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High streets, ageing and well-being

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ABSTRACT

Despite their perceived decline, local high streets in the UK remain valuable central and well-connected places that can foster ageing in place, yet their potential to sustain well-being in old age has been overlooked. Using qualitative methods, the paper explores what features of local high streets support older people's well-being in three local town centres in Edinburgh, Scotland. The findings show there are three main domains of local high streets' public realm that enable older adults' well-being, namely the streetscape, the spatial organization and accessibility of amenities and services, and the provision of housing that can foster town centre living.

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High streets; public realm; ageing; older people; well-being; health

Introduction

In the UK, high streets are a prominent feature of the urban environment in which people age. They have garnered attention in studies and policy reports regarding their perceived decline and regeneration (Ministry of Housing, Communities and Local Government 2021; Sparks 2021a). However, despite discussions on their potential to support ageing and contribute to older people's well-being (Parkinson, Hunter, and Barac 2013; Phillips et al. 2021), there has been no exploration of older individuals' experiences to understand how these places can enhance their well-being. This paper presents research findings that aim to understand how the everyday use of local high streets can support the well-being of older adults, focusing on the relevant features of the socio-spatial environment also defined as the public realm (Carmona et al. 2003). The following sections discuss the limited consideration of older people in high street debates and policies, and in research on the connections between well-being and urban environments. The paper then outlines the empirical research conducted with older individuals in three local high streets in Edinburgh (Scotland) and discusses the reported well-being-related features found in these locations.

High streets and older people

High streets in the UK are common, 'generic', central and distinctively unplanned urban places (Carmona 2021; Dobson 2022; Griffiths et al. 2008). Traditionally devoted to commercial activity, they have often '*evolved to become super-diverse places*' (Carmona 2021, 4).

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They can be the primary or higher rank commercial street in cities and towns, usually occupied by corporate multistore brands, or a '*secondary centre level*', either the centre of small towns or local centres serving neighbourhoods in larger cities (Wrigley and Lambiri 2014). In both cases, high streets have historically supported a great portion of urban activity due to their '*dual function as "links" in a movement system that connects places and as destinations, or "places", in their own right*', providing the 'infrastructure' for everyday activities and related housing opportunities (Jones, Roberts, and Morris 2007, xi). Since the late 1980s the balance between 'link' and 'place' has shifted towards the former and their commercial base has declined due to the competition of out-of-town shopping centres first (Dawson 1988), and the rise in online shopping more recently (Conisbee and Murphy 2004; Hughes and Jackson 2015; Simms et al. 2002), a process that has been hastened by the COVID-19 pandemic (ONS 2021; Sparks 2021a).

Evidence of high street decline is not universal (Millington 2018) and great variations have been found among localities (Findlay and Sparks 2013), yet many high streets suffer from increasing high vacancy rates and an excess of '*bad for health*' shops such as payday lenders, bookmakers, tanning salons and fast food outlets (RSPH 2015, 2018; Townshend 2016). To counter these trends, in England funds have been made available to support community-led initiatives and short-term measures to improve place maintenance and '*getting the mix* [of amenities and services] *right*' to keep high streets as gathering places that enhance place-based experiences (Communities and Local Government 2018; Grimsey 2018; Millington 2018; Portas 2011). The pandemic has brought to the fore the importance of locally accessible independent shops and services, highlighting the need for more holistic and less retail-focused strategies to revive these locales (Cooke, Streb, and Burns 2020; Grimsey 2021; Ministry of Housing, Communities and Local Government 2021; Mumford et al. 2020; Sparks 2021a). Research has shown that high streets could be more inclusive, providing access to shops, services and other facilities to people on lower incomes, people with restricted mobility and older people (Griffiths et al. 2008; RSPH 2015; Tibbalds 2012), fostering social interaction, public life and a local sense of community (Carmona et al. 2003; Dobson 2015). The predicted increase of the population over 65 has also led to acknowledging the need for '*adapting the centre for older people*' (Millington 2018, 19) and calls for high streets '*to appeal to younger and older people and create a vibe*' (Grimsey 2018, 27), suggesting that they can play a positive role in supporting interaction between generations (Coca-Stefaniak, Parker, and Grimsey 2018).

The Age Friendly Cities (AFC) movement (WHO 2007) recognizes the role of urban design in adapting the environment to an ageing population, identifying key dimensions such as housing, transportation and outdoor spaces and buildings that can foster healthy and active ageing (Buffel and Phillipson 2018; Finkelstein 2008; Jackisch et al. 2015). In alignment with post-pandemic recovery strategies (Corfe 2021; Phillips et al. 2021; Sparks 2021b; WHO 2007) the clustering of health, social care, community facilities; the fostering of intergenerational collaboration to enable employment and provide networks of community care; and opportunities for mentoring and volunteering can make local high streets more supportive for an ageing population (Mackett, Titheridge, and Achuthan 2010; Mayor's Design Advisory Group 2016; Wrigley and Lambiri 2014). Yet the AFC agenda often privileges a macro approach (Phillips et al. 2021), and does not prioritize specific environments such as local high streets and local retail centres, though they are an integral part of the everyday experience of older people (White and Hammond 2018).

In general, urban designers have been reluctant to engage with the topic of ageing, often generalizing older people's needs to issues of universal design (Handler 2018). Historically, with the exceptions of Mumford's criticism of segmentation of the housing market in the US (Mumford 1956) and Alexander's pattern #40, '*Older people everywhere*' (Alexander 1977, 216), classic texts of urban design only mention older people in passing (Jacobs 1961) or in relation to walking distances and the availability of public seating (Gehl 2011). Older people have been otherwise mentioned with reference to housing provision, planning for movement, access to local facilities and shops, and are often lumped together with so-called disadvantaged groups with accessibility and other special needs (Barton, Grant, and Guise 2006; Bentley 1985; Carmona and Tiesdell 2007; Carmona et al. 2003). Only more recently has the urban design discipline recognized the transformative impact this demographic change will have on society, and the new demands that an ageing population will place on cities as well as the potential that urban environments have to support older people's quality of life and well-being (ARUP 2015; Parkinson, Hunter, and Barac 2013).

The urban public realm, older people and well-being

Researchers have found links between older people's well-being and the urban public realm in two main areas: (1) mobility and access to facilities and amenities and the opportunities these can provide for social interaction, and (2) the related development of emotional attachment and sense of place.

Mobility and access to facilities and amenities

Everyday tasks such as shopping, visits to clubs, religious activities and others, have been found to be linked to feelings of independence and autonomy (Carp 1988; Chirkov et al. 2003; Ryan, Huta, and Deci 2008; Schwanen, Banister, and Bowling 2012). Key features that can positively impact older people's mobility and access to facilities such as firm and flat footpaths, traffic segregation, regulated crossings, street greenery and the availability of toilets and public seats have been proposed as prerequisites for successful public spaces (Carmona et al. 2003; Carmona 2019) and corroborated by empirical research (Brorsson et al. 2011; IDGO n.d.; Mitchell, Burton, and Raman 2004; Newton et al. 2010; Thompson et al. 2014). Conversely, the environment can hinder active travel for daily living, undermining well-being (Schwanen and Ziegler 2011) and relegating opportunities for physical and social activity to the home (Brookfield et al. 2015). The distinctiveness and familiarity of the urban environment are also relevant to counter short-term memory confusion and can help people with dementia to orientate themselves (Burton and Mitchell 2006; Mitchell 2014), bringing new validation to key urban design concepts such as Lynch's (1960) legibility of urban space. Conversely, perceived environmental barriers, risks and fear for personal safety can negatively influence walking behaviours and undermine the experience of being out and about (Brookfield, Ward-Thompson, and Robert 2017; Carlson et al. 2012; Cerin et al. 2017; Zandieh et al. 2016).

