

SPATIAL JUSTICE AND PLANNING A WALKABLE CITY: ADDRESSING BARRIERS FOR OLDER PEOPLE'S WALKABILITY

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Abstract

For ageing communities, a walkable city is vital to support their physical activities and social inclusion. Older people's rights to participate in urban space include rights to access the city centre. Redevelopment of city centres triggers a call to examine spatial jsutice for older people. The study focuses on Birmingham City Centre for two reasons that may overlook older people's rights and needs; 1) As the second-largest city in the UK, Birmingham is one of the most diverse and youthful populations, and 2) the city centre of Birmingham has changed rapidly from a Victorian industrial city towards a city that promotes cultural and business tourism and a revitalised public realm. This study conducted four focus groups and 45 semi-structured interviews with older people, and 11 semi-structured interviews with the practitioner and policy professionals, as well as analysis of key strategy documents, to explore the extent to which the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people. The empirical evidence reveals that older people found topography, physical barriers in walking paths, feeling unsafe and other people's behaviour as barriers to walking in Birmingham City Centre. The physical attributes of walkable cities as understood by older people and practitioners and expressed in Birmingham's strategy largely corresponded, but older people gave more emphasis to social dimensions. In addition, there was a gap between the vision and the on the ground reality as experienced by older people in Birmingham, due to implementation challenges. There was also some sign of ambivalence among practitioners in relation to older people's need to access the city centre. The study considers the extent to which the planned walkable environment in Birmingham City Centre embodies spatial justice for older people, and recommendation to planners and policymakers are made.

Dedication

For Ummi & Ayah

To My Family - Dinda

To SM

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Abbreviations

TBCP	The Big City Plan
BCCVFM	Birmingham City Centre Vision for Movement 2010
IBVFAWC	Interconnect Birmingham Vision For A Walkable City
BCC	Birmingham City Council
UK	United Kingdom
WHO	World Health Organization
ONS	Office for National Statistics
OADR	Old-Age Dependency Ratio
UN	United Nations
P-E Fit	Person-Environment Fit

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CHAPTER 1 INTRODUCTION

1.1 Background

1.1.1 The phenomenon of an ageing population

The United Nations' report on World Population Ageing (2017) highlighted that an ageing population is a global phenomenon. There were 382 million older people (aged 60 years and over) in 1980, 962 million in the year 2017 and it is expected that there will be 2.1 billion by 2050. This demographic shift has signalled the importance of older people to society in general as a segment of the population. The World Health Organization (2008) define older people as people aged 65 and above. Older people can be categorised into two groups, with people aged 65 to 74 as a first group, and a second group of older people aged 75 and above. Decreasing mortality and fertility, as well as an increase in the quality of health and the shrinking size of families, has driven the ageing group to live longer.

However, as the United Nations' report records, there are disparities of older people population by context (2017). For instance, the number of older people is growing faster in urban areas as compared to in rural areas. Globally, between the year 2000 and 2015, the number of people aged 60 years or over increased by 68% in urban areas, compared to a 25% increase in rural areas. As a result, older people are increasingly concentrated in urban areas. In 2015, 58% of the world's people aged 60 years or over resided in urban

areas, up from 51% in the year of 2000. People aged 80 years or over are even more likely to reside in urban areas: the percentage residing in urban areas increased from 56% in 2000 to 63% in 2015. Also, evidence from the report ‘Ageing and the city: making urban spaces work for older people’, presented in the United Nations' urbanisation conference Habitat III (HelpAge International, 2016) reported that urban development should protect and promote older people’s rights through provision of inclusive, welcoming and supportive spaces. The report also stated that older people are more likely to live in urban areas because more than 500 million people aged 65 and above live in cities.

In the United Kingdom context, population projections suggest that by 2039, one in four people will be over 65 years as compared to one in six in 2008, with the fastest growth among those aged 85 or over (Office for National Statistics, 2013). As an outcome of the ageing population, the old-age dependency ratio (OADR) is increasing. The OADR is the quantitative relation between the number of people over 65 years old (older people) for every 1,000 people aged 16 to 64 years old (teenagers and adults). In the middle of the year 2016, the United Kingdom’s OADR was 285. OADR is a useful measure to understand changing demographic structure that has implications for service provision, particularly in city planning.

Ageing populations contribute significantly to the social culture, lifestyle, welfare system, and economy of a nation (Wiles et al., 2012b; United Nations, 2019). In developed countries, older people often choose to retire from work in their later years, although they may continue to contribute to society in many ways, including participating in the informal workforce, volunteering or providing crucial help for their families. This study is concerned with older people’s walking activities as walking contributes to their

social participation (physical activities and social interactions) in later life for a good quality of life.

1.1.2 The implications of the urbanisation process

According to 'World Urbanization Prospects: The 2003 Revision' of the United Nations (2004), in the early 20th century, only 16 cities in the world (the majority in advanced industrial countries) contained a million people or more. Today, almost 400 cities contain a million people or more, with about 70% of them are found in the developing world.

Realising the rapid urban development and modernisation of cities raised the consciousness of some parties to observe the problems and needs that arise due to it. As cities grow, governing becomes increasingly complex. The speed and scale of global urbanisation presents challenges. The main concerns are towards the environment, natural resources, health conditions, social cohesion and individual rights (Cohen, 2006).

The development of a city or region should both include and take into account essential aspects that will affect people, which are historical, political, social, economic, environmental and psychological aspects (Southworth, 2005). These aspects are crucial in ensuring balanced prosperity and harmony among the community. Nowadays, the situation of rapid urban development in pursuit of modernisation and recognition may reach a particular stage when some aspects of human wellbeing are left behind (Litman, 2003). Rapid development has caused significant traffic congestion issues in urban areas (Azmi and Karim, 2012; Barker and Wagner, 2012; Shamsuddin et al., 2012). As a result,

urban areas have been dominated by vehicles and this creates extreme dependence on the transportation system and network (Shamsuddin et al., 2012; Litman, 2003).

As a result of the hustle and bustle that takes place in a city, the social values among society have been stressed. Consciously or not, a primary practice such as walking has begun to disappear because of modernisation. Walking was initially a primary mode of transportation in past days and has been shown to provide benefits in various ways. However, in a letter to the editors of the Public Health journal on "What will physical activity look like in 2025?" Stoner et al., (2014) express concern that 10 years ahead, the world will be moving towards a direction where people will have limited capacity to perform various kinds of physical feats, including walking.

Thus, realising the role of the built environment in encouraging physical activities (Handy et al., 2002), urban planning started to be recognised as an essential tool for public health where there was a need to provide safe pathways to encourage walking to school (Banerjee et al., 2014; McLaren, 2016). Moreover, the increasing rates of obesity and related diseases have made urban planners collaborate with public health workers (Morabia and Costanza, 2004).

In parallel with development and rapid urban expansion, the provision of facilities and the built environment in a city should facilitate and provide comfort for the continuation of walking (Stoner et al., 2014). City development that has long been centred on car use, prioritising vehicular traffic and discouraging the use of streets and public spaces will restrict participation in a community, contributing to social isolation and leading to unhealthy lifestyles (HelpAge International, 2016).

Urban development must ensure cities are inclusive, welcoming and supportive places for all, including actively protecting and promoting older people's rights (HelpAge International, 2016). Thus in past decades, the concept of a walkable city has started to gain almost full acceptance among academics and urban planners as a mode of sustainable transport and urban form, capable of offering environmental, psychological, social and health benefits for people and the future (Southworth, 2005). Taking a broad perspective of how a walkable city contributes towards sustaining the environment, Southworth (2005) provides support that walkability is the foundation for a sustainable city. Sustainability recognises walking as a primary mobility mode that is entirely green, socially equitable, healthy (Southworth, 2005) and affordable (Bhattacharyya and Mitra, 2013). The new sustainability paradigm also values walking as being the most democratic mode of transport regardless of a person's demographic, income, skill, gender and ethnicity background (Keesmaat, 2013; Pineda, 2008; Litman, 2003). Hence, for many reasons, providing an inclusive walking environment is crucial in promoting an inclusive urban environment for the physical, mental and social wellbeing of older people.

