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# The relationship between living environment and daily life routines of older adults

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## Abstract
The population has been ageing dramatically since 1950s. Therefore addressing age-friendliness has become an important approach in every country. Since a significant proportion of the global population lives in urban areas, it is necessary to highlight the importance of designing neighbourhoods to meet the needs of older adults. This study reveals the relationship between the urban environment and the daily routines of elderly people, differentiated in terms of income level. The study addresses not only the fundamental aspects of neighbourhood design in relation to ageing in place but also how income level affects the ability to be an active citizen in the community. This research used in-depth interviews to compare the experiences of older adults (aged over 70) living in Fatih and Nisantası, two neighbourhoods of Istanbul, Turkey, which are divergent in terms of both income level and urban design features. The findings reveal that living in an neighbourhood that does not support basic needs, such as green open space, housing, social activities, may lead older adults to isolate themselves from community. On the other hand, being able to access urban facilities easily and having a higher income level or financially independency increases older people's engagement in paid leisure activities, engagement to the city and level of sociability. This paper delivers that the ability to be active in later life is considerably influenced by both living environment and income. Also, enhancing the physical infrastructure of poorer neighbourhoods may have a proportionally greater impact on older people's wellbeing.

## 1. Introduction

Due to declining birth rates as well as death rates, investments in medical research, availability of pension funds and urbanisation, a rapid increase in population ageing has been experienced globally during the last century. According to a United Nations report (2017), the number of older people is expected to reach 2.1 billion in 2050 - nearly double the number in 2017. Since an increasingly ageing population is seen as inevitable worldwide, it has become a subject of debate in many disciplines. The transition in the demographic share of elderly people is bringing new requirements in urban structure, such as ensuring accessibility to basic services, improving green infrastructure and providing a healthy environment. Governments should be prepared for ageing populations in order to achieve sustainable development goals and targets such as improving wellbeing and health services at all levels of age, gender equality, accessibility to decent work for all and reducing poverty and inequality within each country. Governments need to create new policies and plans for including older people in development goals, specifically public services, health services and environmental design.

This study aims to highlight the relationship between the urban environment and older adults' daily life routine. This research claims that urban space can influence elderly people's activities in many ways, for example, either by isolating them from the wider community or by promoting active ageing. Additionally, this work examines the ways in which income level affects the ability to engage in later life activities and questions the impacts of neighbourhood design on the daily routines of elderly people living in different urban environments and with different levels of income through a depth-interview with older adults aged 70.

## 2. Literature review

In order to provide an organised literature review for this study, I have defined the specifications of age-friendly communities and environments into three categories: 1) aiming to ensure that age is not an obstacle for older people to continue their social and outdoor activities over the long term; 2) providing access to adequate living accommodation that meets the physical, social and health needs of older people; 3) providing support for older people to engage with new opportunities to enhance their wellbeing (Lehning, Chun, & Scharlach, 2007).

Category 1 is concerned with the line between the health issues of older adults and their living environments such as urban design and safety. Ross and Mirowsky (2001) suggest that living in a disadvantaged neighbourhood is associated with weakened health. Also, elderly people are more open to vulnerabilities relating to urban structure because adverse urban environments can directly influence their physical and psychological health and contribute to chronic diseases (Beard et.al., 2012). Balfour and Kaplan (2002) support this idea by expressing that the loss of lower-body function is strongly associated with residing in a neighbourhood with multiple problems such as inaccessibility to green open space, inadequate public transport, and lack of community support and leisure activities. Older people are generally eager to be active and remain independent in their society as long as possible, however, their ability to do this depends not only on their condition of physical and mental health but also on the state of their urban environment. Therefore the urban environment should be specifically designed and managed to meet older people's needs (Lawton & Nahemow, 1973). This means that if an older person has a lack of physical ability to perform their desired daily routine, the city can provide an environment that still allows them to remain active and independent in their society. For instance, a well-designed street with suitable disabled access and transportation facilities between different services can help older people live their life independently. In other respects, a positive environment also provides community engagement and other activities that allow older people to be more integrated and continue to contribute to society. The existence of green public spaces and their accessibility from residences also increases social interaction and well-being (Kweon, Sullivan, & Wiley, 1998).

This kind of evidence has led researchers to a new perspective called healthy ageing which is defined as *"the development and maintenance of optimal physical, mental, and social well-being and function in older adults"* by Lang et al. (2006, p. 3).

A person's health can be seriously affected by a deprived neighbourhood (Ross and Mirowsky, 2001). For example, urban environments with adverse conditions such as heavy traffic, high noise levels, crime and inadequate design can cause health impairment for older people (Balfour & Kaplan, 2002). In order to address not only the needs of older people but also to increase quality of life for all in communities, neighbourhoods should be attractive and inclusive in terms of urban design, safety, walkability and accessibility to all activities; they should also have adequate public transportation and provide greenery (Hunter et al., 2011). Additionally, The American Association of Retired Persons (AARP) defines a liveable community as one that *"has affordable and appropriate housing, supportive community features and services, and adequate mobility options, which together facilitate personal independence and the engagement of residents in civic and social life"* (Kochera, Straight, and Guterbock, 2005, p. 60). Many older people want to remain where they live for their lifetime; therefore, neighbourhoods should include suitable facilities in public spaces, such as outdoor spaces created from natural landscapes and topography, and natural planting schemes. Additionally, streets need to be visually clear; good lighting is important for safety and accessible urban furniture should be provided in a pedestrian-friendly environment (Lee, 2007). As well as the importance of adequate design, a neighbourhood needs to provide grocery stores, green and open spaces, social activities and health services such as pharmacies within a walkable distance of residences; and should be efficiently connected to other neighbourhoods, enabling elderly residents to visit friends and family.

