For example, residents of retirement and nursing homes are often regarded as a relevant user group: "So the…care home was very important to us, because they are right on the site and use the site quite a lot" (E7). The term 'age-appropriate' also remains diffuse. On the one hand, places that have certain planning elements are described as 'age-appropriate'. On the other hand, characteristics such as wheelchair-accessible, obstacle-free, barrier-free, paved, easy to understand, quiet, safe, green, planted, shady, etc., are subsumed under 'age-appropriate': "The strictest requirements are the ones we have for accessible constructions for disabled people. This has nothing to do with age. There we have strict guidelines, which concern fairness to disabled people, and if you keep to these, you are, like, automatically also age-friendly" (E7).

3.2.3. Participation

In both cases under study older people were only marginally included in the development processes. Some of the experts' ideas or stereotypes regarding older people play a central role: "I never had the feeling that they wanted to have a big say in things". This expert also said: "If you let too many people have a say, nothing actually comes out in the end...because everyone blocks everyone else" (E4). Another expert said:

> One could of course have involved even more older people, but that is of course still difficult, probably to find the right people, who also have the ability—I don't know, [and] I mean, an older person sees it differently, but you also have to have the person who can really bring it to the point. (E2)

Yet another expert said: "Yes, we had an event where we presented the project....When you talk to older people, you also have to transmit relatively simple messages, let's say, so that you are understood" (E7).

4. Conclusions

Thus far, based on the three factors of Henri Lefebvre's (1991) theory, we have presented some results arising from the perspectives of the experts and the older people. Below, the three kinds of stereotypes that we have linked to Lefebvre's three factors are discussed in order to then explore the concept of participation. Finally, some recommendations for social work are outlined.

Although the results mainly show age-related stereotypes and generalised images of older people (ascribed stereotypes), it must be said that some more differentiated age images were also presented in the interviews. Nevertheless, stereotypes predominate. Due to the complexity of circumstances in the context of spatial and urban development, certain challenges are on the rise: firstly, urban development must find solutions that are suitable for everyone, for all residents and citizens. In addition, various laws and standards restrict the range of possibilities for development. We have learned that simplifying stereotypes is a good way of finding those solutions that are valid for a broad group (cf. Buse et al., 2016). This does not mean that these experts are trying to make their work easier. Stereotypes, however, may block the planners' view of the diverse needs, resources, opportunities and interests other people have.

The materialised stereotypes are embodied in the spatial practice. The solutions developed, and especially the processes involved in development, are shaped by stereotypes—but not only by these. In particular, one of the two cases under study also incorporated scientific evidence. As Day (2008, p. 47) said: "Participants emphasised that older people often have a wealth of experience, knowledge and skills that could be directly useful in many spheres, but that this resource was overlooked". One finding is that experts sometimes lack sufficient knowledge about participation and methodological skills. Moreover, there is also a lack of courage and trust that participatory approaches are appropriate and can lead to better solutions.

Older people perceive and judge the world and their environment from a very subjective point of view. How-

ever, age is not the only decisive factor in how the world is perceived. Rather, biographical, familial, social, and health and mobility-related aspects also play a major role, together with many more. Accessibility to public space, shopping, etc., can be improved, e.g., by avoiding an obstacle: as long as public transport can be used autonomously, it can also be used to avoid 'obstacles' in the immediate living environment. Therefore, great importance is placed on the accessibility and usability of public transport. We have learned that self-attributed stereotypes of older people thus play a role. The influence of these stereotypes on one's own behaviour or on quality of life is in the end rather subjective. It is important to understand that different older people may develop individual coping strategies for dealing with these stereotypes. This also demonstrates that solutions that are intended to be equally good and of equal use for all (older) people are practically impossible.