1.2 Problem Statement

As mentioned earlier, the ageing population is a long-term issue in the United Kingdom, Europe and globally. Ageing is a phenomenon which should be carefully analysed and interpreted to develop good strategies to meet social needs. This study emphasises older people's rights in a walking environment, especially in an urban area. The rights of older people should be understood and are worthy of being studied in order to sustain the wellbeing of ageing groups. Failure in managing this would lead to a social crisis when the elderly would be one-third of the overall world population.

The ageing population is driven by a longer life expectancy and lower rates of mortality as well as a reduced rate of fertility shrinking the size of the family (Tobi et al., 2017). The increasing population of older people is a sign of the excellence of modern medicine, and evidence of a good lifestyle for older people is when they are enjoying their quality of life (Onishi et al., 2010). Interest has been rising in the topic of ageing in place because of the Baby Boomer generation reaching retirement age. However, the provision of walkable environments with consideration for older people are relatively little discussed in the urban and transportation planning fields.

As older people are known as having higher likelihood of problems such as loneliness, depression, stress, being physically less fit as well as socially feeling isolated (Bazley, 1999), planners should place more attention to obtaining deeper understanding of their needs when designing and planning a city (Kerr et al., 2012; Buffel et al., 2012). Because of improving health, medicine and cultural shifts, current older people are

different from previous generations. Due to those changes, understanding their needs is an ongoing process. Recently, the concept of ageing in place has gained traction. Ageing in place means giving older people opportunities to remain living within the community, with some level of independence and activities rather than staying in residential care (Tobi et al., 2017; Wiles et al., 2012a). Thus, there is a strong need for focus on providing an inclusive walking environment that sustains the level of mobility and access among older people.

Walking is one of the most significant forms of mobility since for most people, every trip starts and ends on foot. Older people often rely significantly on walking after they have lost their capacity to drive. even if faced with an unsupportive infrastructure, some people walk because they cannot use another mode of transport or have no choice due to social or economic affordability, and yet provision for this group seems to be overlooked in most policy and planning for transport (Jönson et al., 2005).

Furthermore, as regards city planning, information on the needs and experiences of older people would be an important asset to improve the competitive advantage of a particular city. This vital information on the walking experience and needs of older people should be sound and clear to ensure considerable provision, planning and strategies which can be developed further. The current studies support that there is need for more inclusion of human diversity in walking environment research to inform policy, planning, and design interventions that are spatially and socially just for all ages and all abilities (Stafford and Baldwin, 2018; Kerr et al., 2012). Against this context, this research finds that there is a need to improve older people's walkability for a successful sustainable city growth, which supports a good quality of healthy ageing activities.

1.3 Research Aims and Research Questions

1.3.1 Research aim

The overall aim of this study is to explore the extent to which the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people.

1.3.2 Research questions

1. RQ 1: What are older people's perceptions of walking, and what do they expect from a walkable city?
2. RQ 2: To what extent do older people experience Birmingham City Centre as walkable?
3. RQ 3: To what extent and in what ways are the walking needs of older people considered in the planning of Birmingham's redeveloped City Centre?
4. RQ 4: To what extent does the planning of Birmingham City Centre as a walkable city promote spatial justice for older people?

1.4 Underpinning Perspectives

Three underpinning theories have shaped the exploration of the research aims and research questions of this study: 1) theories of spatial justice, 2) a walkable city, and 3) older people and walking.

1.4.1 Theories of spatial justice

This research focused on the theory of spatial justice in planning a walkable city which is inclusive for older people. The theory of justice suggests that all individuals have the same rights in gaining access to urban resources and the right to change themselves by changing the city as their heart desires (Harvey, 2008). According to Lefebvre (1991), space is a result of social product comprising of the surroundings, its people and activities within the space itself. He further posited that there is control, and domination within the social space, which affects the space itself. This theory brings about the debate regarding spatial justice, of how these spaces provide equal opportunity for every single person despite demographic differences and preferences, for instance older people from the least advantaged group. Are their needs being considered in city planning, particularly in developing of walkable urban space?

According to Edward Soja (2010), spatial rights include open and fair participation in urban processes, accessing and taking advantage of cities, especially in a city centre area, avoiding spatial segregation, and equal access to public facilities. Equality in the context of this study is equality in the use of public space by pedestrians regardless of

class, age, race and gender differences. Thus, how can spatial justice be provided for pedestrians consisting of older people?

1.4.2 A walkable city concept

A walkable city is where the built environment should be able to support and encourage all age ranges of people to walk, through its planning and design (Southworth, 2005). The concept has gained acceptance in urban planning, and health studies because walking promotes positive benefits to people, as individuals and as a community. A walkable urban environment could benefit people and the urban environment. Walking may reduce pollution in urban areas, helps to improve overall health, enhance social relations and increases the local economy (Panter and Jones, 2010; Marquet and Miralles-Guasch, 2014; Maddison et al., 2009; Southworth, 2005; Litman and Victoria Transport Policy Institute, 2003).

Planning a walkable city involves a pedestrian-focused viewpoint, affording people the opportunity to move about safely and comfortably on a visually exciting journey, connecting effortlessly to services, facilities and transport in the city without the use of a motor vehicle (Southworth, 2005; Litman and Victoria Transport Policy Institute, 2003; Tiwari, 2015). Literature provides support that a walkable city has several significant built environment attributes: 1) connectivity of path networks, 2) linkage with other modes of transport, 3) fine-grained and various land-use patterns, 4) safety, 5) quality of paths and 6) path contexts (Southworth, 2005).

1.4.3 Older people and walking

At present, ageing within the community has become a prominent issue throughout the world. This research defines older people as those aged 65 and above based on the definition by the World Health Organization (2002).

Older people are vulnerable to social exclusion in the form of isolation from people, locations, facilities and services, limiting their access to the sorts of opportunities that most people in society often take for granted. To date, there is still limited research on ageing in the super-diversified 21st-century setting (Birmingham Policy Commission, 2014). Fletcher (2006) posited the idea that an inclusive walking environment is about making places in which everyone can walk. Mollenkopf et al. (2004) presented that walking has become a common form of travel among the elderly. This statement further strengthens the need to plan a walkable city with older people in mind, so that older people can easily walk from one place to another.

Walkability for older people in urban areas is made possible by ensuring that urban city planning takes into account the safety of older people who wish to travel by foot and that the design and structure of the built environment and adequate public transport will allow unlimited access to every part of the city. Musselwhite (2011) argues that the current city planning is not user-friendly enough as older people face difficulties in accessing shops, banks and hospitals due to their loss of ability to drive, hence having to rely upon public transport to access these facilities. This finding is supported by those of Tsunoda et al. (2015) in their research on Japan. They found that the facilities are easily accessible when using private transport such as cars or motorcycles, but in order to handle

these modes of transport, individuals require the competencies and abilities to drive. Driving, to everyone's knowledge, is highly associated with good physical and mental health which deteriorate with age. Therefore, walking has become a crucial means of transportation among older people and is chosen to replace other means of transportation due to its affordability and high accessibility (Temelova et al., 2012) (Roberts et al., 1996).

The concept of ageing in place means giving older people opportunities to remain living within the community, with some level of independence and activities rather than staying in residential care (Tobi et al., 2017; Wiles et al., 2012a). There is a strong focus in ageing in place on the inclusive walking environment that contributes to the level of mobility and accessibility among ageing communities. A poor walking environment may create many problems for the older people, such as inaccessibility, food insecurity, obesity, and quicker degradation of mental and physical health, because of their inability to function through the current infrastructure of their community, and their failure to secure daily needs and social interaction (Berke et al., 2007).