In terms of neighbourhood safety, elderly people are more vulnerable to abuse and crime, which may adversely affect both mental and physical health.

For example, Quinn (2008) states that older people may be afraid to step outside and walk around when they perceive high levels of violence and crime in their neighbourhood.

A liveable community needs to have several mobility choices in order to allow all ages from the community to connect with each other and join in activities. Being able to commute independently helps older people to be better connected to their communities, which enhances their mental health (Panter et al., 2011). For this reason, the accessibility of public transport is vital for non-drivers aged 50 or older to connect them with relevant activities. Many older people require public transportation to be *"affordable, accessible, adaptable, available and acceptable"* (Kochera et al., 2005). In an attempt to guarantee mobility freedom for older people, an efficient public transportation network needs to deliver commuting between neighbourhoods, as well as access to daily needs such as grocery stores and other shops, leisure activities, healthcare facilities and social activities. In terms of mobility freedom, streets must be barrier-free. Neighbourhoods should not restrict or exclude the participation of elderly citizens in daily social and economic life (Beard et al., 2012).

Category 2 refers to the importance of adequately designed homes, which enable occupants to live without facing an obstacle based on their changing needs over their lifetime; furthermore, Universal Design (UD) principles, created by professionals in North Carolina State University in 1997 to be adaptable to different disciplines such as communications and urban design, highlight the need for good design of structures, products and neighbourhoods that ensure individuals can perform daily activities and routines despite functional disability (Hunter et al., 2011).

UD produces seven comprehensive principles (Story, 2001): equitability, flexibility, simple and intuitive use, perceptible information, high tolerance for error, low physical effort, size and space approach to use to make products and environments accessible; moreover, it brings older people and disabled people together and aims to deliver design solutions that are equitable and inclusive

and do not stigmatize them (Lee, 2007). UD created seven major principles for all disciplines focusing on the built environment and products to guide the design process, providing guidelines for education and evaluation of designs (Story, 2001).

The major aim of these principles is creating a notion that embraces the diversity of human nature and can be applied to all design disciplines. So older people's needs and demands can be adopted within housing design. For instance, houses need to be step-free at the front entrance or lifts should be available; a lower platform should be provided in the bathroom, and tables and stores in the kitchen should be easily moveable. UD principles are the main guidelines available for architects to design homes suitable for older people (Salmen, 2001).

Category 3 emphasises the importance of sociability and community support, both of which can be directly linked to the concept of active ageing that was developed by World Health Organisation (WHO) at the end of the 1990s. Active ageing has positive effects on physiological and physical health, helping to prevent chronic diseases, as well as increasing life satisfaction. Sociability plays a key role in maintaining psychological wellbeing and reduces emotional stress (Khosravi, Gharai & Taghavi, 2015). It is defined by Gehl (2011) as informal gathering with people in a place for activities such as eating, sitting, chatting together. When these activities are also supported by built environment features, the physical and mental health of older people can be improved and this may result in reduction of social isolation and feelings of loneliness. Additionally, sociability that is linked to physical activity such as walking also has positive effects on wellbeing (Parra et.al., 2010). Therefore, the ability to socialise easily also needs to be enhanced by urban design and environmental features in order to increase the wellbeing of older people.

To sum up the literature, the key concepts relating to the relationship between ageing and the built environment are elaborated and organised in figure 1 to provide a theoretical framework. Firstly, the essential needs or an older

person are listed as keywords and categorized into themes. Health issues and environmental interactions lead us to a range of design principles, the need for adequate housing and public transportation which can be explained in terms of comfort and images of an urban environment where an elderly person can easily engage in their necessary and/or preferred outdoor activities. Social aspects of life also need to be supported by the living environment that supports older adults to engage with the wider community. As a result, we have determined four essential points as a starting point of this study. These are *sociability, accessibility, comfort & image and outdoor activities.* The structure of the framework is influenced by the diagram developed by an organisation of Project for Public Spaces which provides a diagram for people to critic a place good or bad (PPS, n.d.).

Figure 1 represents the main theoretical framework of this research which we have drawn from the literature. The keywords in the figure are also directly related to interview questions that participants were asked to give information about their daily life in the urban environment.

*Sociability* relates to the social and cultural activities of elderly people in their daily lives. This section questions whether or not elderly people are participating in organised group activities - for example, spending time in a social venue or gathering with friends or relatives for a group activity such as a picnic or playing a game. It also relates to the ability to access certain facilities provided by the urban environment, such as museums, cinemas or theatres and reveals the social network of older adults. Briefly, this theme is concerned with more collective activities that are performed with the person's social network and experienced within the urban environment. As explained in the literature review, social interactions are the key to the quality of life and healthy ageing.