The built environment can support older people's competencies and contribute to their quality of life (Glass and Balfour 2003; Lawton 1999), and access to destinations and physical movement during travel can increase sense of self-realization, self-esteem, freedom and independence (Burton and Mitchell 2006; Diehr and Hirsch 2010; Holland et al.

2005; Peace, Kellaher, and Holland 2006; Schwanen and Ziegler 2011; Schwanen, Banister, and Bowling 2012). Attractive destinations foster walking as a principal mode of transport (Dempsey, Brown, and Bramley 2012), and walking can have a positive impact on well-being through physical activity (Andrews et al. 2012; Ettema and Smajic 2015) and the experiential encounter with the environment (Cold 2001; Lindal and Hartig 2013; Moudon and Lee 2003), including social interaction in public space (Ettema and Smajic 2015; Gatersleben and Uzzell 2007; Nathan et al. 2012).

Social interaction and sense of place

Environmental gerontology has emphasized the interdependency between people's self-reported well-being and the senses of identity, belonging and place, for example linked to access to everyday settings outside the home, including local amenities (Phillips et al. 2013; Phillips, Walford, and Hockey 2011; Rowles 1978, 1983, 1993, 2000). Social engagement in public spaces in later life has been positively linked to a sense of identity and attachment to one's community (Berkman and Glass 2000), with positive effect on well-being (Bowling 2005; Dines et al. 2006; Farquhar 1995; Jagger and Brittain 2014; Mean and Tims 2005; Searle 2008; Worpole and Knox 2007). Social interaction and connectedness are also related to emotional attachment and sense of place and are a relevant feature of age-friendly communities which can be hindered by the lack of physical spaces to socially engage, and the availability of transport to reach those social networks (Emlet and Moceri 2012).

Despite the considerable attention high streets have received from policymakers, academics, and various sectors in the UK, it is surprising how little research has focused on the ageing population's perspective. No previous study has thoroughly examined how older adults utilize these spaces or explored the connections between their socio-spatial realm and well-being. To bridge this gap, the research presented in this paper aimed to investigate the impact of local high streets on the perceived health and well-being of older individuals and set out to understand how specific urban design elements within the public realm of high streets can either promote or hinder well-being.

Methods

An in-depth, inductive place-based investigation was undertaken exploring self-reported well-being amongst older adults across local high streets in the city of Edinburgh, Scotland. These are also referred to as 'local town centres' (CEC 2016) and therefore both terms are used interchangeably in this work.

The Edinburgh Local Development Plan describes nine different local high streets (Figure 1) as '*important focal points for people who live and work in Edinburgh, providing shopping, leisure and community facilities in locations which can be easily accessed by walking, cycling or public transport*' (CEC 2016, 35). These locales were audited according to a range of nine parameters related to their 'link' and 'place' functions (Jones, Roberts, and Morris 2007, xi), listed in Table 1 and pictured in Figure 2.

Three high streets were then chosen to capture a wide spectrum of these variables: Corstorphine town centre (CTC) in the west (Figures 3 and 4), Leith Central town centre (LTC) in the north-east (Figures 5 and 6) and Morningside town centre (MTC) in the south (Figures 7 and 8).

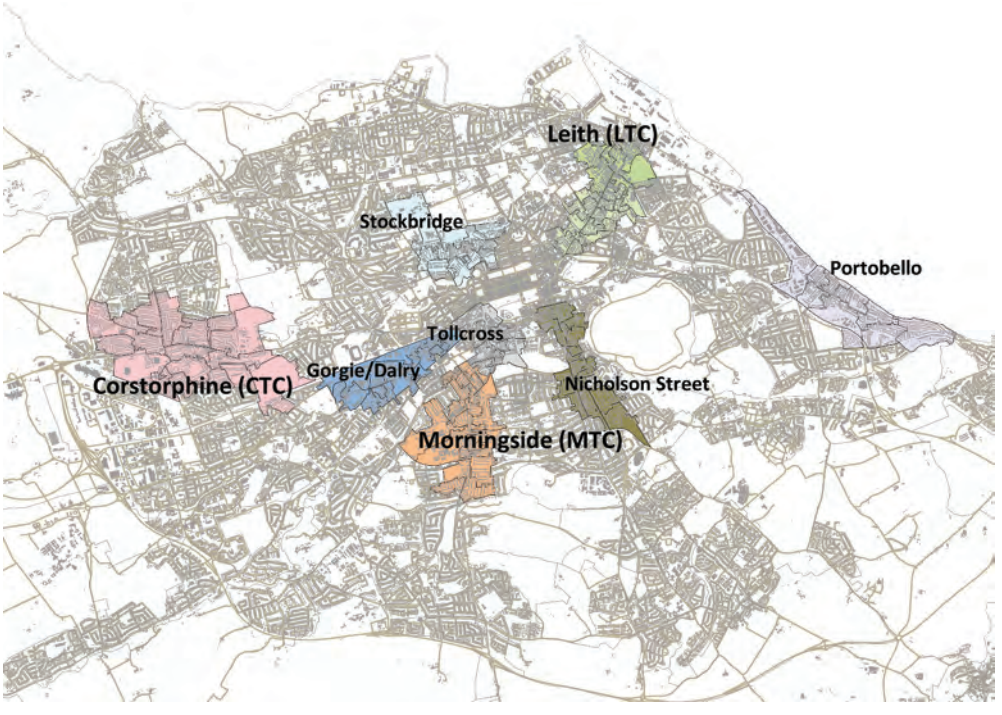

Figure 1. Map of Edinburgh local town centres and data zones considered. Source: Ordnance Survey data © Crown copyright and database right 2023. Adapted by L. Brunelli in ArQGIS.

Table 1. The nine parameters used to assess the local town centres and related scoring.

		SCORE				
		1	2	3	4	5
PARAMETER	% of Population >60	9%	11%	13%	17%	30%
	Pensioner households Material deprivation	10%	9%	6%	6%	4%
	Crimes x 10.000 habitants	9667	6718	3534	3164	2753
	Vacancy rate % of empty businesses in 2013	15%	13%	8%	6%	5%
	No. of bus routes	3	5	7	8	10
	Traffic flow Average no. vehicles per day	>28.000	21–28.000	14–21.000	<14.000	
	Community activities for older people	1	3	5	8	11
	Density dwellings/hectare	26	59	73	85	101
	Land use mix was based on an assessment reported by CEC (2013) and ranked 1 for poor mix and 5 for greater.					

