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Spatial planning and mental well-being: How to reduce social isolation and loneliness in urban environments

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KEY MESSAGE

Well-planned urban space can have a significant effect on mental well-being. Social cohesion and isolation are essentially geographic concepts expressing proximity and distance, which are related to spatial interaction patterns in addition to social interaction patterns. People-centred spatial planning alleviates social isolation. Mobility, green spaces and accessible meeting places facilitate social cohesion.

INTRODUCTION

The authors of the previous Estonian Human Development Report consistently pointed out that the growth of Estonia's largest cities, especially Tallinn, in terms of building stock and infrastructure often comes at the expense of public space and greenery, which are important for people's mental and physical well-being. Creating people-centred street spaces, parks and squares should be the most important starting point for shaping the urban space. The links between spatial planning, mobility and architecture and people's mental well-being deserve an in-depth explanation. So far, little attention has been paid to the interdependence of space and health in Estonia. This article looks at examples of spatial planning measures introduced in the Netherlands to combat loneliness.

The article focuses on older adults as the most fragile social group. Forecasts show that by 2050, every sixth person in the world will be over 65 years old. According to Statistics Estonia's data, as of 2021, almost a fifth of the Estonian population is over 65 years old, and this figure will rise to 28% by 2050 (Statistics Estonia 2019; 2022). At the same time, older adults are not the only ones at risk of social isolation. In individualistic societies, including Estonia, social isolation occurs in all age groups.

The results of the European Social Survey show that a fifth of Europeans experienced social isolation even before the onset of the COVID-19 crisis (d'Hombres et al. 2021). The problem is particularly prevalent in Eastern Europe, including Estonia. In the Netherlands, Denmark and Sweden, about 8% of the

population experience social isolation, while in Eastern European countries, such as Estonia, Lithuania and Poland, 35% of people experience social isolation. This is significantly more than the European average. Given the gravity of this public health issue, in 2018 the UK appointed the world's first minister of loneliness, tasked with developing measures to help raise awareness of loneliness and enable society to tackle it. As a result of the COVID-19 crisis, Japan has appointed a minister dealing with social isolation and related mental health problems. Creating a similar ministerial position has also been discussed in Australia (Purcell 2021).

There is a clear link between social isolation and spatial isolation. Physical distance from regular interaction opportunities, as well as working remotely, are factors that can cause or aggravate social isolation. Furthermore, spatial deficiencies in urban areas and rural centres can limit people's mobility, access to meeting places and interaction with others. The concept of social isolation refers to a situation in which a person rarely comes into contact with others (Fakoya et al. 2020). It is measured in terms of the size of the social network or the number of interactions in a day, week or month. Limited interaction and contact with other people may be the result of a person's limited social network, limited mobility, physical distance or limited access to meeting places, among other factors. Research rarely discusses the link between spatial planning and design of the urban space

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and feelings of loneliness, because a direct link is difficult to establish. However, the COVID-19 pandemic unequivocally highlighted the importance of green areas in stimulating social cohesion. People all over the world crowded into city parks and green spaces outside the cities because the only way to meet friends, relatives or colleagues and spend time with loved ones outside the home was to meet outdoors. There is also ample research pointing to deficiencies in the built environment as an indirect cause of social isolation (Carmichael 2019).

The spatial dimension of social isolation and loneliness

Researchers have established a link between objective social isolation and feelings of loneliness. Loneliness is considered an epidemic of the 21st century (Heinrich and Gullone 2006; Sisask and Roosipuu 2019). It is an emotional experience: 'loneliness is a continual subjective feeling that something important is missing in life' (Sisask and Roosipuu 2019). Some researchers (Hawthorne 2006) classify loneliness as a form of social isolation (loneliness is subjective social isolation), while others (Heinrich and Gullone 2006) argue that loneliness is an emotional response to social isolation.