*Accessibility* represents the ability to access key services such as different modes of public transport, health services and social services and green spaces, in terms of the existence of the services, their physical accessibility
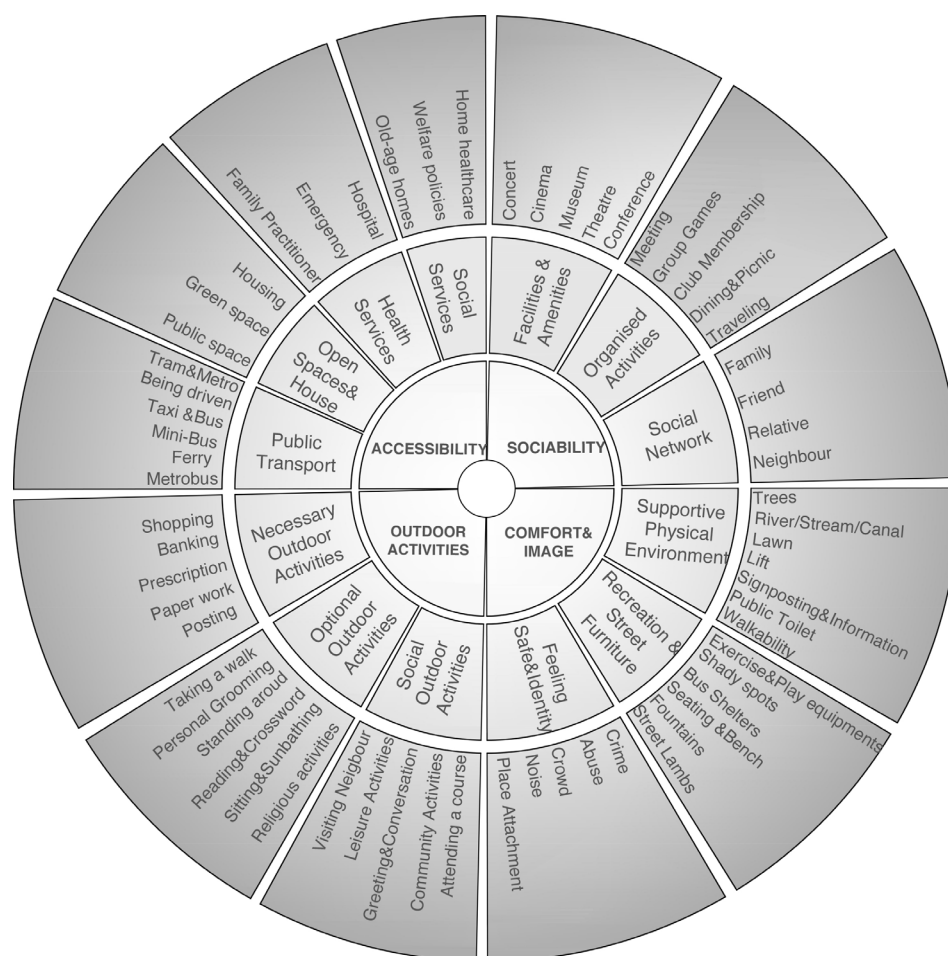
**Figure 1.** *Theoretical framework of the research.*

(e.g. distance from home) and their affordability. In later life, accessibility to these services is fundamental since it supports retention of mobility. This theme is an external factor that has a strong influence on an older person's life. In parallel with this, accessibility to urban needs and retaining mobility is the first step to sociability that carries individuals to venues for socialising, enhances participation and strengthens the social network. In order to complete daily activities such as shopping, religious activities, personal grooming, etc, the living environment needs to provide sufficient infrastructure such as walkability, quality open space and safety.

*Comfort& Image* aims to highlight neighbourhood quality to support the activities of older people. These can include the availability of green environments and facilities such as public toilets or lifts. Examples include shady spots, benches or other kinds of seating areas help elderly people to rest while

having a walk and encourages them to spend more time outside of the house. Additionally, more age-focused design features such as open green parks and enhanced walkability of urban environment support active ageing. Also, since they feel more vulnerable and fragile, feeling unsafe for any reason related to the urban environment can easily affect older people's health and can lead them to isolate themselves from the urban environment and being active in outdoor activities.

*Outdoor activities* here is used as suggested by Gehl (2011) based on relativity to the urban environment. Necessary outdoor activities such as shopping, banking and posting can be done regardless of the quality of urban space. On the other hand, optional outdoor activities such as taking a walk, sitting & sunbathing, religious activities need to be encouraged by the design of the place to a significant degree. Usually, necessary and optional outdoor activities can be performed un-

accompanied. Social activities can also happen spontaneously in urban place; however, take place with other people; for example, greeting each other, meeting with a neighbour, attending courses. Thus, the outdoor activities section aims to reveal the daily activities of older adults in the urban environment.

## 3. Methodology

Istanbul, as a metropolitan city in Turkey, has been experiencing population growth as well as demographic changes since the 1960s. In 1960 the population was only 1.5 million and it reached more than 15 million by 2018 (TUIK, n.d.). According to statistics in 2018, 15 million people live in Istanbul and it is expected to increase by 16.3 million in 2023 (TUIK, n.d.). Furthermore, the number of older adults has been increasing dramatically over the last few decades. In 1990 the number of people aged 55 and above was 699,331 and it was expanded to 964,394 in 2000. In 2010 and 2018 the volume is more than a million, 1,738,203 and 2,253,713 respectively (ibid). As well as population, urbanisation in Turkey has also been increasing rapidly since the 1950s and since the 2000s local governments and national government in Turkey have been promoting age-friendliness.