Data collection

As the research investigated not only the 'what' but also the 'how' and 'why' from the perspective of older people, interviews were the main method of data collection. Three types of interview were employed: walking interviews were chosen as preferred method of inquiry to place the narrative of older people's experience in its spatial context; semi-structured interviews were the alternative choice for those who declined or were not able to attend a walking interview. These methods provided in-depth discussions on high street usage and its impact on well-being. In addition, focus groups were conducted to elicit collective understandings of place.

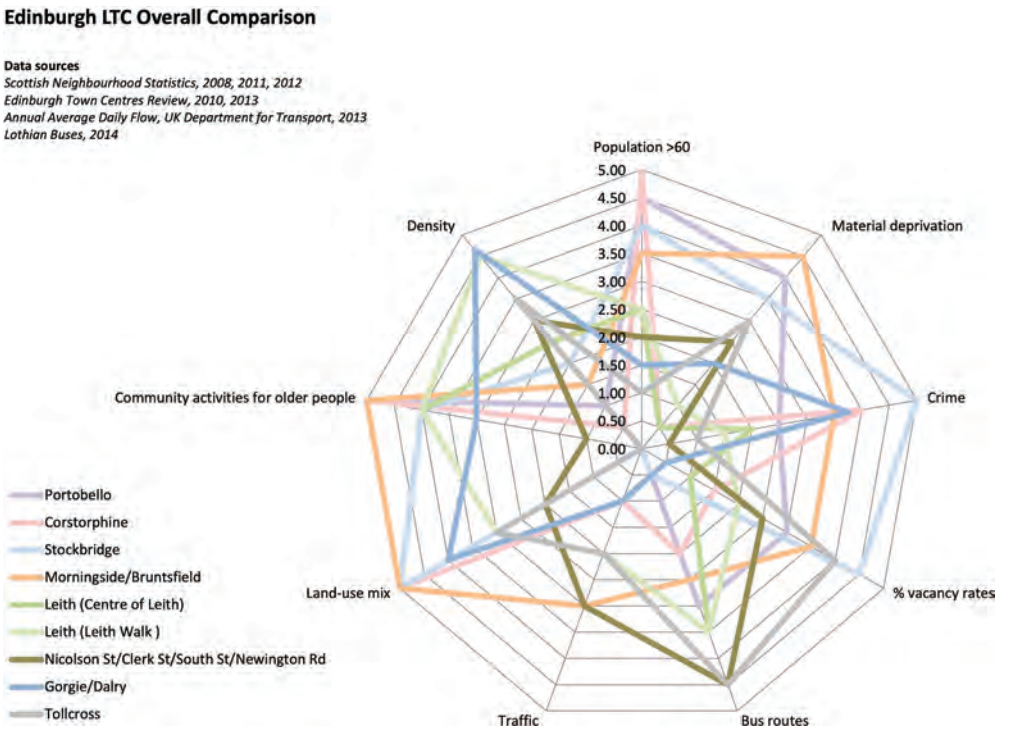

Figure 2. Diagram of the nine parameters used to audit Edinburgh's nine local high streets.

Figure 3. Corstorphine town centre (CTC). Source: L. Brunelli.

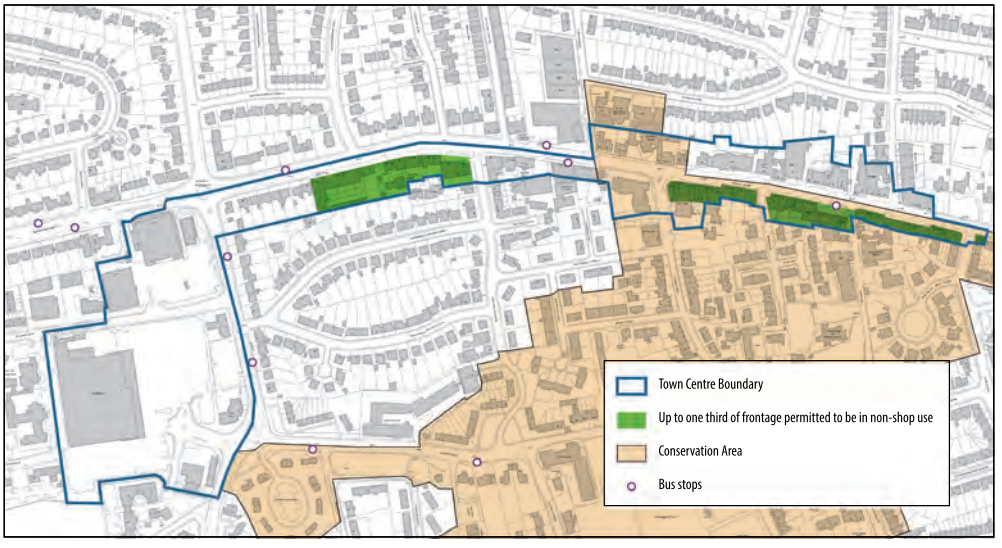

Figure 4. Map of CTC. Source: City of Edinburgh Council Local Development Plan Supplementary Guidance. © Crown copyright and database right 2023. All rights reserved. Ordnance Survey licence number 100,023,420.

Figure 5. Great junction street in Leith town centre (LTC). Source: L. Brunelli.

Walking interviews ($n = 25$, 1–2 hours duration) were prioritized to allow a greater understanding of the interaction with the built environment and for situated social encounters to be observed and recorded (Brookfield, Ward-Thompson, and Robert 2017; Evans and Jones 2011; Phil et al. 2008; van Cauwenberg et al. 2012). Participants chose a starting point along or near the high streets and discussed their daily experiences while walking. Whenever it was possible without interfering with the flow of the interview,