Loneliness is a health risk, as many links have been found between loneliness and general mortality rate and health status, as well as more specific medical conditions in older adults, such as frailty, cardiovascular diseases, depression and decreased cognitive ability (Sisask and Roosipuu 2019). In Europe, 6% of the population report that they do not have anyone close to them whom they could ask for help in case of need (European Commission 2019). According to the Office for National Statistics, in the

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United Kingdom, young people aged 16 to 24 feel more lonely than older adults aged between 65 and 74. A report by the UK Loneliness Commission found that around 14% of the population often or always feel lonely. Loneliness and related (health) problems are very costly to the state. In the United Kingdom, for example, the annual impact of loneliness on the national economy is estimated to be 36.5 billion euros (Kodama 2021).

Social cohesion and isolation are essentially geographical concepts that describe how people interact – either face to face or at a distance. Therefore, in addition to interpersonal patterns of interaction, these concepts also relate to spatial interaction patterns. Cohesion can be analysed by measuring distance or proximity – for example, the distance between a person and their family and friends whom they regularly meet face to face. It is also possible to analyse it by measuring the distance between, for example, the daily living environment and places of interaction (e.g. public spaces and green areas). Cohesion can also be described in terms of accessibility – for example, in terms of the opportunities that (urban) space offers a person to be in contact with members of the local community. Accessibility refers to a person's ability and resources to reach certain places (of interaction), combined with the characteristics of these meeting places, including the existing (physical) infrastructure (e.g. accessibility with a stroller or walking frame).

Spatial planning has a 'toolbox' to reduce social isolation

Urban planning prioritises safeguarding the availability of services and places necessary for the well-being of all members of society. This includes facilitating opportunities for all social groups to meet other people (Bhugra et al. 2019; Litman 2021). A well-planned urban space can help prevent and alleviate feelings of loneliness by providing varied, health-promoting spaces, including places to be alone, where it is possible to be in contact with surrounding urban life without necessarily having to actively participate in it. The urban space can be an environment that brings balance to life by offering diverse opportunities for both solitude and social interaction. The strategic placing of benches in streets, parks and other public spaces can, for example, help alleviate and prevent social isolation and loneliness for older adults by creating a supportive environment (Gilroy 2021; Steels 2015; van Hoof et al. 2018). In Estonia, a common destination designed with older adults in mind is sports- and playgrounds: every year more and more fitness equipment specially designed for older users are provided. Such places are also expected to facilitate intergenerational interaction.

The importance of spatial planning in stimulating social cohesion is well illustrated by Jane Jacobs' (1961) study on New York City, which is widely known

Urban space can be a balancing environment that offers diverse opportunities for both solitude and social interaction.