In order to understand how the living environment affects the activities of older people, two neighbourhoods in Istanbul, which differ in terms of income level and life standards, were selected as research areas. Fatih and Nisantası are the oldest and most popular neighbourhoods in the city and have historically been compared and criticized by novelist, academic, popular culture etc. over a long period. There are apartments in both areas but in Fatih, many apartments do not have lifts and are really old structures so they lack of basic needs of older adults. Also, social facilities are not in walking distance. Additionally, compare to Nisantası, income level is lower. In Nisantası, there are many facilities within walking distance, life standards are higher than Fatih and housing structure is comparatively new than Fatih.

In Turkish literature, the well-known novelist Peyami Safa published a book in 1931 named 'Fatih&Harbiye', which contains a comparative analysis of Fatih and Nisantası (also known as Harbiye) districts in terms of their cultural and economic differences. The history of Fatih goes back to the Byzantine and Ottoman period (Fatih Municipality, 2018). The area is also named Golden Horn, which is the core historical area of Istanbul. Golden Horn was the capital of the Ottoman Empire, therefore the urban structure and environment were shaped by the palace, madrasah, mosques and cistern. The structure of the area has been continued to the present time: there are many educational facilities, administrative buildings and a relatively supportive urban infrastructure.

After the Tanzimat reform era, the capital was located to the Beyoglu and Tesvikiye which now forms the centre of Nisantası today. Firstly, in 1856, the palace was moved to Dolmabahce and Yildiz, at the same time, all the high level of government officers started to locate in the Nisantası (Maggönül, 2006). Beyoglu triggered Nisantası to become more westernized. In the Beyoglu, there were many stores where people can find European items being the centre of nightlife and having more cosmopolitan demography. For many years, Nisantasi was the most popular area to live in, for those people who wanted access to these Western luxuries and lifestyles. There are many stores with luxury worldwide brands, expensive cafes and restaurants, as well as apartments with high rent values. It is also easily accessible via several forms of public transport and is a key connection point for other important areas such as university campuses, schools and parks.

We decided to conduct qualitative research for this study, in order to gather more detailed information about the daily life of older adults since it is more controllable and flexible. The participant can be led by the researcher to express more of their thoughts. Additionally, the in-depth interview is a qualitative research technique that can be used with a small number of participants in order to unveil their perspective relating to a specific idea, notion or situation (Boyce & Neale, 2006). Therefore, interviews are the key data

collection method of this research that can reveal a deeper understanding of older adults' daily life. The interview questions were generated from the theoretical framework of this study (figure 1) in a semi-structured format. We selected questions that were clear and not too complicated and also should not be defined with very explicit lines, to enable the elderly participants to express their thoughts without being unduly influenced by either the questions or the interviewer. The interviews were conducted during the summer of 2019 at the participants' homes; also, some participants were approached in public spaces to have an interview. The study required participants to be willing to take part in the study, therefore participants were selected based on the researcher's social network and their connections. The interviews were recorded by an audio recorder and were transcribed in Turkish and translated into English by the researcher.

According to the World Health Organization (WHO), the common definition of an elderly person is age 65 and over and this is accepted by most developed countries. It is also subdivided into age groups, as follows; 65-74 is defined as the *Young Old*, 75-84 is *Old* and 85+ the *Oldest-Old*. Gorman (1999) indicates that although chronological time has a vital role for old age, the retirement age (which is roughly the age of 60-65 in many countries) is accepted as the beginning of the old age. Therefore, the importance of chronological time receives less attention in many countries. He adds that the other meaning of old age is linked to the decreasing ability of physical roles, which is a significant distinction between age stages. In other words, old age starts when an active contribution is no longer possible. So, this study decided to interview older people aged 70 and above.

The interview transcripts were analysed based on the thematic analysis approach. The data for each neighbourhood was organised and listed under the four headings and compared critically. Participants were anonymised and coded randomly. Afterwards, the findings were evaluated and visualised on radar charts that support and conceptualise the findings. The thirteen subheadings, defined in Figure 1, were embedded in the chart. Each of them was graded from 1-7 (1 = lots of improvement needed and no contribution to the topic; 7 = no need for improvement), based on the answers given by each participant. Radar charts deliver a visual understanding of findings for readers and help to compare research sites.

## 4. Results

The results are presented through linking the thematic analyses and visualisation of findings on radar charts. For each participant, a chart was used to show the level of place attachments. Figure 2 and 3 represent how participants feel about their living environment based on categories; the findings can be used to underline specific policy and planning areas for improvement. Numbers in brackets indicate the age of participants. The results for each site were divided into the four themes outlined in figure 1: sociability, accessibility, comfort & image, outdoor activities, and compared with each other.

**Sociability**

With regard to sociability, the differences between the two neighbourhoods can be seen in Figures 2 and 3. Participants in Fatih tend to have less connection with existing *facilities& amenities,* are not willing to be part of *organised activities.* On the other hand, participants in Nisantası (Figure 3) show greater engagement with the city, participate in activities more often, and gather together with friends, colleagues and relatives for activities such as a trip to another city.