1.5 Context of the Study

The city centre of Birmingham, United Kingdom, was selected as the context of this study for two reasons. Firstly, as the largest city outside London, with one of the most diverse and youthful populations, Birmingham is a relevant case study to look at one of the least advantaged groups of people, namely older people. Based on Birmingham's population estimation in 1996, the old-age dependency ratio (OADR) for aged 65 years and over was 202 for 2016. As population is projected, the OADR in 2026 will be 222 and will increase to 260 in 2036. It is also projected that in 2036 there will be 16% of Birmingham's local population aged 65 and above and 3% aged 85 and above (Medland, 2012).

Second, the city centre of Birmingham changed rapidly from a Victorian industrial city – with a 'Concrete Collar' which segregated pedestrians and traffic on a scale unparalleled in the United Kingdom, towards a city that promotes cultural and business tourism and a revitalised public realm. Thus, through the Big City Plan (Birmingham City Council, 2011b), there are relevant redevelopment projects taking place in the city centre of Birmingham that is heading towards making the city centre of Birmingham a walkable city.

The Big City Plan involves a range of studies and background work. The aim of the Big City Plan is to improve the connectivity of the city centre, with a focus on efforts to revitalise the walking environment, identity and transportation in the city. In order to improve connections, transform the city centre of Birmingham's connectivity, and improve walkability, there are two relevant policy documents to support The Big City

Plan: 1) Birmingham City Centre: Vision for Movement (Birmingham City Council, 2010) and 2) Interconnect Birmingham: Vision for a Walkable City (Birmingham City Council, 2011a). Both documents will be studied. The Birmingham City Centre: Vision for Movement (2010) sets the strategy for public transport, pedestrian movement and future use of the highway network across the city centre and The Interconnect Birmingham: Vision for a Walkable City (2010) supports the creation of a city centre that is more welcoming, navigable and legible..

Thus, in the context of the city centre of Birmingham, this study has full interest in investigating the real experience of older people walking in a planned urban walking environment (a walkable city) in the city centre of Birmingham, United Kingdom.

1.6 Significance of the Study

This study is anticipated to provide significant contributions to literature and the development of a body of knowledge particularly rooted in urban planning, inclusive urban walking environments and ageing studies. This study will be an essential and timely effort in promoting the importance of recent emerging study on ageing. The findings of this study will extend the available knowledge in planning and designing a walking environment that considers older people's needs and experiences.

By understanding the needs and challenges of older people walking in an urban area, this study would be beneficial to bring emphasis to the particular context: older people who experience walking in the city centre of Birmingham. This research is significant in the limited evidence of the literature, particularly in the exploratory design of the walkable city and spatial justice theories, using the experiences of older people who experience walking in the city centre of Birmingham. This study is relevant in signalling and suggesting recommendations on issues faced by older people in Birmingham and other individuals, groups and communities who are concerned to provide older people with a good quality of life. Possible implications from the study are hoped to stimulate acknowledgement of the importance of an inclusive walkable environment towards encouraging social participation and supporting a healthy ageing life.

Thus, the ultimate aim for this study is to provide a view into broader understanding and deeper insights into older people's walking needs and limitations by

interpreting and documenting the experience of older people while walking in an urban walking environment. The examination of the walking experience would be the primary concern to understand the needs of older people in a walking environment towards achieving healthy ageing life. The general idea is hoped to send messages to the provider (propose guidelines) and educate society on older people's walking needs and challenges, especially in the context of an urban area.

1.7 Thesis Structure

This thesis is divided into eight (8) chapters with an additional appendix and reference section. The first chapter discusses the ageing population and urbanisation, providing a brief on the underpinning theories, the context of study, problem statement, significance of study, research aims and questions. Chapter 2 provides a comprehensive review of the relevant literature and is followed by Chapter 3 which presents the method and methodology, including the data collection technique, sampling and data analysis. Chapter 4 explains more details on the Birmingham context, while Chapters 5, 6 and 7 present the empirical findings. Lastly, this thesis ends with Chapter 8, presents the study conclusions and recommendations.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter outlines the theoretical literature and related empirical evidence that informed this thesis, specifically, theories of spatial justice, walkable city and person-environment fit. These are among the important fields in urban planning and architecture which involves the study of interactions between people and the built environment.

Urban planning is a combination of transportation and land use planning to enhance the development of an area, community or city. Urban planning is affected by various factors including geography, population density and politics. A city's master plan and environment are defined both by design and urban planning, as well as the demographics and lifestyle of the people.

Foot travel is one of the most important modes of transport in urban environments. Especially in a dense urban environment it becomes a necessity to walk to destinations (Susilo et al., 2012). In big cities, millions of people need to walk ~~to work~~ on a daily basis. The city must accommodate this need. Pavement widths, street crossings, signage and many other details are critical in the urban design for pedestrians. The impact of walking in densely populated cities is one of the most essential concepts in sustainable urban design. However, pedestrian infrastructure, amenities, and services are often neglected in urban planning and budgets (Hung et al., 2010).

As the populations of cities are ageing globally, it is essential to include consideration of older pedestrians in urban planning. Although older people are diverse as individuals, at a population level, they have specific characteristics and needs which need attention and might not be provided for by more general walkability provision. At the same time, older people often have more limited transport options if they no longer drive. As a result, older people may be excluded from urban areas and participation in the city if the needs of the older pedestrian are not given specific attention.

2.2 Theory of spatial justice

This section focuses on the theory of production of space, theory of right to the city, and lastly theory of spatial justice that are relevant to planning a just walkable city which is inclusive for all members of the community, including older people.

The right to the city theory suggests that all individuals have the same rights in gaining access to urban resources (Harvey, 2008). Before looking into the individual's or group's right to the city, it is essential to look at the main factors that lead to the rise of spatial justice issues and how it is related to globalisation and urbanisation. Globalisation, according to Held et. al (1999) , is a transformation process involving technological, economic and social transactions which link different parts of the world. Urbanisation, on the other hand, involves the transformation of space from one form and set of characteristics to another. Globalisation and urbanisation are intertwined with one another and, are the main means of capital accumulation in the late twentiethc century onwards (Massey et. al, 1999).

This idea of urbanisation as a drive to globalisation is further emphasised by Harrison (2015) who posits that urban areas continuously undergo developments and reconstruction in order to compete with the international competitors and in order to attract more investors from around the globe. Urban areas are treated as an economic machine to serve the interests of the elite and those who hold power in the community (Brenner and Theodore, 2002) . This clearly shows the domination of a certain group of

people, particularly the ruling class, in manipulating certain rules and value systems within a society.

According to Lefebvre (1991) in his book entitled *The Production of Space*, space is a social product comprising the surroundings, the people and activities within the space itself. He further posited that there is control and domination within the social space, which has an effect on the space itself. This brings about the debate regarding spatial justice, of how these spaces can provide equal opportunity for every single person depite demographic differences and preferences, for instance older people.

According to Edward Soja (2010), spatial rights include open and fair participation in urban processes, accessing and taking advantage of cities, especially in a city centre area, avoiding spatial segregation, and equal access to public facilities, and services, such as education, health and administration.

2.2.1 Production of space

Space is produced through both social processes and economic realities. This means that space and time are shaped by policies and inventions, as well as individuals' or groups' daily routines. The structuring of space not only produces specific social patterns and relationships, but it also has an impact on cultural values and economic prospects. Henri Lefebvre (1974a) introduced 'a conceptual triad', which explains how space is socially produced. The conceptual triad (see Figure 2.1 below) includes; 1) spatial practice, 2) representations of space, and 3) representational space.