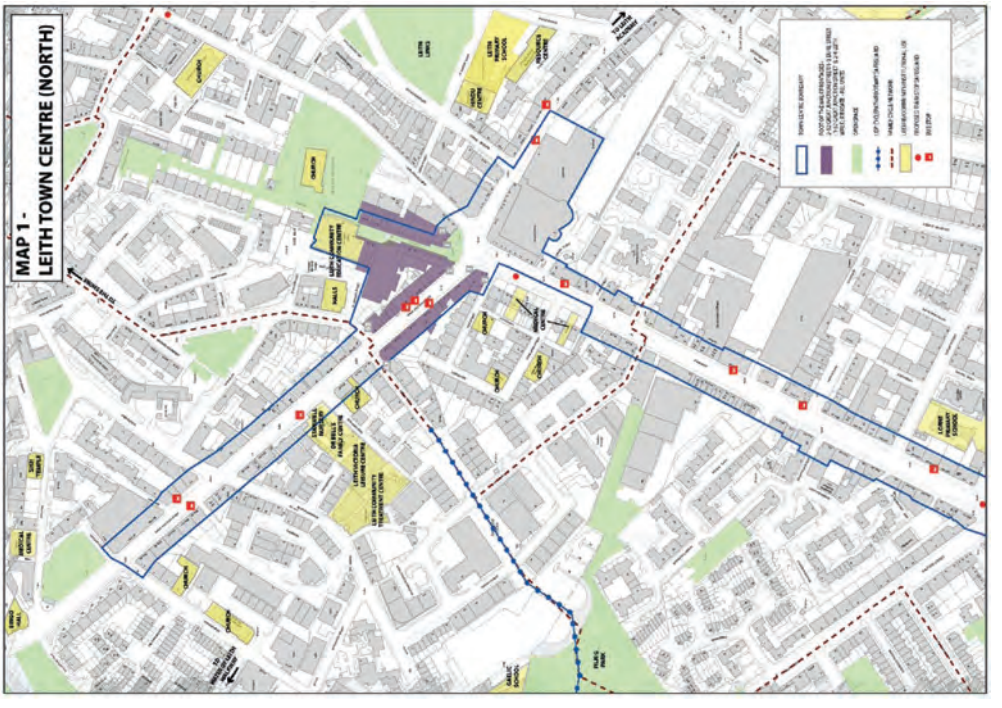

Figure 6. Map of LTC. Source: City of Edinburgh Council Local Development Plan Supplementary Guidance. © Crown copyright and database right 2023. All rights reserved. Ordnance Survey licence number 100,023,420.

Figure 7. Morningside town centre looking up north (MTC). Source: L. Brunelli.

photos of features mentioned in the conversation were taken providing visual evidence on the links between '*what people say with where they say it*' (Jones et al. 2008, 2). Walking interviews were useful to gather more detailed information about features of the high streets and the more general 'atmosphere' of the place, often impacted by noise and

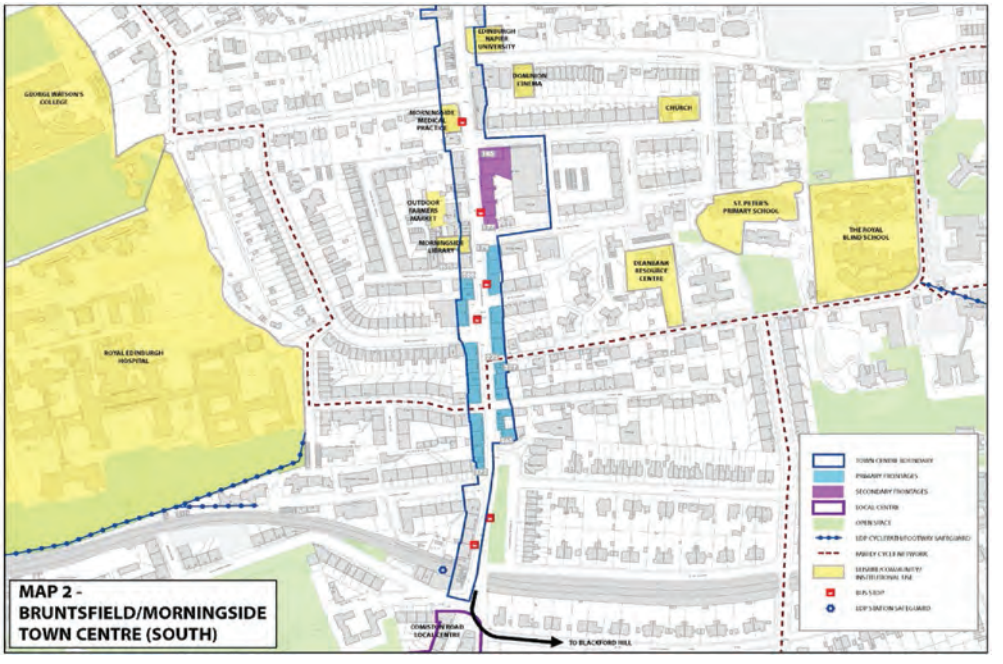

Figure 8. Map of MTC (south section). Source: City of Edinburgh Council Local Development Plan Supplementary Guidance. © Crown copyright and database right 2023. All rights reserved. Ordnance Survey licence number 100,023,420.

other environmental conditions which were shared between the researcher and interviewee during the walk. The walks provided a spatial specificity to the discussion, revealing taken-for-granted aspects of the everyday environment which were then used as a prompt for discussion by the researcher. This happened, for example, in relation to features of the streetscape such as the width of footways and crossings. In addition, walking interviews also afforded the opportunity to observe the '*rhythm of walking*' (Lee and Ingold 2006, 69), i.e., people's physical and embodied experience particularly in relation to physical barriers and how they impacted everyday use. Walking at the same pace on the same pavement facilitated an 'attunement' between the researcher and the interviewee which helped to be more perceptive to their response to the environment. In general, it was also found that by sharing the act of walking, a '*sociability of walking*' (Lee and Ingold 2006, 69) emerged between researcher and interviewee. The formality of the interview process was somehow softened by the physical co-presence of walking together. In addition, and as supported by Kinney (2017), walking often made it easier to talk and facilitated conversation, with being side by side reducing some of the power imbalances in traditional methods, e.g., when sitting across from someone as part of a face-to-face qualitative interview.

Semi-structured interviews ($n = 16$, 1–1.5 hours duration) took place in easily accessible locations of participants' choice, such as coffee shops or community centres. All participants in walking and semi-structured interviews ($n = 41$), prior to be interviewed completed a short activity diary that focused on their weekly shopping patterns and other out-of-home activities. The diaries were used to prompt clarifications during the interview process.

Twelve focus groups ($n = 51$, 3–8 participants each) were undertaken amongst community groups around already scheduled programmes and activities and conducted in premises people were already familiar with including day centres, parish halls and local libraries.

Rich contextual information about the public realm and usage practices, particularly in relation to older age groups, was obtained through additional direct and unstructured field observations (Gehl and Svarre 2013; Zeisel 1984). Unstructured observations recorded in notes and photographs helped to increase familiarity with the sites and to make '*empathetic*' (Zeisel 1984) observations of people's behaviours, i.e., attentive to nuances of behaviours and expressions of everyday life which might be important. Photographs taken during the field observation were valuable in recording subtleties of behaviours and details of the environment which were otherwise difficult to capture (Zeisel 1984). For example, observations provided clues about street crossing strategies for older people; however, it was only through the interviews that it was possible to understand the impact of regulated crossings on participants' well-being. Thus, the methods complemented each other in terms of generating different perspectives on and insights into place.

To gather quantitative age-related data on pedestrian footfall in the three case studies, structured observations were conducted during retail hours and early evening at fixed points along the street, counting and recording the demographic characteristics of pedestrians (Gehl and Svarre 2013; Holland et al. 2007). Counting was undertaken for 15 minutes every hour during retail hours and early evening, between 9 am and 6pm, on both weekdays and Saturdays. Limitations and assumptions about the observational data were reflected upon, including the challenges of using visible markers to identify participants by age.