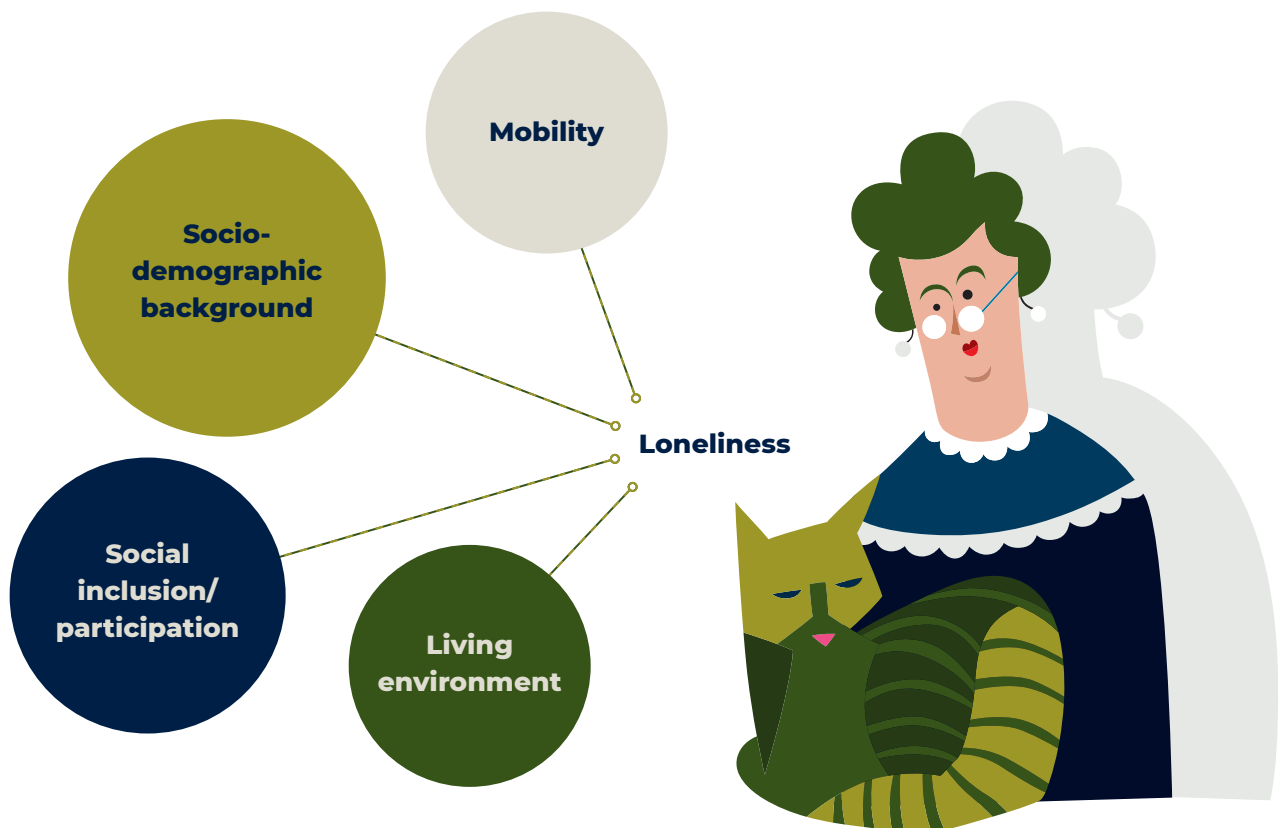
and used among urban planners. Jacobs found that well-planned footpaths and green spaces help facilitate neighbourhood interaction and reduce crime, thereby increasing the sense of security for both local residents and visitors. Direct face-to-face interaction and meaningful communal activities are indispensable for creating meaningful relationships and social cohesion (Smith 2015). Meaningful relationships, in turn, reduce loneliness. Direct interaction requires that people have opportunities to meet and places available that create such opportunities. Accessible urban space ensures equal opportunities for mobility and enables even the members of more fragile groups to move independently (see Estonian Human Development Report 2019/2020).

In Estonia, good examples of spaces enhancing social cohesion include community gardens (city gardens) and the

reconstruction of city squares as part of the Good Public Space project, which has seen the central squares and main streets of several cities and small towns renewed through architectural competitions. These public space reconstruction projects have focused on improving the quality of the urban space and thereby increasing the towns' and cities' competitiveness – in other words, attracting tourists and creating a more valuable and functional public space for locals.

For communities to embrace and actively make use of the urban space, it is crucial to involve local people in the spatial design process.

Figure 5.3.1. Factors affecting feelings of loneliness among older adults



SOURCE: figure adapted by authors (based on Kemperman et al. 2019)

At the same time, several of these public space revitalisation projects have also aimed to improve the opportunities for social cohesion, reviving the city centres by providing citizens reasons to meet and spend time in the urban space. The central squares of Kuressaare and Kärđla are good examples. However, only modest awareness of the importance of social cohesion has been shown when designing these city squares; the primary focus has been on architectural integrity, attractive design solutions and boosting the economic environment. For communities to embrace and actively make use of urban space, it is crucial to involve local people in the spatial design process. Throughout this article, we will zoom in on good examples of conscious efforts to make the urban environment supportive of social interaction.