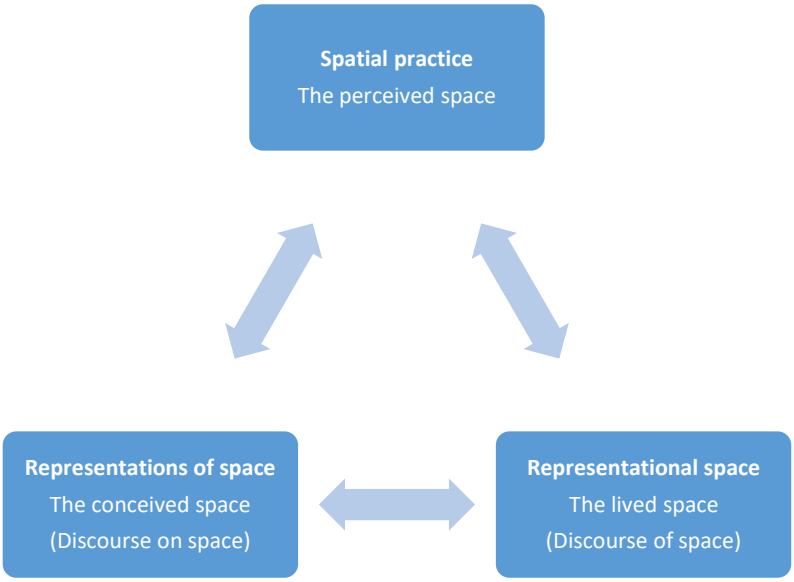


Figure 2.1 A conceptual triad explaing how space is socially produced

(Adapted from Lefebvre, 1974)

2.2.1.1 Spatial practice

Spatial practice relates to perceived space, which is how space is experienced by the user day to day, according to their practicesIn other words, it is a space that functions by the activities of people. Space is experienced and felt by users, both as individuals as well as in groups, which are bound by social interaction that will have an impact on the habits of these users (Lefebvre, 1974a).

2.2.1.2 Representations of space

Representations of space are related to the imagination or concept of a space (based on human understanding) by professionals. Space is defined and conceptualised as a vision

desired by these professionals. It includes formal planning of space, for example, production of a master plan by a planner guided by the local authority (Lefebvre, 1974a).

2.2.1.3 Representational space

Representational space is related to the lived, phenomenological experience of people who interact with the space. This reflects the symbolic meanings and emotions that people attach to places. If such lived experience does not exist, the space should not be considered a social space (Lefebvre, 1974a).

2.2.2 Right to the city

The initial concept of right to the city originated from Henri Lefebvre in 1968 in his book *Le Droit à la Ville* where he emphasises a city as a space of encounters, generating possibilities and opportunities to improve the quality of everyday life in cities. According to Lefebvre, the optimal outcomes for the society and the environment cannot be achieved when individuals and groups are excluded from participation in generating possibilities and opportunities.

Extending the original theory of right to the city, into the urban geography field, David Harvey (2008) introduce the theory of right to the city as a power to shape people's living environments according to their preferences and needs. The power that Harvey mentioned can include authorities or practitioners power in controlling urban planning processes.

Thus, in reflecting the context of this study interest, which is the least advantaged group of people namely older people, Lefebvre and Harvey's work suggests that older people should also have the possibilities and opportunities to walk in the urban walking environment or a walkable city, if they want or need to, as their right to the city and to participate in the production of space.

2.2.3 Spatial justice

Bromberg et al. (2007) defined a just space as one that provides the opportunity to participate in inscribing its meaning and which is accessible to all. Claims for justice or injustice in a space not only occur in a city but at all geographical scales (Soja, 2009). Soja (2010) explains the theory of spatial justice relevent for geographical justice or injustice as related to the fair and equitable distribution of resources, services, and access in that particular place or area. Spatial justice is closely related to the theory of right to the city (Lefebvre, 1969; Harvey, 2008), namely the rights of every city citizen, including older people to access all available resources in the urban environment.

This study adopted the spatial justice framework introduced by Kenneth Bailey, Lori Lobenstine and Kiara Nagel (2012) and Basset (Bassett, 2013) in reclaiming older people's rights to be and become (spatial claims), right to thrive and express (spatial power) and right to access and connect (spatial links) in a context of planned walking environment (a walkable city centre).

2.2.3.1 Spatial claims – The right to be and become

The right to be and become in space, regardless of age, gender, race, or other aspects of identity, is referred to as spatial claims. (Bailey et al., 2012; Bassett, 2013). Being and becoming in space as individuals or groups is one way that the spatial is negotiated.

Older people or older pedestrian should have the right to visit and walk in or into the city regardless of their age, gender, race, walking aids, health status or other relevent aspects. This includes the ability to walk and be safe in or into the designated walking environment in the Brimingham City Centre.

2.2.3.2 Spatial power – The right to thrive and express

How a certain place establishes the conditions for granting or refusing a group's or individual's right to succeed in the territory is known as spatial power (Bailey et al., 2012; Bassett, 2013).

As for the purpose of this study, spatial power is about how the provision of walkable city built environment in Birmingham City Centre found to actually encourage or discourage older people to walk in or into the city centre. Spatial power relates to the policy and practitioners responsibilities to provide for older pedestrian.

2.2.3.3 Spatial link – The right to access and connect

Spatial link is about the ability to connect to the assets and resources held within a given location as well as the surrounding areas and the rest of the city or region (Bailey et al., 2012; Bassett, 2013). Spatial justice is "integrally linked to whether a place has access to critical public infrastructures and services" (Bailey et al., 2012, p.5).

As for the purpose of this study, relevant questions related to the spatial link includes can older people get to the city centre with accessible public transportation? Are there spaces to sit and gather in the city centre? Are there enough public access to toilets in the city centre? When spatial links are torn out, blocked or divested, older people will lose connection with the city centre.

From the elaboration, it is understood that spatial justice is a condition in which everyone has equal opportunities to access the public sphere of the walkable city and the freedom to use and utilise the walkable space regardless of class differences, gender, age and race.

2.3 Walkable urban environments

Research studies on walkable environments have been explored in various research fields such as urban planning, urban design, transportation, social behaviour, environmental, economics and recently, public health. For instance, health studies have started to debate about the walkable environment and show the positive correlation between walking and physical activity (Reis et al., 2013) that can increase population health (Morabia and Costanza, 2004; Grant et al., 2017). Thus, this study acknowledges that the existing research has contributed to the understanding of the benefits, qualities and effects of a walking environment for the community, and furthermore extended knowledge on how to improve and encourage walking within a community.

2.3.1 Definition of a walkable urban environment

The ease with which a person can walk in an area is referred to as the area's walkability. The walkability of an urban environment is the extent to which the public realm and built environment of an urban area "supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort, and offering visual interest in journeys throughout the network" (Southworth, 2005, p.248). Similarly, Transport for London (2005, p.4) defines a walkable environment as "a measure of the extent to which the public realm provides for movement and other activity on foot in ways that are both efficient and enjoyable".

2.3.2 Benefits of a walkable urban environment



Figure 2.2 Benefits of a walking environment

Source: Author's construct (2019)

Walking promotes positive benefits to people, as individuals and as a community. A walkable urban environment benefits people and the urban environment in several ways including the following: reduces pollution in urban areas, helps to improve the overall health of the population, enhances social relations, and increases the local economy (Panter and Jones, 2010; Marquet and Miralles-Guasch, 2014; Maddison et al., 2009; Southworth, 2005; Litman and Victoria Transport Policy Institute, 2003). Walkability is the foundation of a sustainable city (Southworth, 2005) and a focus on the walkable city concept will transform the way people live in fundamental ways, benefiting health, local economics, social relations, and the natural environment (Southworth, 2006).

Since 1975, obesity is a growing phenomenon around the world. The World Health Organization (2018) reported that, in 2016, more than 1.9 billion people worldwide are overweight and 650 million of these are obese. Obesity is on the rise in urban areas because of changes in diet and lack of physical activity. Globally, there has been a change in diet with an increased intake of energy-dense foods that are high in fat and an increase in physical inactivity due to the increasingly inactive nature of many forms of work, changing modes of transportation, and increasing urbanisation (World Health Organization, 2018). Changes in dietary and physical activity patterns are often the result of environmental and societal changes associated with the development and lack of supportive policies in sectors such as health, agriculture, transport, urban planning, environment, food processing, distribution, marketing, and education (World Health Organization, 2018).