Participants

Participants were recruited through a purposive sampling strategy within local communities, primarily through local service providers who introduced the research project with the assistance of managers and staff. The main inclusion criteria were age (60 and above, encompassing individuals in early retirement, transition, and in bridge jobs) and 'geographical homogeneity' (Robinson 2014), focusing on the use of one of the chosen high streets. Screening for gender, mobility levels, and socio-economic background was also undertaken to ensure diverse perspectives in the research (Emmel et al. 2007). Referral sampling and 'local guides' (Lofland and Lofland 2006, 66–67) were employed to enhance the sample (Noy 2008), and the sample size was determined based on data saturation while data analysis was in progress (Guest et al. 2006). Overall a total of 84 people took part in the qualitative data collection ranging between 63 and 96 years old (mean 78), and 61% were female (see Table 2).

All participants, including those who attended focus groups, were asked to do a walking interview. One participant took part in both a focus group and a walking interview, while five participants initially declined walking interviews but later changed their minds and attended both types of interview. A pilot study was conducted to refine the walking interview procedure and interview guide.

Table 2. Sample and interviews distribution across the three case studies.

Leith Central Town Centre (LTC)	Morningside Town Centre (MTC)	Corstorphine Town Centre (CTC)
n = 32	*n* = 26	*n* = 26
3 focus groups	4 focus groups	5 focus groups
8 face-to-face interviews	3 face-to-face interviews	5 face-to-face interviews
8 walking interviews	7 walking interviews	10 walking interviews
Age range 66–96	Age range 65–91	Age range 63–96
Average age 79	Average age 80	Average age 74
66% female	65% female	50% female
NS-SEC classes 5–8: 70%	NS-SEC classes 5–8: 27%	NS-SEC classes 5–8: 27%

In the National Statistics Socio-economic Classification (NS-SEC) the higher the score the lower the socio-economic status of occupation, for example 5 is for electricians, 6 is housekeepers and 7 butchers, cleaners or labourer in general while 1 is managerial or professional occupation. Retrieved from: https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticssocioeconomicclassificationnssecrebasedonsoc2010 [last Accessed December 2023].

Data analysis

All three types of interview were recorded and transcribed verbatim. Thematic analysis (Braun and Clarke 2006, 2012; Bryman 2012; Nowell et al. 2017) was used to analyse the data, organizing it into key strands of meaning and addressing the research question: What are the main features of local high streets that contribute to well-being? Transcriptions were coded, creating a framework to identify resources related to well-being, including physical environment features, social settings, and activities. Qualitative analysis software was utilized to develop an analytical framework based on emerging clusters of themes and codes. The analysis took an inductive approach, closely aligning with participants' perspectives and interpretations of reality (Strauss 1987, quoted by Bryman 2012, 573). Pseudonyms were used to protect participant identities without being de-personalized.

Contextual information gathered with the screening and the weekly activity diaries, in addition to the quantitative data from the footfall analysis, supported the thematic analysis of the interviews. The activity diaries allowed for a comparison of the frequency of use, transportation methods, and perceived importance of the three case studies in relation to alternative destinations. The footfall data gathered through structured observations helped put in context participants' comments in relation to weekly patterns of use, the proportion of older people in the street and the impact on access and use by weather, temperature and the orientation of the streets. Unstructured observations provided further nuance to the analysis of comments in relation to the actual physical environment of the local town centres. Field observation notes and photographs are prone to misreadings of what motivate people's behaviours though (Zeisel 1984) and were used in this work in combination with participants' reported experiences rather than presuming any positive (or negative) impact on well-being.

Historical visual research about the evolution of the three local high streets – examples of which are the historical photos in Figures 9 and 10 – also helped to contextualize older people's experiences of public space against a more objective appraisal of the evolution of the places over time.

The research was granted ethics approval from the Heriot-Watt University Research Ethics Committee.

Figure 9. Left, photos taken in MTC in 1964. © Thomas Morgan McGurk. Right: the same street in 2015. © 2024 Google.

Figure 10. The New Kirkgate in the 1980s. 000-299-989-104-R © Royal Commission on the Ancient and Historical Monuments of Scotland.

Results

This section provides a description of the features of local high streets that participants identified as most relevant to their well-being. The links to the latter and to relevant literature are then articulated in the following discussion section. The main well-being related features of the local high street that emerged from the thematic analysis of the data are broadly related to two different domains of urban design and planning: the micro-scale of the streetscape and its main components such as pavements, frontages and features of comfort like seats and public accessible toilets; and issues of access and use such as the availability of public transport, the spatial distribution of shops and amenities and the location of place of residence in relation to high streets.

Streetscapes to support well-being

Several aspects of the physical environment and design of the streets emerged from the research as having an impact on participants' well-being.

Challenging ground

Pavements are the place where local high streets are experienced. They are essential to facilitate walking, but remain unnoticed in the background unless they hinder movement. Across the three case studies they were often described as '*horrible*', '*bad*', or '*a disgrace*', curbing access to shops and amenities and undermining the social dimension of being out with someone for those using mobility aids, or those frailer who opt to go out alone to keep focused on walking (Figure 11).

In addition, poor quality pavements also undermine the appreciation of shopfronts and lessen the interaction at the threshold between the footpath and premises which would otherwise invigorate public life and social well-being. This is often aggravated by clutter – *'terrible, it's all over about!* – such as bins, rubbish or A-signs obstructing the footway (Figure 12).

The narrower the pavement, the greater the impact of clutter and the effort required to get out and about, particularly at mid-day when footfall was higher in certain locations (Table 3).

Most participants negotiated narrow pavements with a sense of helpless conformity, unable to imagine the local town centre differently from what they knew. They felt that any enlargement to the footway would be to the detriment of traffic, reflecting the conflicting interests along local town centres between motorized traffic, parking provision, and pedestrian needs. In two of the case studies, MTC and CTC, negligible changes are detectable in the streetscape when comparing photos taken 30 or 40 years apart (Figure 9) and this may explain why imagining a different streetscape proved to be so difficult for most participants. Only one interviewee was able to articulate what constituted a pedestrian friendly environment:

Table 3. Footfall count in the three case studies.

Local town centre	Working day	% old	% old female	Peak hour	Saturday	% old	% old female	Peak hour
CTC, Corstorphine	2296	43%	61%	12 noon	2960	27%	53%	11
LTC, Leith Central	7000	28%	55%	15	5961	22%	54%	12 noon
MTC, Morningside	6176	29%	59%	11	7364	26%	58%	15

Figure 11. Poor pavements captured during a walking interview in CTC. Source: L. Brunelli.

Figure 12. Discussing A-signs clutter during a walking interview in CTC. Source: L. Brunelli.

> I wish it could be like a big square. You know, no traffic going through, and shops all around this and cafés and. . . [LAUGHS] and just sitting and watching everybody going by. [Morag, 89, MTC]

A small square can be found in LTC, where after the clearance of old tenements in the 1960s, the main street, was replaced by a shopping centre (Figure 10).

Figure 13. The New Kirkgate in 2015. Source: L. Brunelli.

This urban space went through a series of renovations over the decades and remained traffic-free, still affording a sense of security to local participants albeit seats had been removed over the years (compare Figures 10–13).

In the same area pavements had been recently improved (Figure 14), and participants felt more comfortable walking on the new surface and were encouraged to go out and about more frequently: *'So I do all that now [going out and about everyday] because of the new stuff, it makes you feel safer when you're walking, but further up the slabs are still up and down'* [Lucy, 67, LTC].