The participants in Fatih expressed that having conservations with friends who are also their neighbours while going shopping or walking route to the desired destination is the favourite way to socialise. The majority of participants said that they do not go to the museum, theatre or concerts and they do not travel abroad or other cities of Turkey at all. Most activities are performed inside of the home, such as having guests round or knitting. The key reason stated for this is that they think going to the cinema, concert etc. are for the younger generations, not for
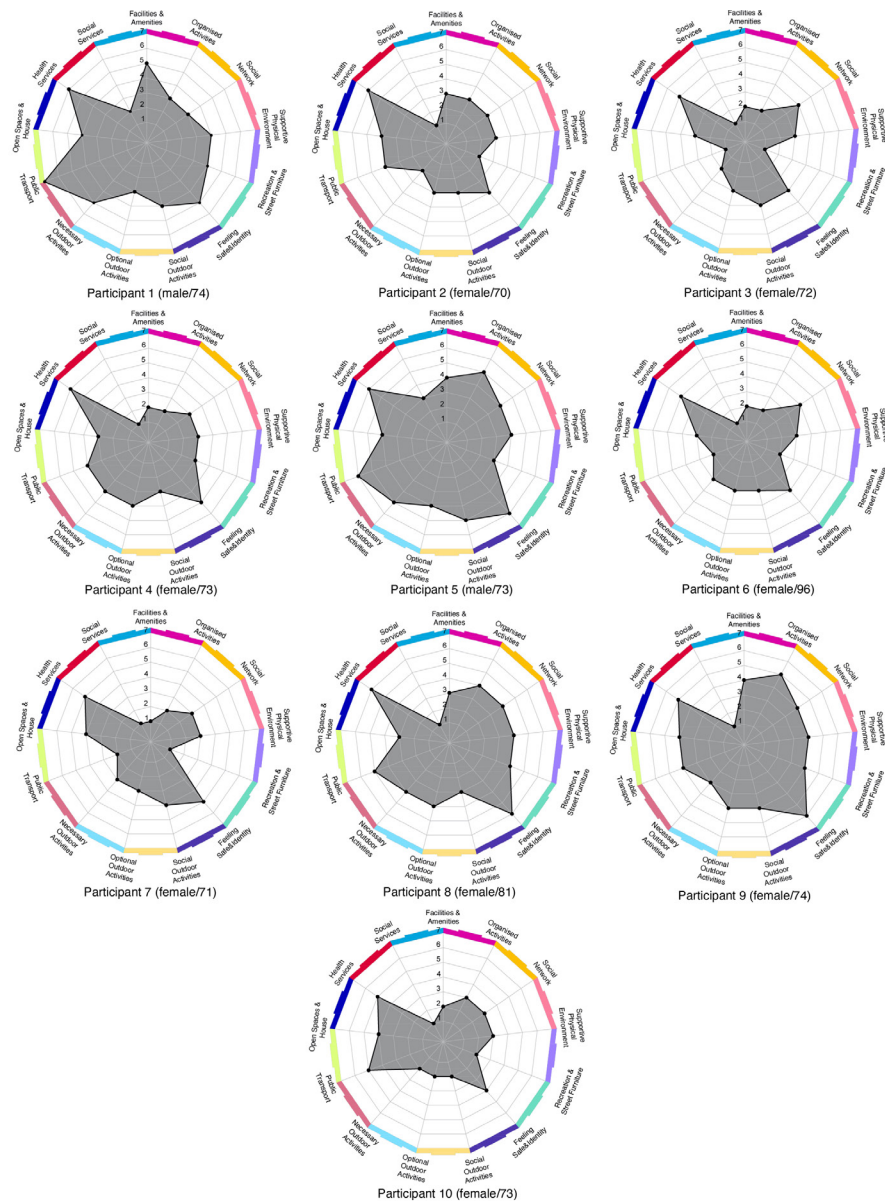
**Figure 2.** *Analysis of findings in Fatih district.*

older people. They enjoy having a little chat with their neighbour or a shopkeeper in the area. Although emotional attachment to the living environment is strong in both areas, the urban lifestyles are considerably different. Participant 1 (74) who retired from a bank office, in Fatih, describes his social life as *'with my friends, we see each other and talk while we are walking to somewhere we want to go, otherwise, we don't go anywhere else.'* Also, Participant 8 (81) who is a retired plumber says that *'Every day, I come and sit at the park because I need sun, read my Quran and in the evening I go to the mosque'.*

On the other hand, findings in Nisantaşı show a marked difference in lifestyles: participants spend more time with friends and socialise outside of the home. Participant 16 (90) who is a retired lecturer, in Nisantası, indicated that he spends time with his ex-work colleagues in discussing various subjects. He has many friends and relatives, whom he meets at the café and also enjoys going to the theatre, concerts and musicals with them. Participant 13 (79) and Participant 17 (85)-both have the highest level of retirement pensions, also said that that they have many friends and they often meet with them to go to the cinema

and for breakfast. Participant 12 (71) has visa and immigration consultancy office added, *'I have many shopkeeper friends on the street where I live, we see each other every day and have quick little chats'*. The interesting expression made by Participant 20 (73) was that *'I like chatting with my friend while sitting in a café. Being able to talk to each other is the best thing for our mental health.'*