More people work indoors in offices with the nature of work sitting in front of a computer with limited physical activity. Urbanisation has led to a non-healthy diet and lifestyle and allowed forms of indoor entertainment and socialisation such as the internet and television. Stoner et al. (2014) in their article 'What will physical activity look like in 2025?', predict the direction that the world is currently heading towards is one in which the human race has lost its capacity for performing any physical feat. The study suggests there is a need to build extended public green space and a more walkable and cycle-friendly city, keeping employees physically active through worksite group workouts, limitations on the use of lifts, removal of automatic doors, pedal devices under desk and weekly physical activity quotas. They also suggest that urban planners should build safe pathways to encourage children to walk or run home.

The World Health Organization recommends at least 30 minutes of regular, moderate-intensity activity such as walking or jogging on most days in a week. This is also supported by Morabia and Costanza (2004) who suggested 15 minutes per day of moderate or brisk walking, or 30 minutes per day of slow walking, could increase physical activity at the population level.

This regular physical activity provides public fitness and a number of mental and physical health benefits including reduced risk of cardiovascular diseases (mainly heart disease and stroke), diabetes, joint disorder and cancers (Litman and Victoria Transport Policy Institute, 2003; World Health Organization, 2018). Walking has a significant effect on the long-term symptoms of depression (Robertson et al., 2012) and limited walking appeared to be associated with more frequent depression, particularly for people living in deprived areas (Vallée et al., 2011).

Understanding the influence of the built environment on physical activity is an important and challenging new area of population health research, with many new scientific opportunities. Importantly, it is research that is fundamental to chronic disease prevention, through evidence-based environmental, transportation, urban planning, and public health policy strategies that will promote walking as a more central component of adults' health-enhancing physical activity (Owen et al., 2004).

Instead of driving, walking helps to lower car dependency and reduces the amount of pollution as walking does not involve the use of any fossil fuels or electricity. Walking is a green mode of transport that can reduce congestion, with a very low environmental

impact, conserving energy without air and noise pollution (Southworth, 2005). Also, The Victoria Transport Policy Institute suggested that slower modes such as walking and cycling continue to be important even if faster modes develop (Litman and Victoria Transport Policy Institute, 2003). The promotion of active walking is an important goal of transportation planning where it improves social relations and promotes a socially equitable mode of transport that is affordable and available to the majority of the population. It encourages sociability among the community, including the disabled (Southworth, 2005; Litman and Victoria Transport Policy Institute, 2003). Aware of these benefits, many cities have started to enhance their walking environment to encourage people to walk more.

It was reported in Walking and Cycling Statistics, England: 2016 (Parry, 2018) that in 2016, on average, an individual walks 243 walking trips in a year. More people walk for travel during weekdays and walk for leisure during the weekend. Walking for travel includes walks to work and transit stations while walking for leisure includes a walk to a shop or park. This huge number of walking trips emphasises the importance of a walkable environment and causes a need for a better walking environment especially in an urban area.

2.3.3 What makes a walkable urban environment

A series of studies in the literature support that there is a significant relationship between built environment attributes and walking behaviour (Lee et al., 2013; Susilo et al., 2012; Wood et al., 2010; Talen and Koschinsky, 2014; Lotfi and Koohsari, 2011).

Figure 2.3 below suggests built environment attributes that can influence people's decisions to walk (Southworth, 2005).

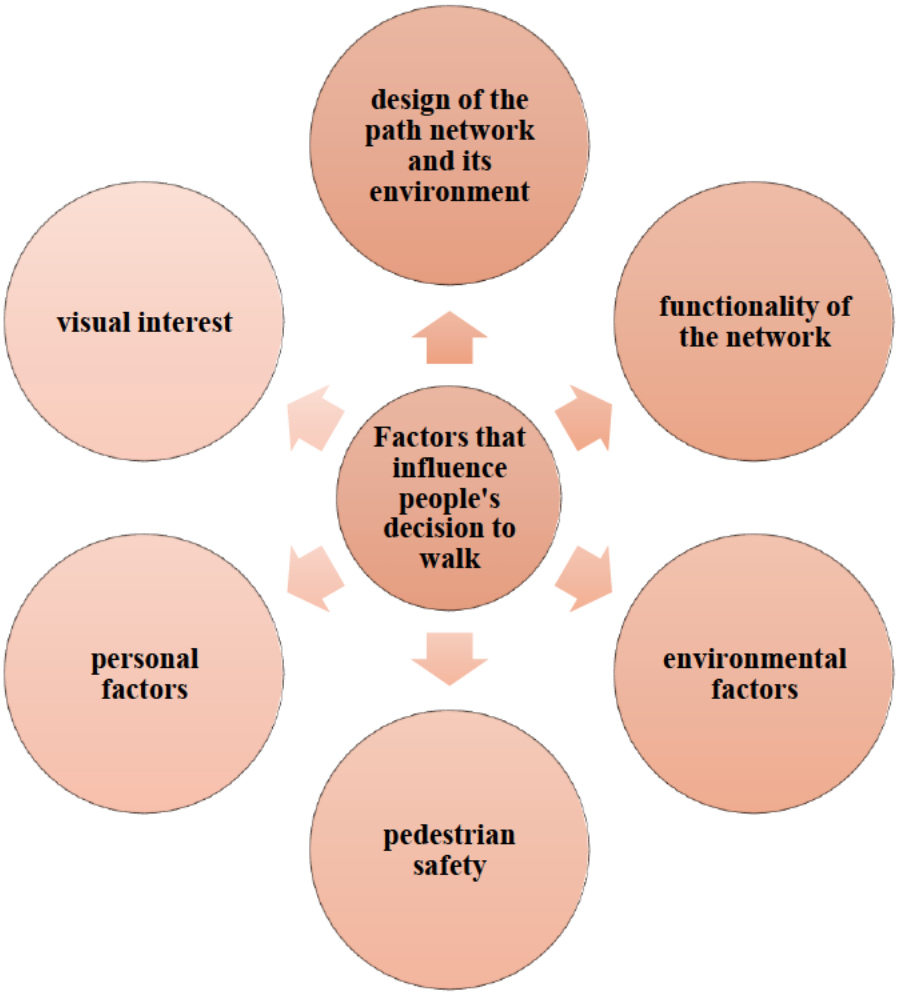


Figure 2.3 The built environment attributes that influence people's decisions to walk

Source: Southworth (2005)

According to Southworth, several factors influence people to decide to walk instead of using vehicles. Significant determinants for a pleasurable walk include the following: design of the path network and its environment, the functionality of the network (path system, accessible on foot or by wheelchair, and well connected), environmental factors (weather, terrain), pedestrian safety (from crime and dangerous traffic), personal factors

(age, health) and visual interest. However, visual interest has been the least understood and most ignored variable in walkability planning and design (Southworth, 2005).

There are two categories of walking; walking for leisure or recreational walking, such as exercise, recreation, and shopping, and walking for transport or utilitarian walking (Adkins et al., 2012; Wood et al., 2010; Ariffin and Zahari, 2013; Wineman et al., 2014). Previous studies found that types of walking influence people's preferences and experience in an urban environment. For instance, the study by Learnihan et al. (2011) found that the walkability index captured a strong positive relationship between urban form and walking for transport, but found no relationship at any scale for recreational walking. Moreover, a study in a North American city (Millward et al., 2013) found that the most common purpose for people to walk is shopping rather than walking to work.