In this location, walking interviews also revealed how people felt more confident and walked at a steadier pace.

Figure 14. The new pavement at the foot of Leith Walk (LTC). Source: L. Brunelli.

Footpath continuity and crossings

The continuity of footpaths and availability of crossings can support or hinder movement in the public realm. Crossings play a crucial role in maintaining pedestrian routes along high streets, impacting the accessibility of the area and influencing the walking experience, particularly for older adults. When interviewees discussed crossings, they usually referred to the number of regulated crossings and their location in relation to amenities on both sides of the street. Whilst additional zebra crossings made available after improvements to the LTC main street (25 m wide) were appreciated, most participants still preferred the signal-controlled crossings – even if crossing times were often inadequate – feeling insecure on non-controlled ones and considering '*that would be a life hazard!*' [Thelma, LTC, 73]. The width of the street and traffic intensity also influenced the crossing experience. When signalled crossings were too far apart or poorly positioned in relation to key attractions, some participants opted to cross at any point to reduce distances (Figure 15), or even adjusted their choice of services to minimize physical effort and maintain independence.

Side street crossings – also referred to in the literature as 'near junction crossing' – also have an impact on the perceived continuity of the footway along the main street. They are of particular concern when people do not feel quick enough to react to approaching cars and they tend to avoid eye contact: *'I just put my head down and keep going and they really have to stop'* [Maidie, 87, MTC]. Traffic is a serious barrier amongst those with mobility restrictions and the discontinuity of the footpath at side crossings challenges people's ability to get out and about.

Figure 15. Shortening distances: crossing in LTC. Source: L. Brunelli.

Diverse frontages

People in general were drawn by the variety of shop fronts that afford curiosity and raise a sense of enticement in discovering what the shops have on offer and the serendipity of finding something on the spot:

> I browse these shops out of curiosity you know . . . just like to see what's there . . . [Glen, 76, MTC].

This was particularly evident in the more affluent location (MTC), whilst the decline of the traditional and more up-market range in CTC brought a sense of frustration, symbolizing a loss of attraction to the place. Another important feature of frontages valued by participants was transparency that allows seeing into the building (Figure 16), connecting the interiors to the public realm of the street:

> I think you didn't know what was going on [in the previous community centre] while if you pass here you notice there's [something going on]. Nora [63, CTC]

Features of comfort

The few public toilets and seats that were available in the three case studies were identified as important features of the environment, particularly by those with mobility impairments. These features of comfort enabled them to rest, spend more time outdoors and keep going out on a regular basis, supporting their mobility and sociability, and therefore well-being, in their everyday use of local town centres.

Seats in LTC were seen as supporting social interaction; however, they also raised feelings of insecurity and anxiety because they attracted groups of drug addicts resulting in the council removing public benches to prevent cases of antisocial behaviour. Other barriers to sitting and resting, including the local climate and heavy traffic, undermined the environmental quality in the three case studies. Local high streets were described as '*congested*' and '*busy and noisy*', and noise levels undermined the convivial nature of the public space, particularly amongst those experiencing hearing impairments. For many the idea of sitting and lingering along the street did not appeal, with many preferring to remain mobile and active:

Figure 16. The provisional community centre in CTC, 2016. Source: L. Brunelli.

> Don't sit around too much. That's what you do when you're older, you keep moving. [LAUGH] That's what they say. [. . .] You can sit at home any time. [Leslie, 85 and Donna, 88, MTC]

Access and use

A relevant set of well-being features relate to issues of access to and from local high streets, mainly by public transport, and other aspects of daily use that are concurrent with the spatial distribution of shops and amenities and linked to the location of residence. According to the activity diaries, more than 65% of those using MTC and LTC, and almost 50% in CTC do so more than five days a week. '*Handy*' or '*convenient*' are the adjectives most used by participants to describe how local high streets contribute to their well-being. This relates, for example, to the availability of bus routes connecting home and the location of bus stops in relation to specific amenities or services: *'I really value that I just come out of the house and get any bus up the way to the town, down the way to XXX. And that's the same for coming back'* [Lucy, 84, LTC]. Public transport on local high streets emerged as a valued feature as it enables people to reach other locations in the city, supporting a degree of freedom and autonomy when journeying around, even getting on a bus without having a prefixed destination in mind: *'I'm going to take the 36. Just to see where it goes [laughter]'* [Hugh, 72, MTC].

A defining and highly appreciated aspect of local high streets was the mix of shops and other services available in a limited space, and even more so if they have a '*critical mass*', i.e., an adequate number of outlets and amenities to make the trip worthwhile (Figure 17) giving people reliable access to amenities that can satisfy their daily needs:

> It's a bit of an effort for me to get to that street [MTC] and so when I do go shopping it's better to go to a street like that where there's a choice of shops and a post office. So, one trip will do. It makes it worthwhile. [Derek, MTC, 90]

High streets can also support unplanned activities, supporting casual forms of engagement:

> Yes, I can use what's there, I don't have to plan . . . if I'm going to go, if I go with my wife to [large supermarket], you know you have to think about what you're going to do, and why you're going there whilst you know I come down here on quite a casual basis. [Hamish, 63, CTC]

Whilst most participants were content with the range of amenities available, many were also disappointed by the disappearance of specialist shops like hardware shop and traditional butchers, and by the number of charity shops that erodes the variety of retail outlets and small businesses that make these locales attractive.

Finally, several participants expressed how valuable it was for their well-being to be living close to, or on the local high street. Many happened to be living close-by before growing old and discovered the benefits, for example when they stopped driving or were supported by a local council programme[1] following bereavement. Others deliberately decided to locate their own residence within the cluster of services and amenities that the high street offers:

> I discovered 7 or 8 people who stay up the hill and they're moving down . . . they all had the same idea, we need to downsize, and more convenient, closer to shops and where the buses [are] and everything. [Eric, 74, CTC]

Figure 17. Making the most of being 'out and about' in MTC. Source: L. Brunelli.

Likewise, Lorna [MTC, 91] appreciated living on the high street because she could maintain her autonomy and access the shops that cater for her needs:

> There's convenient, there's every kind of shop I need. It's at my door [. . .] without feeling I'm in a big shopping area. You know, it's nicely spread, and we've got a little of everything, haven't we? [Lorna, 91, MTC]

Or regretted not having moved when they were still able to do so:

> [moving] Breaks your heart, but we're there and it's done now and we're very happy there [MTC], pleased there it's a great place to live . . . we feel sorry for other people who have left it too late, can't make the move, are stuck where they are, got lots of problems because the house they live in is not suitable for them anymore. So, you know, I would say the best is to move earlier than too late. [Glen, 76, MTC]

Discussion

The high street features identified by this research are linked to four key well-being dimensions which emerged from the thematic analysis of the data (Figure 18): social well-being (WB1), sense of place (WB2), enjoyment and feeling active (WB3), and sense of purpose and mastery of the environment (WB4).