**Accessibility**

As it can be seen in Figure 2 and Figure 3, the participants in both areas have common concerns in terms of public transport. Since public transport is free for people aged 65 and over, money is not an obstacle; however, due to some health restrictions among older people, taking a

bus or underground can become a problem. Participant 4 (73) housewife with a pension, in Fatih, said that *'I could not use the tram before but now I am taking the pills I can easily take the bus but I cannot go far'*. Some challenges go beyond health issues - for example, Participant 3 (72) housewife with no income, said that her husband is so jealous that he does not let her use public transport and he gives her a ride every time. In Nisantası, participants highlighted another issue: even though there are enough public transport modes, older people prefer to take a taxi to avoid crowded places, but the problem is that the taxi drivers do not stop very often because they are waiting for tourists.
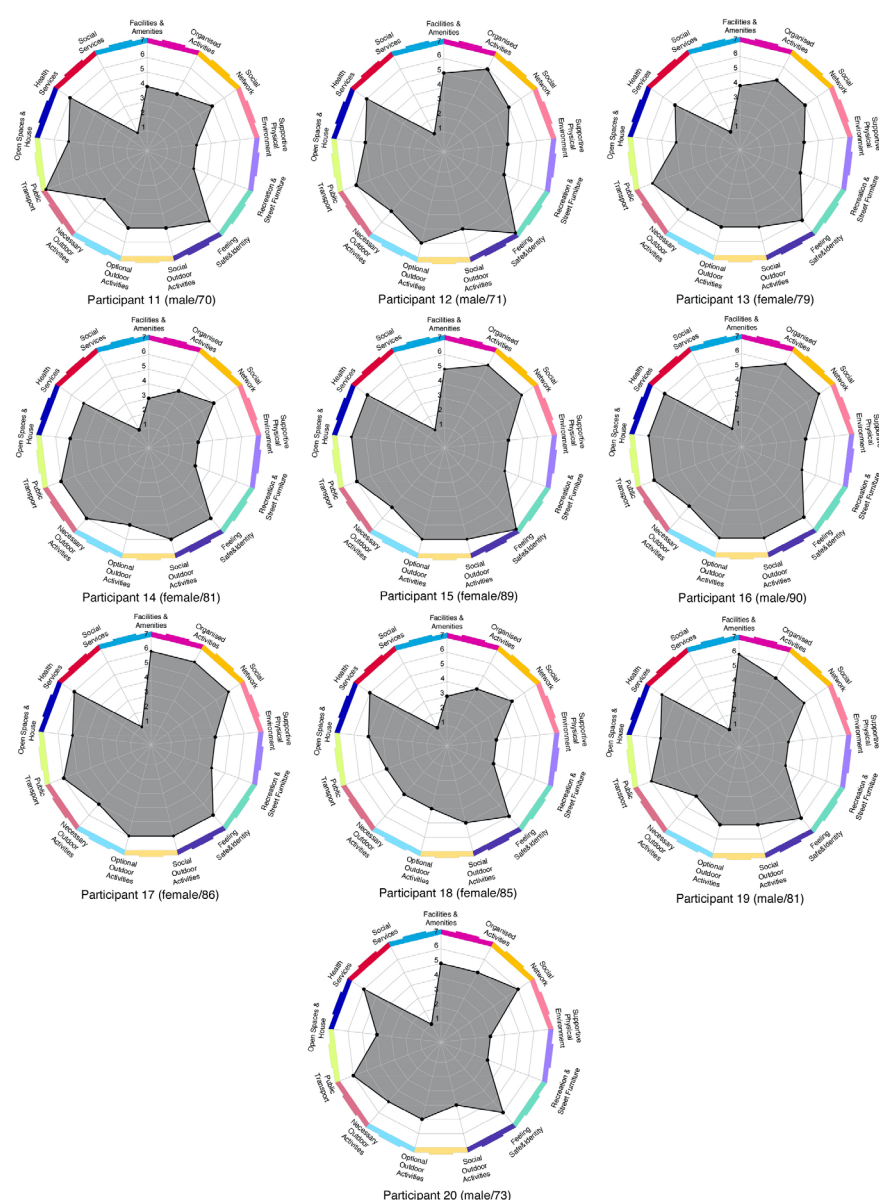


***Figure 3.*** *Analysis of findings in Nisantası district.*

The relationship between living environment and daily life routines of older adults

Not being able to access open green space is also a common problem. Participant 1 (74) and Participant 2 (70) housewife with no income, in Fatih, said that even though there are not enough parks, there is nothing they can do about it. Participant 6 (96) who has retirement pension and Participant 3 (72), both in Fatih, raised concerns about safety issues. Participant 3 (72) said that *'Yes there are parks around here but I have never sat there and never will. Refugees are everywhere. We are not the kind of people that sit outside, only at home.'*

The participants in Nisantası also have complaints about the lack of green open space. Although there is a park, participants expressed that it is not enough regarding to size and it is not even within walking distance of their homes. Instead of sitting in a park, they prefer to sit in a café where they are known by the other customers and staff. Participant 11 in Nisantası (70), has a hardware store, said *'the park has been abridged like abridging kite tail'*. Participant 14 (81) added that there is a park but it is not sufficient enough, and she could do nothing about it.

Housing structure in Fatih is old, and many buildings suffer from lack of daylight and no not have lifts. For example, Participant 8 (81) said, *'Every day, I leave my house early in the morning and come and sit in the park because I need sun and my flat on the ground floor doesn't have enough daylight'*. The participant also expresses that he would like to move to a new flat if he had enough income. Participant 4 (73) said that *'I am a tenant and I wish I could buy my flat, then I could live on my own, but I only receive a retirement pension which is not enough'*. Participant 7 (71) has widow's pension also moved to a flat on the first floor as there was no lift at the apartment. Participants in Fatih, therefore, show that they have adjusted their lives according to the urban environment due to the lack of adequate housing and their lower incomes. However, in Nisantası participants have access to several housing options and are usually more financially able to move to another flat if required.