Well-planned urban environment is a cornerstone of reducing loneliness

Spatial planning in the Netherlands has a long history and significant achievements in dealing with today's environmental and social problems, including social isolation. In this paragraph we explore some of the planning solutions used to combat social isolation and loneliness in the Netherlands. Floris Alkemade, who worked as the Chief Government Architect of the Netherlands between 2015 and 2021, has declared: 'I am convinced that with better design and planning of both our housing and the general living environment, it is possible to reduce loneliness. As the Chief Government Architect of the Netherlands, I call on architects and planners to actively address this challenge.'¹ The nationwide competition Who Cares, launched by Alkemade, focused on creating and designing modern and innovative solutions to problems related to social welfare and housing. The competition prioritised solutions that were in harmony with not

HEALTHY NEIGHBOURHOODS (GEZONDE BUURTEN)

The Healthy Neighbourhoods project created places in various Dutch cities where social interaction, play and nature intertwine to increase the social cohesion of neighbourhoods. From concept design to realisation, each individual project is managed and implemented by the residents working with the local municipality. Experts and volunteers from Janje Beton (a national charity that creates playgrounds for everyone), the Institute for Nature Education (ivn.nl) and the JOGG initiative (jogg.nl) support local residents and municipalities in creating healthy neighbourhoods. The project is financed by the Dutch Ministry of Health, Welfare and Sports. Between 2018 and 2021, a total of 12 healthy neighbourhoods were created in eight municipalities.

¹ NPO Radio 1 podcast, 31 July 2020.

only the local identity and community, but also with the spatial structure and possibilities of the neighbourhood.

The Dutch government has paid attention to the quality of the living environment for years, for example, setting up the national programme and funding scheme Together against Loneliness (Eén tegen eenzaamheid), which, among other things, aims to motivate municipalities to address social isolation. The main purpose of the programme is to solve loneliness-related problems among older adults. A national campaign was organised between 2018 and 2021 to raise awareness of loneliness as a serious public health problem. Every year, an interim report on the programme's effectiveness, achievements and challenges is submitted to the Dutch government. The 2021 impact assessment report stated that loneliness among the Dutch was on the rise due to the COVID-19 crisis (Nivel

2021). Compared to 2016, loneliness has increased by 1 percentage point among older adults (from 55% to 56%) and by 4 percentage points among adults (from 43% to 47%). As the programme focused on older adults, the increase in loneliness between 2016 and 2020 was more noticeable among young people aged 18 to 34 (Dutch Parliament 2021). The national programme has been extended until 2023. The text boxes and photographs in Figures 5.3.2–5.3.4 show examples of specific spatial planning measures and projects implemented to combat social isolation and loneliness in the Netherlands.

In recent years, the planners of the municipality of Groningen have implemented spatial interventions in public space in order to reduce social isolation. In 2021, outdoor chess tables were installed in squares and parks (Figure 5.3.3). Anyone can learn to play chess, regardless of income, age or origin. It is consid-

TOGETHER AGAINST LONELINESS (EÉN TEGEN EENZAAMHEID)

At the end of 2022, a small pavilion called Michi-Noeki was built in the Oosterparkwijk neighbourhood of Groningen (Figure 5.3.2). It is a place where people can stop and rest, drink coffee, tea or water, talk to each other, meet new people, use the toilet, and get information about what is going on in the area. The pavilion is built at the hub of the area, a place where a grocery store, a church, a convenience store, a flower shop and a fast food stand are located. Michi-Noeki was designed as a place to create opportunities for locals for casual meetings, conversations and making connections between different individuals and social groups living in the neighbourhood. Local residents can also participate as volunteers in initiating and organising activities in Michi-Noeki. The name and idea for Michi-Noeki were inspired by the traditional Japanese concept of a roadside station for travellers and merchants. Historically, Japanese *michi no eki* were places along the main trade routes where weary travellers could rest, eat, feed their horses and spend the night. The concept of a roadside station has survived to this day in Japan. Many *michi no eki* in Japan provide activities for the older residents of the surrounding area, who volunteer to serve food there. Groningen's Michi-Noeki was one of the winning entries in the 2018 Who Cares competition, and a large part of the project's funding comes from winning this competition.