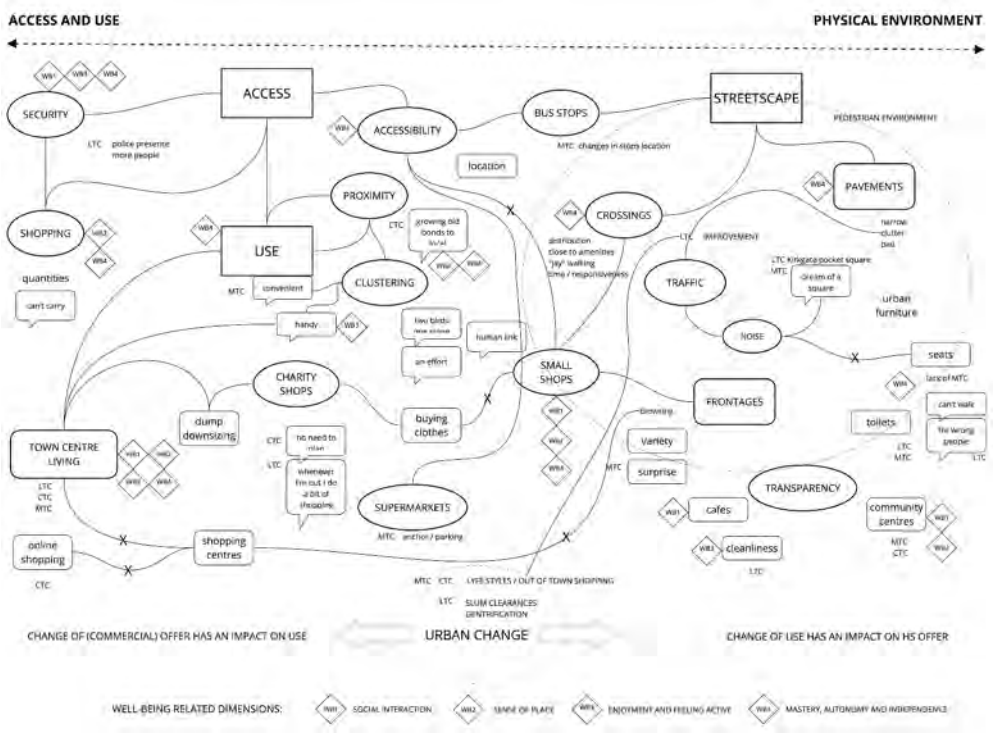

Figure 18. Thematic analysis of well-being features.

Local high streets contribute to social well-being by providing opportunities for everyday connections. The distinctive character of these streets fosters a sense of place, often rooted in long-standing routines. Being 'out and about' at the local high street also promoted people's sense of feeling active, while access to local facilities enhanced feelings of self-competence and personal autonomy in daily tasks.

Streetscape

A supportive pedestrian environment

Navigable pavements and footpaths were crucial for a positive experience of the public realm in high streets (WB3). Improvements in one of the case studies (LTC) demonstrated how an amenable surface for walking can increase the sense of security and positively impact on participants' sense of autonomy and independence (WB4). These findings corroborate previous studies on age-friendly features of the built environment (Brorsson et al. 2011, 2013; Burton and Mitchell 2006; Mitchell 2014; Newton et al. 2010) and are aligned with urban design literature and design guidelines for 'place making' (Ewing and Clemente 2013; Llewelyn-Davies 2000). The results bring a novel focus on the relevance of good quality surfaces for local high streets as they can often be the main source of older adults' outdoor recreation for both physical exercise and social interaction, linking several dimensions of well-being (WB1, WB3, WB4) and contributing to a stronger sense of place (WB2).

On the other hand, an uneven pavement hinders mobility, absorbing attention and efforts particularly for those using mobility aids, and spoiling the social experience of walking with others, the '*attunement*' and '*sociability of walking*' (Lee and Ingold 2006, 69). Some people felt a lack of confidence in walking and talking at the same time, a dual-tasking that may result in an increase in falls amongst frail older people (Lundin-Olsson, Nyberg, and Gustafson 1997). This issue was also experienced during the walking interviews, when the self-perception of walking and mobility (Ziegler and Schwanen 2011) came to the fore, pace slowed down and conversations were interrupted to complain about the quality of the streetscape.

Challenging crossings

Participants emphasized how daily negotiations between one own's abilities and the local high street environment can be a source of satisfaction and well-being (WB4), particularly when they were able to access all amenities on both sides of the main road. However, getting across the street was often reported as a stressful experience. Even at signalled crossings, they were considered *'not easy to bypass'* due to the short time available to get across or because they were unaware of how the sensors on the traffic lights operate. In some cases, people chose to avoid crossing altogether as an example of place avoidance, with participants preferring to use shopping centres. To keep one's own independence when mobility is impaired, some reconsidered the location of services and even moved their GP practice to more accessible locations, even when this meant choosing alternatives further away but accessible by taxi instead of walking. What this research has also found is evidence that side street crossings along the high street could be more stressful and challenging than crossing the main street. Participants often negotiated these crossings to keep their well-being (WB3 and WB4) by avoiding eye contact with drivers.

Enticing frontages

The importance of a continuous and well-kept footpath was related to access to shops and perceptions regarding the continuity of frontages, and to the aesthetic enjoyment of the local high streets with a positive impact on older adults' well-being (WB3). Varied shop windows and frontages contributed to a sense of inclusivity and diversity which attracted participants and supports findings from previous studies on commercial streets (Ewing and Clemente 2013; Gehl 2010, 2011; Mehta 2014). The degree of transparency of the threshold between the street and the interior of the premises combined with a slower walking pace (Moudon and Lee 2003), allowed people to perceive and enjoy human activity in both directions and fostered among participants the perception of the local high street as a quintessential social urban place contributing to their social well-being (WB1). Participants were appreciative of the possibility to see inside the commercial premises and valued as '*welcoming*' chairs and tables located outside the entrance. Some suggested that activities could be '*externalised*' to the street (Llewelyn-Davies 2000), increasing the social character and therefore the well-being supportive quality of high streets.

On the move: seats and toilets

Many local high streets offer a destination to be '*out and about*' and a daily place for '*being on the move*', which supports their feeling of being active and generates a sense of well-being (WB3) that derives from having continuity in their mobility practices in later life (Ziegler and Schwanen 2011). For many, visiting a local high street was described as an opportunity for physical activity and having a place to sit and rest when out and about was not considered a priority as they had plenty of sedentary activity at home. However, some participants utilized private seats in restaurant terraces, and even a bench on display for sale outside a shop, as a strategy to prolong the time spent outdoors. This finding evidences the lack of suitable seats along the three case studies and the potential that initiatives like the 'take a seat' campaign[2] could have in encouraging older people to visit these locales more often. The paucity of comments about the lack of seating available can also be explained because of the poor environmental quality of the local high streets examined, which experience a high volume of traffic (see Figure 1 and Table 1). Data from the Scottish Government[3] show that in CTC, the most affected case among those studied, average noise level is above 75 dB and over the '*hearing impairment*' threshold set by WHO (Berglund et al. 1999). Not surprisingly, such environmental hazards deterred use and were seen as having a deleterious impact on well-being because of air and noise pollution. As a result, very few people reported using the available benches tucked away in MTC. The perception was different in LTC, where participants expressed their desire to have more opportunities to sit and linger in the pedestrian square to enjoy the sociability of public benches (Bynon 2015; Ottoni et al. 2016). However, some participants were deterred from doing so by the lack of seats, the local climate and the poor perception of safety in this specific public space.