Built environment attributes associated with walking for recreation or exercise appear to be different from those associated with utilitarian walking. Built environment attributes for a utilitarian walk relate to convenience of walking facilities for walking, accessibility of destinations and safety perceptions about traffic and busy roads (Owen et al., 2004). Most of the walking distances for a utilitarian walk are less than 600 metres, and in Millward et al's study, it was reported very few exceeded 1200 metres (Millward et al., 2013).

On the other hand, the built environment attributes positively associated with walking sufficiently to meet recreational walking include higher residential density, smaller street-blocks around the home, and shorter distances to food and daily retail facilities from home. A study conducted in King County, Washington highlighted that

threshold distances for eating or drinking establishments and grocery stores were 860 and 1445 feet (Moudon et al., 2006). Studies that aim to identify the built environment attributes that will encourage or discourage walking and develop a series of environmental measures could help urban planners recognise and incorporate walkable city and sustainable design considerations into their design and planning strategies.

The urban design elements of accessibility, mixed land use, safety and connectivity are crucial in creating a walking environment that could support a city's ability to encourage people to walk for healthy living (Weiss et al., 2010).

2.3.3.1 Accessibility

Systematic patterns of uneven access to public parks help to explain inequalities in health outcomes across socio-demographic New York City populations (Miyake et al., 2010). The intensity of social interaction within neighbourhood parks is a result of a combination of legibility attributes and density within residential areas (Moulay et al., 2014). Walkability studies widely used a Walk Score calculation to objectively measure foot accessibility in a place (Lwin and Murayama, 2011). Inequalities of access to public spaces such as parks may lead to misunderstanding of the connection between the built environment and physical activity among older people (Weiss et al., 2010). Miyake et al. (2010) stress that accessibility and the distribution of urban space need to be well planned as a great space of social interaction that helps to solve problems of inactivity among older people (Moulay et al., 2014).

2.3.3.2 Mixed Land Use

Compact, walkable and diverse neighbourhoods have a positive effect on social interaction, health and the safety of urban residents (Talen and Koschinsky, 2014). The density and legibility of a city could improve the intensity of social interactions (Moulay et al., 2014) and the value of the surrounding property (Sohn et al., 2012) within the neighbourhood area.

Pedestrian infrastructure and land use mix significantly contributed to increases in rental multi-family residential property values, where higher development density with higher street and pavement coverage were also favoured by retail service uses (Sohn et al., 2012).

In the study case of, Tehran in Iran, older people who lived in high-walkable neighbourhoods walked more frequently than those who lived in low-walkable neighbourhoods regardless of their socio-economic status (Lotfi and Koohsari, 2011). However, Sohn et al.'s (2012) study in King County, Washington has not researched the factors making high-density neighbourhoods an attractive living environment that would help develop urban design strategies for creating walking-friendly urban settings that are marketable (Sohn et al., 2012). Existing literature on mixed land use lacks the professionals' viewpoints from a variety of fields (transport planning, transport engineering, health, tourism, social inclusion, crime prevention and urban design), in preparing a walking plan (Bhattacharyya and Mitra, 2013). With regard to older people, studies by Sundquist et al. (2011) and Weiss et al. (2010) did not cover the objective and subjective measures of mixed land use impacts on older people's physical activity and

travel patterns (Millward et al., 2013) which reflect self-selection and causality in the elderly in compact, diverse neighbourhoods (Talen and Koschinsky, 2014).

2.3.3.3 Pedestrian safety

Pedestrian safety is a crucial aspect of walkability as it will directly influence and affect people's perception and experience. Walkability has to do with perceptions of the surrounding areas, such as appeal and safety (Weiss et al., 2010), and will be affected by the cumulative impact of multiple interactions and experience, in both positive and negative impacts (Kelly et al., 2011). Weiss et al.'s (2010) neighborhood study in New York City provides support for the argument that both actual environmental features and perceptions of these attributes influence walking behaviour. A study in the City of Leeds, UK highlighted that important pedestrian attributes include pavement cleanliness, safe crossing places, good connectivity and a sense of security (Kelly et al. 2011).

2.3.3.4 Connectivity

Connectivity of the path network is determined by the presence of pavements and other pedestrian paths and by the degree of path continuity and the absence of significant barriers. Connectivity refers to the length of the path network accessible within a given distance or number of direction changes for transportation linkages connecting people and spaces. This will include the existence of safe crossing places and street and pedestrian connections. General study provides support that a walkable network has several significant built environment attributes, including connectivity of path networks,

and linkage with other modes of transport. (Southworth 2005; Adkins et al 2012; Millward et al 2013).

2.3.4 Constraints or issues with planning a walking urban environment

The previous section 2.2 showed that a focus on a walkable city design will transform the way people live in various fundamental ways, benefiting human health, social relations, and the natural environment. A walkable city is where the built environment should be able to support and encourage all age ranges of people to walk, through its planning and design (Southworth, 2005). Planning a walkable city involves a pedestrian-focused viewpoint, affording people the opportunity to move about safely and comfortably on a visually interesting journey, connecting effortlessly to services, facilities and transport in the city without the use of a motor vehicle (Southworth, 2005; Litman and Victoria Transport Policy Institute, 2003; Tiwari, 2015).

Planning a walkable city project involves several departments and disseminated knowledge for incorporating the benefits of the urban walking environment into project planning (Cubukcu, 2013). The responsibility for the urban walking environment is shared between several departments for planning, management, and programming (Littke and Space, 2015). Teamwork or collaboration between professionals is key in planning an urban walking environment (Keesmaat, 2013; Cubukcu, 2013; Giles-Corti and Donovan, 2003; Learnihan et al., 2011).

Acknowledged as the second most walkable city in Canada, (Bosanac, 2013) the City of Toronto advocates collaboration between local authorities, planners, architects,

lawyers, developers, researchers and even educationalists in planning a walking environment. Toronto City's Chief Planner, Jennifer Keesmaat, highlighted in her talk 'Integrating Walkability in Urban Design' (2013) that the professionals should collaborate for a bigger objective in building a great pedestrian city which satisfies its community. Although creating a walkable city is challenging, requiring improvement of policy, urban design, and transportation practice, the engagement of public support is more challenging (Learnihan et al., 2011).

To create a walkable city in the age of the car, emphasis will need to shift from almost total car orientation to acceptance and promotion of walking and active travel access at all levels. The regulatory environment will need to shift towards the encouragement of walkability, and the design and planning professions will need to work towards the creation of integrated pedestrian access at all scales of movement. Moreover, the city agencies should invest large amounts of their budgets in compensation and benefits. Pedestrian infrastructure, amenities, and services are often neglected in urban planning and budgets (Hung et al., 2010). The economic perspective, currently dominant in planning, views many environmental changes regarding amenities as inefficient use of resources, failing to recognise their health implications and significance regarding less tangible yet far more vital aspects (Kaplan and Kaplan, 2003). Creating a walkable city is challenging, but the benefits to urban life will be substantial.

Planning and designing for diversity across abilities and ages is not a new concept (Stafford and Baldwin, 2018). Scholarly work on urban planning and design over the past two decades shows how built environment features (lack of pathways, unmaintained infrastructure, and poor legibility) have imposed restrictions in the mobility and social

participation of older people. The reason for the continuation of non-inclusive built environments are many but include standard norms held about the body and space that underpin planning and design decisions and limited incorporation of the universal design (UD) concept in urban planning and design pedagogy. Universal design promotes inclusive built environmental design for the range of the population (Fletcher, 2006). However, universal design has been applied primarily to architectural buildings and products, rather than to city planning (Stafford and Baldwin, 2017).

Public participation in planning in the UK has officially existed since the Town and Country Planning Act of 1968, and today it is seen as an integral aspect of the planning process. Through public participation, community members gain meaning while contributing to their benefits and that of their community (Kaplan and Kaplan, 2003). However, active engagement of local people is hard to achieve and new planning proposals risk being unjust due to insufficient public consultation. Language and clarification of concepts such as a walkable city play a crucial role in facilitating understanding of new plans, as professional and non-professional language often differ. The concerns raised by the non-professional individuals and NGOs may be better presented in the document with examples and definitions in both spatial and conceptual forms. Planning as the democratic process of inclusion must find better methods of communicating with the public (Littke and Space, 2015). Thus, it is essential to acknowledge the existence of a gap between professional delivery and the reality of public participation and to address the training and resource needs of both professionals and community members (Kearney, 2004).