In the context of age-appropriate developments and solutions, participation is a central concept. On the one hand, there are various guiding documents that emphasise participation in social and political aspects of life, among other things, and which address the inclusion of people, including the Universal Declaration of Human Rights (United Nations, 1948), Principles for Older Persons (United Nations, 1991), Age-Friendly City (World Health Organisation, 2007) and New Urban Agenda (United Nations, 2017a). In these documents, participation is defined as having the opportunity to participate or to be involved in social and political activities. However, participation goes beyond that. Participation involves a theoretical concept, social values and working methods. Central elements are: information, collaboration (co-development, co-creation), taking part in decisions (design, realisation) and co-responsibility (Fabian & Huber, 2019). The stereotypes related to older people, which also exist in the field of spatial and urban planning, influence the willingness of decision-makers to see participation as a possibility and as a valid approach, and to enable or permit it accordingly.

The claim that older people should be involved in the planning and design of their living environment is not a new one. Buffel, Philippson and Scharf (2012, p. 609) emphasise that the active participation of older people is essential: "Involving older people in the development and maintenance of age-friendly environments respects a crucial goal for social policy. Achieving this…will require a radical shift from producing urban environments for people to developing neighbourhoods with and by older people" (cf. World Health Organization, 2016). The question is, how can we advocate and promote the participation of older people in a planning culture and practice in view of the given practice and stereotypes that form a barrier here?

Social work as a profession, and in particular planning-oriented social work, has the goal of representing people's interests in planning processes or creating possibilities for the direct participation of citizens. A whole range of tasks exists in the context of the questions explored above. First, social work has the task of pointing out the realities outlined, advocating differentiated ways of looking at things, focusing on older people not only in terms of their problems and limitations, but above all, in terms of their potentials and resources. Social work has the task of promoting comprehensive and equitable participation in order to better address the heterogeneity of the needs of older people. As a consequence of some of the above-mentioned stereotypes, older people are sometimes seen or treated as weak people. Even if they have certain rights, as shown above, stereotypes can be a big barrier to being perceived as full members of society. The consequences are sometimes ageist, and older people are excluded from society. Second, social work should promote discussion and actively participate in how urban planning can best be implemented for people. The goal must be the improvement of quality of life and inclusion of the older people and all residents. This can only be achieved together with the people. An urban planning approach must take into account the constant changes in the city and society and needs a more flexible concept for 'all generations'. This corresponds in certain ways to the lived spaces of Lefebvre (cf. Biggs & Carr, 2016). Third, with regard to age-related stereotypes, social work should engage in educating and sensitising planners and other professionals. This work is part of the social worker's role as advocate for marginalised groups. In addition, social work must also engage in the current intensive international discourse on age-related discrimination. This discourse takes place in many fields of action, but only marginally in the field of urban planning (cf. Ayalon & Tesch-Römer, 2018). Fourth, this study shows that there are major gaps in research. We have observed that stereotypes are common. In addition, we have first indications that they have an influence on planning and implementation processes. Important research questions arise, for instance: What influence do stereotypes have on planning and implementation processes? Are these influences negative? And if so, for whom or for what? Are there groups of older people who are more affected than others? Are exclusion processes observable? In the complex structure of urban planning, is it possible to empirically establish a structure of effects that shows how stereotypes work and which moderating factors are involved? Can planning processes be improved through information and sensitisation of experts and decision-makers in the sense of integrative and fair consultation? As our population ages, these questions will have increasing importance for the field of social work and beyond. The complexity of the field of urban planning, but also the questions raised here, show that research in this field must also be interdisciplinary.

Acknowledgments

This research project was developed from active participation in the cost action "IS1402, Ageism—A Multi-

National, Interdisciplinary Perspective" and was funded by the Swiss State Secretariat for Education, and the Swiss National Science Foundation (2016–2018).

Conflict of Interests

The authors declare no conflict of interests.

References

Abrams, D., & Swift, H. J. (2012). Ageism doesn't work. *Public Policy & Aging Report*, *22*(3), 3–8.

Aronson, E., Wilson, T. D., & Akert, R. M. (2014). *Social psychology* (8th ed.). Harlow: Pearson.

Australian Human Rights Commission. (2013). *Fact or fiction? Stereotypes of older Australians*. Sydney: urbis.

Ayalon, L., & Tesch-Römer, C. (2018). *Contemporary perspectives on ageism*. Cham: SpringerOpen.