Figure 5.3.2. The area where Groningen's first Michi-Noeki will be built



SOURCE: photographs by Elen-Maarja Trel, 2022

ered an activity that can bring younger and older generations together.

In 2020, the municipality of Groningen started a project to install 20 'chat benches' in the urban space in order to raise awareness of loneliness-related problems (Figure 5.3.4). The benches are

decorated with images and poems, and signs next to them invite people to sit and talk to each other. With the benches, the city government wants to draw attention to the issue of loneliness and reduce the stigma associated with it.

Figure 5.3.3. Outdoor chessboard in Groningen's Noorderplantsoen Park



SOURCE: photograph by Elen-Maarja Trel, 2022

Figurezz 5.3.4. One of the first chat benches in Groningen with a poem about loneliness, ‘Sometimes our words wander in no man’s land’



SOURCE: Beijumnieuws, 6 June 2022

Supporting mental health in old age requires an accessible urban space

Age-friendly communities are characterised by accessibility in terms of both the physical and social environment. According to the definition of the World Health Organization (WHO), an age-friendly city is a living environment where the physical and social environment and services support and enable active (healthy) ageing (WHO 2007). The concept of age-friendly communities is a holistic approach to physical space, the social environment, public services and other areas of life. Although the WHO initiative focuses on older adults (generally defined as those over 65 years of age), the concept actually covers the entire human life course. The WHO’s definition of age-friendly communities extends not only to cities but also to neighbourhoods, city blocks and village centres (WHO 2017a). Older

adults are a vulnerable social group for whom social isolation and loneliness are critical issues that affect mental health and quality of life. The WHO points out that more than 20% of people over 60 suffer from mental or neurological disorders, the most common of which are dementia and depression (WHO 2017b). This topic requires special attention because Estonia has Europe’s highest rates of depression among middle-aged and older adults (see Abuladze and Sakkeus in Chapter 2; Abuladze et al. 2019, p. 58). Depression can be caused by a decrease in well-being as a result of loneliness (see Kalmus et al. in Chapter 4; Tiwari 2013).

The concept of age-friendly communities is a holistic approach to physical space, the social environment, public services and other areas of life.

Loneliness among older adults in Estonia is associated with, for example, their relatively poor economic situation, poor health and self-reported health, depression and suicidal thoughts, and the absence of a social network (Sisask and Roosipuu 2019). Researchers also emphasise that moderate physical activity can significantly reduce feelings of loneliness. The SHARE survey (Survey of Health, Ageing and Retirement in Europe) shows that, based on the body mass index, more than half (67.1%) of the Estonian population aged 50 and over are overweight or obese. This indicates low physical activity, an unhealthy diet and/or poor health not allowing for enough physical activity. Promoting physical activity improves life expectancy. Even small amounts of moderate or intense exercise reduce mortality among people over 60 by nearly 22% (Kunder et al. 2016). Therefore, (urban) spaces that promote physical activity and support social relationships can be indispensable, especially for older adults, as they promote both mental well-being and physical health.

A qualitative study by Kajamäe (2019) identifies older adults' physical-activity-related concerns and the features they like in Tallinn's urban space. According to the respondents, the main factor affecting their mobility is the condition of footpaths. In winter, mobility is hindered by snow and ice that is not cleared from the footpaths regularly. Also, due to Estonia's changeable weather conditions, unremoved snow can melt in the

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sun during the day and freeze again at night, turning footpaths into icy obstacle courses for older adults. They fear slipping and falling, which could result in injuries that could take months to recover from. After staying home for a long period, older adults face the risk that they will not be able to restore their previous level of mobility when they recover and might end up confined in their homes with no physical activity.