Previous literature also argued that public participation remains a continuing problem for policymakers because policymakers often set up local partnerships with insufficient knowledge of the ‘culture’ (i.e. structure, processes, practices, relations and agents) of the target communities they seek to regenerate and involve in decision-making. Furthermore, policymakers also often lack a critically reflective understanding of their cultural practices (Maginn, 2007). Information technology offers new potential for public participation in urban planning. The media for public participation in urban planning should provide a communication platform which suppresses a barrier of non-professionalism, allows for distant contacts and enables participatory process management (Hanzl, 2007).

2.4 Person-Environment Fit Theory

Person-Environment Fit (P-E fit) is generally defined as the compatibility between person and their environment. According to the theory of Lawton & Nahemow (1973), there are two components in the P-E fit theory: person and environment. The person is defined in terms of a set of individual competencies, and the environment is defined in terms of a press or demand. As conceptualized by Lawton (1980), the personal component, indicating the competence, includes the five aspects of the individual's biological health, functional health, cognitive function, time use, and social behavior. Meanwhile the environment component, indicating the demand, includes the personal, group, suprapersonal (eg. cohort), social and physical environment. The Lawton and Nahemow's P-E fit model maps the intersection between the competence component and the press component where "the less competent the individual, the greater the impact of environmental factors on that individual" (Lawton, 1980, p.14).

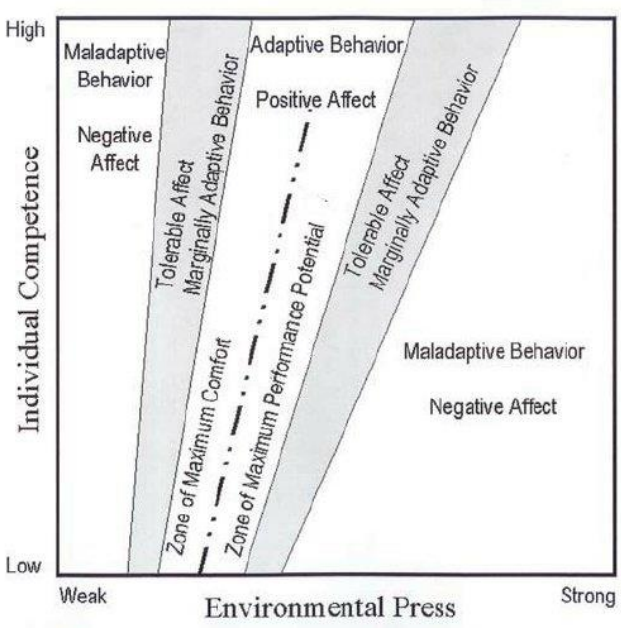


Figure 2.4 Ecological Model of Aging ("Competence Press Model")

(Adapted from Lawton & Nahemow, 1973)

In environmental gerontology, the P-E fit theory has been discussed in order to understand older people's needs in the evolving environment. The ability to function in their living environment is acknowledged through the theory as a result of compatibility between older people's competency and the demand of the specific environment (Glass & Balfour, 2003). To give examples, studies of Day (2008a) and Iwarsson (2005) shed light on the value of PE-fit theory in understanding how older people respond to the outdoor physical environments. Day (2008a) argued that the outdoor physical environment may encourage or discourage older people's health. Her study in Scotland highlighted five dimension of the outdoor physical environment that affect older people: cleanliness, peacefulness, exercise facilitation, social interaction facilitation and emotional boost. Meanwhile the study of Iwarsson, (2005) highlighted that functional limitations and dependence on mobility devices increased among older people in Swedish housing areas, with few changes found concerning environmental barriers.

A study of older people in Central Finland (Eronen et al., 2014) identified five barrier profiles (competency) to outdoor physical activity which differed in the proportion of individual and environmental barriers. The barrier profiles included minor, weather, health, insecurity and mobility barriers. This study highlighted that outdoor physical activity barriers reflect the imbalance in P-E fit among older people. People with significant mobility issues who were unable to engage in outdoor physical activity had the highest probability of unfulfilled physical activity needs. This study also suggested that individual and environmental outdoor physical activity barriers reflect the functional status of older community-dwelling people (Eronen et al., 2014).

Musselwhite's (2015) study in England and Wales examined the extent of P-E fit present in older people's use of outdoor space. This study measure the level of confidence to use and explore space among older people in three locations; shopping centres, suburban residential area and a shared space area. The study discovered that spatial dominance was associated with male gender, as well as higher levels of perceived health, confidence, and socioeconomic position.

Similarly, Kahana et al (2003) discussed the impact of neighbourhood setting on older people's residential satisfaction. Their review study confirmed that the characteristics of person, environment and PE fit do affect older people's neighbourhood's satisfaction. Physical and resource amenities, safety, peacefulness, homogeneity, and interaction were some of the characteristics of the neighbourhood environment that older people in their study found most appealing (Kahana et al., 2003). However, Balfour and Kaplan (2002) found that excessive noise, insufficient illumination, and heavy traffic were the most common neighbourhood issues in Almeda County, California. When Balfour and Kaplan's study compared older people in different communities, they found that older persons who reported unfavourable neighbourhood surroundings had a higher risk of functional deterioration over a year.

In another study of Choi and Matz-costa (2018) in California, the study findings showed that efforts to improve perceived neighbourhood safety and social cohesion, also aspects of environmental press, are critical to older people's well-being. They concluded that older people with functional impairments, who appear to be more prone to the harmful effects of neighbourhood surroundings, should be given special attention through varies community-level activities (Choi and Matz-costa, 2018).

Park (2014) extended the empirical examination of proposals drawn from the Person-Environment Fit perspective. The study revealed that older adults in South Korea living alone with low socioeconomic status who live in a senior housing environment had a reduced risk of death. However, this could be seen as in contrast with Grundy and Glaser's study (2000) which stated that the causes of the links discovered between physical disability and socioeconomic status among the older people remain unknown (Grundy and Glaser, 2000). However, according to Robert and Li (2001), there are two types of socioeconomic status; individual and community. The link between community socioeconomic status (e.g., community poverty rate) and health is non-existent or weak during early adulthood, becomes stronger during middle age, becomes strongest at ages 60 to 69, and then becomes weak again at ages 70 and older. Community socioeconomic status impacts are stronger than or similar to individual socioeconomic status effects between the ages of 60 and 69 (e.g., income, education). This study highlighted that when examining the impact of socioeconomic status on health over the life course, the community socioeconomic status should be considered an important dimension of socioeconomic status (Robert and Li, 2001). This connects with P-E fit because the community socio-economic status is likely to contribute to aspects of the environmental press.

2.4.1 Older people and the walking urban environment

At present, planning for ageing populations has become a prominent issue throughout the world. This is due to the fact that the fertility rate is continuously decreasing among young parents, at the same time, the life expectancy of the elderly is also increasing (UN, 2013). This research defines older people as those aged 65 and above based on the definition by

the World Health Organization (WHO, 2019). Nevertheless, it is acknowledged that the age of an old person is defined differently by different people depending on their surroundings, beliefs and culture.

According to the 2011 Census, the number of older people aged 65 and above in England and Wales in 2011 was 9.2 million residents which is an increase of almost 1 million from 2001 with a number of 8.3 million.This increasing longevity has resulted in a rise in the number of the elderly making up a community and residing in the cities. In order to deal with the increasing number of elderly people in the urban areas, city planning has to take into account the needs of older people, specifically in terms of walkability and access between places in the city. Reduced mobility for example can be a feature of older age. As the number of elderly people living in the cities is increasing, it is essential for the policy to consider the walkability of the environment for older people in city planning and development.