Biggs, S., & Carr, A. (2016). Age friendlyness, childhood, and dementia: Toward generationally intelligent enviroments. In T. Mouleart & S. Garon (Eds.), *Age-friendly cities and communities in international comparison* (pp. 259–276). New York, NY: Springer.

Blumer, H. (1954). What is wrong with soical theory? *American Sociological Association*, *19*(1), 3–10.

Bourdieu, P. (1982). *Die feinen Unterschiede: Kritik der gesellschaftlichen Urteilskraft* [Distinction: A social critique of the judgement of taste]. Frankfurt: Suhrkamp.

Bourdieu, P. (1997). Ortseffekte [Site effects]. In P. Bourdieu (Ed.), *Das Elend der Welt* [The weight of the world] (pp. 117–123). Konstanz: UVK Verlagsgesellschaft GmbH.

Brenner, N. (2009). What is critical urban theory? *City*, *13*(2/3), 198–207.

Breuer, F. (2010). *Reflexive grounded theory* (2nd ed.). Wiesbaden: VS Verlag.

Brown, J., & Isaacs, D. (2005). *The world café: Shaping our futures through conversations that matter*. San Francisco, CA: Berret-Koehler.

Buffel, T., Philippson, C., & Scharf, T. (2012). Ageing in urban environments: Developing 'age-friendly' cities. *Critical Social Policy*, *32*(4), 597–617.

Buse, C., Nettleton, S., Martin, D., & Twigg, J. (2016). Imagined bodies: Architects and their constructions of later life. *Ageing & Society*, *37*(7), 1–23.

Charmaz, K. (2005). *Constructing grounded theory*. London: SAGE.

Day, R. (2008). *Local urban environments and the well-being of older people*. Birmingham: University of Birmingham.

Denzin, N. K. (2001). *Interpretative interactionism*. London: Sage.

Drilling, M. (2013). Planning sustainable cities: Why environmental policy needs social policy. In I. Wallimann (Ed.), *Environmental policy is social policy: Social policy is environmental policy: Toward sustainability policy* (pp. 103–119). New York, NY: Springer.

Drilling, M., & Oehler, P. (2013). Soziale Arbeit und Stadtentwicklung aus einer planungsbezogenen Perspektive [Social work and urban development from a planning perspective]. In M. Drilling & P. Oehler (Eds.), *Soziale Arbeit und Stadtentwicklung: Forschungsperspektiven, Handlungsfelder, Herausforderungen* [Social work and urban development: Research perspectives, fields of action, challenges] (pp. 87–109). Wiesbaden: Springer VS.

Edwards, R., & Holland, J. (2013). *What is qualitative interviewing?* London: Bloomsbury.

Eidgenossenschaft, S. (2002). Bundesgesetz über die Beseitigung von Benachteiligungen von Menschen mit Behinderungen 151.3 [Federal law on equal rights of people with disabilities]. *Das Portal der Schweizer Regierung*. Retrieved from https://www.admin.ch/opc/de/classified-compilation/20002658/index.html

Fabian, C., & Huber, T. (2019). Participating in creating open spaces with and for children: A kind of participatory action research? In I. R. Berson, M. J. Berson, & C. Gray (Eds.), *Participatory methodologies to elevate children's voice and agency* (pp. 153–179). Charlotte, NC: Information Age Publishing IAP.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245.

Früchtel, F., Cyprian, G., & Budde, W. (2013). *Sozialer Raum und Soziale Arbeit. Theoretische Grundlagen* [Social space and social work. Theoreticals]. Wiesbaden: Springer Verlag.

Gilovich, T., Keltner, D., & Nisbett, R. E. (2006). *Social psychology*. New York, NY: Norton.