'I don't know ... they say you should walk and you need to move. And it's true. I was sick recently, didn't go out at all, and soon stopped feeling like I wanted to go anywhere or do anything at all. I just wanted to lie in bed. But when you finally get that rhythm back, you feel so much better. You have to go outside.'

Older adults are also frustrated by drivers who splash pedestrians on pavements in rainy weather. This can be a reason why they do not choose walking in the city as a leisure-time physical activity. Another obstacle to physical activity may be a shortage of outdoor seats, their poor design or their complete absence in the urban space. For example, the benches installed at Tallinn bus stops are not user-friendly:

'The benches at the bus stops are bizarre; they're very short and cold. Bus shelters should obviously have wooden benches running wall to wall.'

The respondents tended to point to various green spaces as their favourite places in the city. They described these as places to meet and spend time. According to older adults, increasing the

number of green areas and regularly maintaining them would help make the urban environment more human-friendly.

When a vision document was drafted for Tartu as an age-friendly city, a survey was conducted to identify older adults' expectations regarding urban space, services and social inclusion and to map any bottlenecks requiring attention. The greatest developmental issues identified were older adults' lack of involvement in community life and the social isolation of older adults living alone. The survey also found that there are not enough attractive community hubs for older adults, and the ones that are there do not meet their needs. Another concern for older adults is their lack of digital competence and their exclusion from the information society. Limited physical accessibil-

ity, including access to and from home, a shortage of resting places in the urban space, and a lack of quality in public spaces were identified as the main hindrances to older adults being able to cope independently in everyday life and find social inclusion.

Although loneliness is not exclusively an old-age-related problem, the risk of social isolation, loneliness or both can cause life changes to pile up. Studies show that exercise and walking support the preservation of cognitive functions and that a person's motivation to get out of the house is, in turn, increased by the presence of attractive destinations in the immediate vicinity. This supports the physical activity and functioning of older adults and reduces their risk of social isolation.

SUMMARY

Older adults' ability to cope in the urban space is an indicator for the entire society of how accessible the living environment is and how the city's residents are doing in terms of social cohesion. As the number of older adults increases, there is a greater need for an age-friendly living environment to enable active and independent ageing. Independent mobility (e.g. on foot, by bicycle or by public transport) is considered a critical factor in active ageing.

Barriers related to mobility indicate a possible risk of social isolation and thus also risks related to mental well-being. Traditionally, activities and services related to older adults and healthy ageing

are seen as part of healthcare or social work and so are handled by related institutions. However, the 'tools' of urban planning and urban design can directly improve the quality of life for older adults and thus enhance mental health.

Improving the conditions on footpaths, especially in winter, will give older adults more confidence to move outside throughout the year. Creating roads that are safe and stimulate active mobility should be a key factor in any strategy for an age-friendly city. Streets and buildings without barriers or obstacles to accessibility (e.g. low kerb stones and ramps, and handrails on stairs) facilitate independent mobility (including

vigorous physical activity) and socialisation for older adults, young people and people with special needs. In addition to obstacle-free streets, other factors, such as seating and public toilets in the urban space or readjusting the cycle times for traffic lights to allow more time for pedestrians, also help make cities friendlier. The Dutch examples encourage paying attention to the immediate neighbourhood when addressing social isolation, creating healthy neighbourhoods in cooperation with local residents and designing specific meeting places where residents have a reason to stop and perhaps have a chance encounter with their neighbours.

The methods for improving the quality of urban space examined in this article are just some of the many ways to get people to spend more time in the urban space, alleviating social isolation. Such improvements in spatial quality, including the Dutch chat benches or outdoor chessboards, are important not only for older adults but also for other city dwellers, including children and young people, and parents with strollers.

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A well-functioning network of bicycle paths and small features such as dropped kerbs at crossings are examples of urban design techniques that can increase accessibility (Litman 2021).

According to research, Estonia suffers from a very high level of motorisation and a lack of social cohesion, which points to shortcomings in the planning of our living environment, among other things. An urban space that facilitates independence and creating meaningful social contacts is vital to supporting mental well-being. ●

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