Similarly to public seating, the prevalent literature has established a link between lack of public toilet facilities, navigating communities and prolonged stays out of the home environment (Brookfield, Ward-Thompson, and Robert 2017; IDGO, n.d.), yet few participants mentioned public toilets as something that would be a determinant in their decision to go out. However, some people expressed discomfort when using facilities in pubs without being customers, or even having to return home if close enough, practices that evidence the determination to enjoy being out of home (WB4) and yet can undermine their sense of independence and attachment to the place (WB4 and WB2).

Access and use

Modalities of access to and use of local town centres were found to be linked to participants' well-being in relation to a general sense of 'usefulness' that participants described as '*handy*' and '*convenient*', i.e., fitting in well with a person's needs, activities, and plans (WB4). Convenience as a source of well-being in this work can be articulated in relation to two main aspects which are intrinsic qualities of high streets, as they facilitate the connection with other urban destinations, and can be distinctive urban places on their own (Jones, Roberts, and Morris 2007).

A useful destination

The three case studies are important thoroughfares, highly accessible by public transport and valued places from where to reach and explore other parts of town, and critical to supporting connected communities. For many the local town centre nurtures their sense of freedom, autonomy and flexibility (WB4) as people can travel to and from it, an attribute that in previous studies has been described as the '*mobility potential*' (Kaufmann 2002; Nordbakke and Schwanen 2014; Oswald et al. 2005).

A cluster of amenities

Ease of access to, and movement within each locale along the clustering of amenities in the street make town centres a source of daily satisfaction and well-being (WB3 and WB4). Shopping and access to services in these locales is perceived as convenient and a valid alternative to shopping centres or large supermarket where many do not feel comfortable. The variety of shops and facilities available next to one another afford participants the ability to 'maximise' (Hart et al. 2014, 4) their journeys to local high streets and access amenities every day if needed. The clustering of uses varied from place to place and shops like the butcher (MTC), clothing and shoes (CTC, LTC), hardware shops (CTC, LTC) and retailers selling white goods are no longer available. To counter this trend some participants consciously supported local shops because they value the opportunities they offer to establish a '*human link*' [Ayla, 71, MTC] with shop assistants. This was also reported, though more rarely, as happening in relation to local supermarkets, which in both MTC and LTC increase footfall and sustain other shops in the area.

Town centre living

Relocating in later life is often a stressful experience (Oswald and Rowles 2007), and it is mediated by personal circumstances such as levels of disposable income and family support, the quality of the new environment (Sim et al. 2012) and the social opportunities it can afford (Sim et al. 2012). This work provides new evidence that when a local high street is part of this wider environment, the emotional stress of the relocation can be offset. This was confirmed not only by those who moved, but also by those who found themselves too frail and regretted not having made the decision earlier. A more focused definition of what is 'conveniently located' (Park and Ziegler 2016, 10) then emerges, one that acknowledges the limitations of current housing choices and values housing that is better integrated in existing neighbourhoods and in proximity to local town centres. Living along the high street was for some participants part of a deliberate strategy to shorten distances and support their autonomy and several other dimensions of well-being in later life. However, the decision to relocate was subject to the availability of suitable housing. Sheltered homes catering for older people living independently with daytime wardens, and having the opportunity to downsize were not always affordable and available in the three case studies, and newly built retirement flats were considered either expensive (MTC) or for very low-income tenants (LTC). In line with a recent trend (Hammond, Walsh, and White 2018; Park and Ziegler 2016), not all wanted to move to specialist housing but the mainstream offer of new flats available in CTC and MTC was mainly targeted to higher income households.

Attracting more residents to revitalize town centres has been on the UK urban agenda for more than two decades as part of the so called 'urban renaissance' (Heath 1997;

Hubbard 2006). Recently promoted by the Scottish Government '*town centre living*' embedded in the 'Housing to 2040' strategy and in the new National Planning Framework (Scottish Government 2013a, 2013b, 2021, 2022, 2023), it is more broadly included as part of the 20-minutes neighbourhood concept in England (TCPA 2020). The suggestion that older people could benefit from living in central areas if appropriately designed is not new (Hanson et al. 2002; Parkinson, Hunter, and Barac 2013), although those over 65 were initially the least attracted to town centre living (Heath 2001). In the three cases, social vibrancy and the variety of shops and amenities in the local town centre were described as essential factors having a bearing on participants' decision to relocate nearby. These findings provide novel insights from the perspective of older people and evidence that local high streets can offer purposeful environments for an ageing population at the crossroad between various dimensions of the AFC agenda such as housing, transportation and outdoor spaces and buildings.

Conclusion

This work has explored what features of local high streets can support well-being in later life based on an investigation on three case studies in the city of Edinburgh. The research has provided evidence that local high streets offer a range of social, spatial and material resources which positively impact on older people's well-being in four key dimensions: social well-being, sense of place, enjoyment and feeling active and sense of purpose and mastery of the environment. The findings can be summarized in three main domains ranging from the micro-scale of the streetscape, to the spatial organization and accessibility of amenities, services and public transport, and the availability and proximity of suitable housing. The research has also evidenced that there is scope for improvement in these domains to further support older people's well-being and a range of recommendations for urban design interventions in high streets can be suggested (Brunelli, Smith, and Woolrych 2022). To make these locales more age-friendly and to support older people's well-being it is desirable to: make the public realm more inclusive, pedestrian-friendly, and integrated with public transport infrastructure; actively support the clustering of amenities, shops, services, and bus stops, anchored to a day centre/local hub; encourage attractive shopfronts to support a welcoming and safe atmosphere including the externalization of activities, for example, adding opportunities to sit outside; and increase the provision of affordable housing near and/or on the actual high streets. To make these recommendations specific to different locations a 'capability' approach between research and design (White and Hammond 2018) can be pursued involving residents and stakeholders in the co-creation of action plans, focused on how we can integrate the physical and social urban fabric so spaces can provide opportunities for active ageing whilst bringing communities together, for example, in intergenerational ways.

The paper has strengthened the link between the literature on the revival of the high streets and the age-friendly cities movement. Yet, this study was based on a limited choice of case studies excluding other more diverse urban contexts where for example urban form, density and greater diversity of participants in terms of ethnicity, abilities and cognitive impairments may differ from those discussed in this paper. The insights gained from this

study can be strengthened by further research on a wider range of high streets in different cities and towns capturing the experience of a more diverse population.

Notes

1. This was part of the 'Community Connect' programme in Leith financed by City of Edinburgh Council, which explicitly used local facilities in supporting older people after hospital discharge or bereavement to socialize and reconnect with the local community.
2. See https://ageing-better.org.uk/stories/age-friendly-nottingham-take-seat (Accessed June 2023)
3. Available at: https://noise.environment.gov.scot/noisemap/ (Accessed June 2023).

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