International Federation of Social Workers. (2019). Global definition of social work. *International Federation of Social Workers*. Retrieved from https://www.ifsw.org/what-is-social-work/global-definition-of-social-work

Johansson, R. (2003). *Case study methodology*. Paper presented at the Methodologies in Housing Research International Conference in Stockholm. Retrieved from http://www.psyking.net/HTMLobj-3839/Case_Study_Methodology-_Rolf_Johansson_ver_2.pdf

Jopp, D., Rott, C., & Oswald, F. (2008). Valuation of life in old and very old age: The role of sociodemographic, social, and health resources for positive adaptation. *The Gerontologist*, *48*(5), 646–658. https://doi.org/10.1093/geront/48.5.646

Kanton Basel-Stadt. (1980). Baumschutzgesetz [Tree Protection Act]. *Gesetzessammlung*. Retrieved from https://www.gesetzessammlung.bs.ch/frontend/versions/4030/download_pdf_file

Klöti, T., Drilling, M., & Fabian, C. (2017). A social work perspective on socio-technological innovations in urban planning and development. In C. Certomà, M. Dyer, L. Pocatilu, & F. Rizzi (Eds.), *Citizen empowerment and innovation in the data-rich city* (pp. 105–122). New York, NY: Springer.

Kornadt, A. E., & Rothermund, K. (2012). Internalization of age stereotypes into the self-concept via fu-

ture self-views: A general model and domain-specific differences. *Psychology and Aging*, *27*(1), 164–172. https://doi.org/10.1037/a0025110

Kornadt, A. E., Voss, P., & Rothermund, K. (2013). Multiple standards of aging: Gender-specific age stereotypes in different life domains. *European Journal of Ageing*, *10*, 335–344. https://doi.org/10.1007/s10433-013-0281-9

Kydd, A., Fleming, A., Gardner, S., & Hafford-Letchfield, T. (2018). Ageism in the third age. In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary perspectives on ageism* (pp. 115–130). Berlin: SpringerOpen.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Levy, B. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in Psychological Science*, *18*(6), 332–336.

Lowsky, D. J., Olshansky, S. J., Bhattacharya, J., & Goldman, D. P. (2014). Heterogeneity in healthy aging. *Journals of Gerontology*, *69*(6), 640–649.

McHugh, K. E. (2003). Three faces of ageism: Society, image and place. *Ageing & Society*, *23*, 165–185.

Motel-Klingebeil, A., Wurm, S., & Tesch-Römer, C. (Eds.). (2010). *Altern im Wandel. Befunde des Deutschen Alterssurveys (deas)* [Ageing in change. Findings of the german ageing survey]. Stuttgart: Kohlhammer.

Moulaert, T., Wanka, A., & Drilling, M. (2018). The social production of age, space and exclusion: Towards a more theory-driven understanding of spatial exclusion mechanisms in later life. *Social Studies*, *1*, 9–23.

Petersen, M., & Minnery, J. (2013). Understanding daily life of older people in a residential complex: The contribution of Lefebvre's social space. *Housing Studies*, *28*(6), 822–844.

Peterson, M., & Warburton, J. (2012). Residential complexes in Queensland, Australia: A space of segregation and ageism? *Ageing & Society*, *12*, 60–84.

Pierce, J., & Martin, D. G. (2015). Placing Lefebvre. *Antipode*, *47*(5), 1279–1299.

Santoni, G., Angleman, S., Welmer, A.-K., Mangialasche, F., Marengoni, A., & Fratiglioni, L. (2015). Age-related variation in health status after age 60. *PLoS ONE*, *10*(3), 1–10. https://doi.org/10.1371/journal.pone.0120077

Schnur, O. (2014). Quartiersforschung im Überblick: Konzepte, Definitionen und aktuelle Perspektiven [Overview of neighbourhood research: Concepts, definitions and current perspectives]. In O. Schnur (Ed.), *Quartiersforschung* [Neighbourhood research] (pp. 21–56). Wiesbaden: VS Verlag für Sozialwissenschaften.

Sennett, R. (1994). *Flesch and stone. The body and the city in Western civilization*. London: Faber and Faber.