In terms of accessing health services, participants in each neighbourhood highlighted that they do have easy access to the hospital or to a practitioner from where they live, therefore they are not willing to move to another neighbourhood (where access might be more difficult). Additionally, all participants expressed that they would never want to live in a care home or facility for older people. They also added that the social services provided by the local government are only for older people who are bedridden or lacking in mobility.

**Comfort& Image**

The main concerns raised about comfort and image are a lack of open green space, neighbourhoods not being walkable due to the height of the pavements and lack of public seating areas.

In Fatih, Participant 9 (74) who has retirement pension said, *'pavements are high but I try to adapt myself as much as possible and I try to find level areas to walk'*. Participant 6 (96) indicated that she cannot walk on the street without her walking stick and she takes a bus or taxi to the park to watch the fountains. Instead of visiting parks, many participants in both areas prefer to spend time with a friend sitting at home or in a café or restaurant. Another reason for not walking is that they cannot find a bench in the streets, only in the parks. In Nisantası, some hilly parts of the area make it difficult to walk around. Participant 16 (90) in Nisantası underlined that the heights of pavements are much too high for older people. Both areas are considered to be well-designed in terms of lightning and signposting.

All participants indicated that they are not willing to move to a different neighbourhood, or even a different home, because they have lived in their homes for a long time so they have memories associated with their own home and neighbourhood that are important to them. Participant 10 (73) in Fatih said, *'I love this place. Everybody says "hi" when they see me'*. The responses are similar in Nisantası. Participant 15 (89) retired lecturer thinks that *'Nisantası is a place where you can go everywhere anytime you want. We*

*can go to the cinema, the theatre. We can go for a walk after midnight. Even if you are alone as a woman'.* Participant 17 (86) also added that *'This is a nice neighbourhood. Everybody greets each other. My children live here and I do not want to move. I have spent 15 years here'.* None of the participants were driving, so traffic was only a problem in terms of noise and pollution. However, safety is perceived as an issue in Fatih. Many of the participants expressed their reluctance to visit green open spaces and cited fear of immigrants as a key reason for this. Participant 6 (96) said, *"Why would I go to the park? The world has changed and people are different. They ask me if I live alone, where I live. These are bad times. I do not trust them…If I find a store I take a rest; there is a fountain pool at Aksemsettin. I sit there and watch the pool.'*

**Outdoor activities**

This theme questions the daily routines of older people in the urban environment. Necessary activities such as banking, posting and picking up prescriptions are mainly handled either by participants' children or by a janitor in both neighbourhoods. In Fatih, shopping at local markets, doing daily housework and visiting neighbours are the usual activities of the day. Walking to a certain place is considered as engaging in 'sport', and they do not have any impulse to do sports for health. They do not want to attend a course and they did not specify a reason. Social activities such as going to the cinema, visiting a museum are not preferred because of personal choices; Participant 10 (73) in Fatih said, *'the sound of the cinema annoys me, and besides I do not want to go alone. If it was free, it would cause a stampede'.* Participant 8 (81) also indicated that *'I can watch everything on TV, so why I should go to the cinema? Besides, even if it is free, I would never want to go'.* In Nisantası, outdoor activities and urban life are different from Fatih. During the weekend, Participant 12 (71) spends time with his wife, goes for a drink or to the weekly fish bazaar at Beyoglu. He rides his bike for four months during the summer season and he swims. During winter he walks around the Osmanbey and Pangaltı and also visits Aghia Sophia, Sultanahmet and Topkapı Palace

on Wednesdays. Participant 13 (79) attends lectures on Byzantine and Ottoman history at Istanbul University as a visitor. Participant 15 (89) is an active member of the university foundation. She is happy to go to the theatre if she can find a seat. Participant 16 (90) is a retired lecturer but still gives lectures on Tuesdays and Fridays until midday as an emeritus professor at the universities. Participant 17 (86) likes reading, watching movies and always looks out for new movies at the cinema. She also makes handicrafts to help raise money for educational scholarships.

## 5. Discussion

Active ageing is simply defined as people remaining where they are as they age (Davey et.al., 2004; Lecovich, 2014). Life satisfaction, active engagement and positive adaptation are the key components of healthy ageing (Phelan & Larson, 2002). On the other hand, Dowd (1980) highlighted that social participation and involvement in leisure activities is shaped by personal interests and that social activities are strongly influenced by the length of formal education the person has received and their field of occupation (Antonucci, Ajrouch & Birditt, 2006). Moreover, the level of income also affects the degree of active living and engagement with the urban environment. Ceylan, Kurtkapan and Turan (2015) indicate that due to receiving low increases in their retirement pensions, older people are facing more economic problems and therefore their living conditions are being negatively impacted. When older people have a high enough income level to provide for basic needs such as housing, mobility and healthcare, life satisfaction increases and their level of social engagement grows stronger (Ilgar, 2008) because depending on relatives or friends, either practically and/or economically, creates psychological pressure on older people that can trigger feelings of isolation (Onur, 2007). Poverty not only restricts people economically, but it also makes them more likely to feel apart from society (Kalınkara, 2016). Therefore economic conditions are also an essential factor for elderly people in terms of active living and engagement with the urban environment.

In this study, four essential aspects of living environment - sociability, accessibility, comfort & image, outdoor activities were analysed in order to reveal connections between the daily lives of older adults and living urban environment. These were examined in two neighbourhoods differing from each other in the type of urban environment and the educational background and living standards (especially income level) of their older residents.

Beginning with sociability: in Fatih, when it comes to the social perspective of older residents, although the urban structure provides facilities and amenities, the core social activities practised by older people consist of gathering together at home, or having conservations with friends while walking to a local place or visiting local bazaars. Their social networks mainly consist of neighbours as the people we interviewed did not have many relatives left and they do not leave the neighbourhood often. Therefore, social activities and group activities are reduced to taking place within their usual living environment. In contrast, the participants we interviewed in Nisantası have strong relationships with friends from their previous work and (for women) people whom they met through their husbands, rather than their direct neighbours and relatives. They generally choose to spend time together in different venues rather than meeting at home. Cinema, theatre and travelling as a group are the main activities mentioned. They often book travel tickets online and travel to other cities.

Having a more active social life also requires being able to travel around, which should be supported by the accessibility of the physical urban environment. Since travelling and mobility are important determinants of quality of life for elderly people (Banister & Bowling, 2004), the urban environment should deliver adequate public transport and multiple travelling modes. In both neighbourhoods in our study, public transport is frequently used by elderly people, however, findings in Fatih underlined that mobility can also be restricted by health problems or even jealous husbands. Therefore, as there is a strong relationship between the social and cultural participation of elderly people and urban environment (Richard et al., 2009), the immediate living environment needs to encourage walkability to basic facilities such as restaurants, corner shops, cafés and parks. Participants in Fatih underlined how they feel relaxed and happy while having a walk with their friends and consider this activity as the best thing for supporting their mental health. But they also added that being able to use public transport as they desire would enable them to connect to the city.

Adequate design of the housing is also an essential factor in the wellbeing of elderly people. Size, heating/cooling, insulation, availability of lifts in buildings and access to sunlight are some of the essential influences in the quality of the home environment for elderly people. Lack of appropriate (and affordable) housing stock for all income groups of elderly people can affect their health negatively (Howden-Chapman et al., 1999). Moreover, ageing in place can take place successfully in an urban environment where adequate housing and health care facilities are provided (Wiles et.al., 2011). In both neighbourhoods, participants pointed out that they have easy access to health care facilities in their neighbourhood but some participants would prefer to move to another step-free home in the same neighbourhood where they could receive more sunlight. As we mentioned earlier, the housing typology in Fatih mainly consists of old, detached properties and apartments with no lifts. Although participants are not willing to leave their neighbourhood, if they could afford to rent or buy a new place, they would want to live in a better standard home. It appears that due to receiving low rates of increase in of retirement pensions, elderly people are facing economic problems and therefore their living conditions are negatively affected (Ceylan, Kurtkapan, & Turan, 2015).

While housing, public transport, health services and social facilities are considered to be essential infrastructure capacities that should be provided within each neighbourhood. However other kinds of services and environmental conditions such as the

provision of street furniture such as benches, street lighting, public toilets, and levels of traffic and noise can also directly impact on the quality of life of elderly people (Phillips et al., 2005). In both neighbourhoods, participants commented that when they feel tired of walking they sit on a chair in a café or restaurant because there are no benches on the street. In rare instances where public benches are provided on the street, they are appreciated by elderly people. For example, in Fatih, Participant 4 (73) enjoys sitting on the bench right in front of her apartment, chatting with neighbours and she believes it is better than being in a park.

Since Fatih and Nisantası are central districts in Istanbul, it was unsurprising that participants were all aware of high levels of traffic congestion and noise. However instead of raising objections to this problem, they tolerate it, for example, Participant 1 (74) said, 'if you live in the centre of the city, you have to accept this situation'. They also consider that they are unable to do anything about the lack of green parks. Moreover, some participants in Fatih highlighted their fear of crime in parks due to the presence of immigrants and refugees. Some of the people we interviewed said that they did not want to visit parks because there are many immigrants and they do not feel safe. So isolation and exclusion of elderly people can also be triggered by fear of crime or abuse because they feel restricted to leave their homes (Scharf et al., 2003). Therefore, the safety of neighbourhoods needs to be considered as an inseparable factor from the state of the urban physical infrastructure (Pain, 2000).

There are some limitations to this study. First of all, interviews were conducted during the summertime, so this study does not specifically refer to the effects of adverse weather conditions such as cold, snow or rain that are likely to have a significant influence on daily life routines during the winter months. Additionally, none of the participants were disabled or had a severe limitation in their mobility; therefore there are no findings relating to the experiences of disabled persons within different urban environments.

This paper contributes to existing research through delivering evidence about the different levels of engagement with the city, showing that outdoor activities of older adults can vary based the nature of the urban environment and income level because it increases life satisfaction among elderly significantly (Aquino et.al., 1996). This paper suggests that improving urban environment in poorer neighbourhoods and supporting needs of older adults, would help enhancing the well-being and health of elderly people and also encourage them to get out more and socialise. Because findings in Fatih underlined that they spend more time walking in the streets rather than visiting social venues.

Although this paper focuses on the impacts of the urban environment on elderly people, findings also revealed another perspective. Cultural differences may also influence the daily life routine of elderly people. Because understanding and experiencing the living environment and the level of life satisfaction are influenced by individuals' background and experiences (Marans & Rodgers, 1975). Therefore, getting involved in new kinds of activities and exploring new places may not be an option for an elderly person. Therefore, old habits tend to remain the same, and older people continue to live in the same neighbourhood even if the urban infrastructure is not supportive of their physical needs.

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