Siebel, W. (2007). Neue Lebensbedingungen in der Stadt [New living conditions in the city]. In Bundesministerium für Verkehr Bau und Stadtentwicklung & Bundesamt für Bauwesen und Raumordnung (Eds.), *Stadtquartiere für Jung und Alt. Das ExWoSt-Forschungsfeld "Innovationen für familien- und altengerechte Stadtquartiere"* [Urban quarters for young and old. The ExWoSt research field "Innovations for family- and age-appropriate urban neighbourhoods"] (pp. 12–21). Berlin: Bonn.

Thibaud, J.-P. (2013). Commented city walks. *Wi: Journal of Mobile Culture*, *7*(1). Retrieved from http://wi.mobilities.ca/commented-city-walks

United Nations. (1948). *Universal declaration of human rights*. Geneva: United Nations.

United Nations. (1991). *Principles for older persons*. Geneva: United Nations.

United Nations. (2015). *World population ageing*. New York, NY: United Nations.

United Nations. (2017a). *New urban agenda*. New York, NY: United Nations.

United Nations. (2017b). *World population prospects. Key findings & advanced tables*. New York, NY: United Nations.

Vitman, A., Iecovich, E., & Alfas, N. (2013). Ageism and social integration of older adults in their neighborhoods in Israel. *The Gerontologist*, *54*(2), 177–189.

Vogelpohl, A. (2015). Die Begriffe Stadt und Urbanisierung bei Henri Lefebvre. Eine Inspiration für Recht auf Stadt-bewegungen heute [Henri Lefebvre's definitions of city and urbanisation. An inspiration for the right to urban movement today]. *dérive. Zeitschrift für Stadtforschung*, *60*, 4–8.

Walsh, K., Scharf, T., & Keating, N. (2017). Social exclusion of older persons: A scoping review and conceptual framework. *European Journal of Ageing*, *14*(1), 81–98.

Wolf, G., & Mahaffey, N. (2016). Designing difference: Co-production of spaces of potentiality. *Urban Planning*, *1*(1), 59–67.

World Health Organisation. (2007). *Global age-friendly cities: A guide*. Geneva: WHO.

World Health Organization. (2016). *Creating age-friendly environments in Europe*. Copenhagen: World Health Organization, Regional Office for Europe.

About the Authors

Carlo Fabian is a social and health psychologist and a coach and organizational developer. He is Professor (lic.phil.) at the Institute of Social Planning, Organisational Change and Urban Development at the School of Social Work, University of Applied Sciences Northwestern Switzerland. His research and teaching focus is on urban development, neighbourhood and health, health promotion and prevention, and evaluation research.

Sandra Janett, MA in Social Work, works as a Research Associate at the Institute of Social Planning, Organisational Change and Urban Development at the School of Social Work, University of Applied Sciences Northwestern Switzerland. Her research focuses on urban neighbourhood, urban development and ageing in place.

Tobias Bischoff, MA, works as a Research Associate at the Institute of Social Planning, Organisational Change and Urban Development at the School of Social Work, University of Applied Sciences Northwestern Switzerland. His research interests include poverty, homelessness and inclusive urban development.

Riccardo Pardini, MA, sociologist, is a Research Associate at the Institute for Social Planning, Organisational Change and Urban Development at the University of Applied Sciences Northwestern Switzerland. His teaching and research focus is on ageing society and social security, changes in the world of work and digitalisation, precariousness and unemployment.

Johanna Leitner, MA, sociologist, is a Research Associate at the Institute for Social Planning, Organisational Change and Urban Development at the University of Applied Sciences Northwestern Switzerland. Her main areas of work include social change and poverty policy developments, age, poverty and social security, social structure, spatial sociology and gender research.

Carlo Knöpfel studied economics at the University of Basel. Since June 2012, he has held a professorship for social policy and social work at the Institute of Social Planning, Organisational Change and Urban Development at the School of Social Work, University of Applied Sciences Northwestern Switzerland. His focus is on social change and social security, issues of poverty, unemployment and old age, and the contribution of civil society to professional and social integration.

Urban Planning (ISSN: 2183-7635)

Urban Planning is an international peer-reviewed open access journal of urban studies aimed at advancing understandings and ideas of humankind's habitats.

www.cogitatiopress.com/urbanplanning

COGITATIO