Older people are vulnerable to social exclusion in the form of isolation from people, locations, facilities and services, which can limit their access to the sorts of opportunities that most people in society often take for granted. Thus, the purpose of this research is therefore to provide in-depth understanding of the importance of developing a walking-friendly environment for older people towards reducing social exclusion among older people, specifically in an urban area. To date, there is still limited research on ageing in the super-diversified 21st-century setting (Birmingham Policy Commission, 2014).

Fletcher (2006) posited the idea that an inclusive walking environment is about making places in which everyone can walk. Furthermore, Mollenkopf et al. (2004)

presented that walking has become a common form of travel among the elderly. This statement further strengthens the need to plan a walkable city, so that the older people can easily go from one place to another. In 1.3.1, it is mentioned that the type or purpose of walking will affect people's preference and experience in walkability (Millward et al., 2013; Learnihan et al., 2011). Therefore older people's preference and experience in walking in an urban area are influenced by the types of walking or purposes of walking.

Walkability for older people in urban areas is made possible by ensuring that urban city planning takes into account the safety of older people who wish to travel by foot, and that the design and structure of the built environment and adequate public transports will allow unlimited access to every part of the city. Musselwhite (2011) in the UK argues that the current city planning is not user friendly enough as older people face difficulties in accessing shops, banks and hospitals due to their loss of ability to drive, hence having to rely upon public transport to access these facilities. This finding is supported by Tsunoda et al. (2015) in their research on Japan. They found that the facilities are easily accessible when using private transport such as cars or motorcycles, but in order to handle these modes of transport, individuals require the competencies and abilities to drive. Driving, to everyone's knowledge, is highly associated with good physical and mental health which deteriorate with age. Therefore, walking has become a crucial means of transportation among older people and is chosen to replace other means of transportation due to its affordability and high accessibility (Roberts et al., 1996).

Thus, this research is conducted to study whether the city is walkable enough for older citizens, specifically older people aged 65 to 94, living in Birmingham. The study is carried out by considering the theoretical findings and reviews of the literature

related to the walkable city and older people. According to the policy of Birmingham City Centre Vision for Movement (Birmingham City Council, 2010), the city has been designed to include access for older people and people with different abilities by providing transportation and suitable street designs for the needs of older people and mobility impaired people.

2.4.1.1 Benefits of walking

The walkability of an urban area for older people is the main focus of this study as walking has many advantages not only for older people, but also for the whole generation in terms of physical and mental health. According to the WHO, the environment a person lives in determines how his or her independence, health and autonomy are aligned with their increase in age. Therefore, rather than focusing only on mobility, this study aims to go deeper into studying the walkability of an urban area for older people.

Siren et al. (2015) noted that mobility is important for an individual to stay connected to the community. Mehta (2008) presented that walking enables the older person to keep in touch with the surroundings compared to when driving. Keeping in touch with the surroundings is important to increase the sense of belonging among the elderly with the community they live in. This is due to the fact that loneliness and isolation can increase with the increase in age. This is evident in a study in Finland conducted by Jylhä (2004), where it was found that as people age, they faced increased risk to become lonely because of lack of social integration and increased physical and mental disability associated with age. This can also be connected with the lack of facilities to assist older people in walking around the city such as hand-rails, uneven pavements and high volumes

of traffic. When older people do not go out due to the lack of facilities, they may become isolated. So, walking helps the older people to stay socially active and mentally and emotionally stable by being involved in social interactions (Barnes et al 2016).

According to the National Institute for Clinical Excellence (NICE), walking has a positive impact on a person's health as it can reduce cardiovascular diseases by up to 30% and reduce all causes of mortality by up to 20% by reducing the risk of heart diseases, cancer, type-2 diabetes, obesity and strokes. A study in Korea provides support that walking in a forest improved arterial stiffness and pulmonary function among older Korean women (Lee and Lee, 2014). Another study conducted in Taipei City suggested regular brisk walking could promote and maintain older people's health (Lee et al., 2017). Walking allows older people as well as other age groups to be physically active and becomes an important determinant of health for them (Nagel et al., 2008).

Other than improving social life, avoiding isolation and loneliness and improving physical health, walking also promotes independence among older people. Urban areas are assumed to promote a self-determined way of life as they are packed both with people and facilities, such as banks, shops, hospitals, besides various means of transports that are not offered in a rural area (Fobker & Grotz 2006). However, indpendence requires the ability to access these facilities, therefore the environment should be accessilble for older people and where possible by walking.

This is further supported by Schmitz (2001), where he described that high population and numerous functional facilites are linked to increased social contacts and shorter distance between facilities. Shorter distance between facilities and the the homes of

elderly people will consequently encourage the older people to walk, leave the house and become less dependent on other people's assistance to fulfil their daily needs. Being able to walk from one destination to another encourages old people's decision to walk. Other than that, as mentioned earlier, one who exercises will certainly be more healthy. With good health, older people are more able to live independently in an urban area. However, independence ceases with the decrease in physical and mental health (Fobker & Grotz 2006). This shows that all the benefits of walking for older people are intertwined with one another, and the infrastructure of the urban areas has a great impact on the decision and ability of older people to walk.

2.4.1.2 Purpose of walking for older people in an urban area

Despite the well elaborated benefits of walking specifically for older people, it is not surpising that this group of people are least active in participating in physical activities. This is due to the fact that on average, mobility declines as age increases, so it is beneficial for older people to be living in urban areas that are equipped with facilities and amenities that are within reach (Day, 2008a). Ageing, therefore, is both cultural and physical change that happens to a human's body day by day, so as the body changes, its function declines and this affects the view of others. Furthermore, the physical changes can further affect the mental health as older people are more sensitive towards their surroundings, hence making them either suffer or triumph over urbanisation and spatial changes within a city.

Barnes et al's study (2016) proposed that the purpose of walking among older people is changed compared to walking for middle-aged adults, as the elderly are more free, and no longer confined by any responsibilities such as sending a child to school or

attending a meeting at work, so it could be said that the older people's decisions to walk are not affected by any factors other than their own choice in doing so. Moreover, in their study of walking among older and middle-aged Canadians, the authors found that one in six were considered to have walked a considerable amount while transitting from one place to another on public transit.

As mentioned earlier, it is seen as beneficial for older people to live in an urban area which is equipped with amenities and facilities that are close to each other. However, Bernard et al (2013) argue that age-friendly places should not only provide facilities that are accessible, but most important is how far the infrastructure supports older people's walkability as a whole. Older people need public transportation to access the urban area. Research on public transport (Garrido, 2013) showed that the structure of the public transport network determines the results regarding equity. Measuring equity through access to education, health and social services by public transport compensated to a certain extent for inaccessible location. A more detailed analysis of the demand would highlight the worst-affected social groups, including older people. Consequently, a study of the socio-economic and demographic characteristics of the neighbourhoods with the worst levels of equity would give a deeper insight into the real impact of the worst accessibility on particular population groups, namely older people in this study.

Kauffmann, Bergman and Joyce (2004) proposed three elements that affect the elderly's choice to participate in walking or physical activities which are, namely, spatial accessibility to services and facilities in the area, physical ability and individual projects. This is strengthened by the findings of a study in an urban city of Bonn in Germany by Fobker and Grotz (2006) which found that for the urban area to be beneficial for the older

people, it is essential that the older people are free to move. However, they further argue that this freedom is made impossible by the barriers to mobility which are a common characteristic of an urban area. Nevertheless, older people do make the choice to walk for the purpose of recreational activities with a companion and also to shop.

Many reasearch studies have found that shopping is one of the main reasons for older people to walk. Banister and Bowling (2004) in their study in England found that the elderly go out to shop. This is also supported by Lord, Joerin and Theriault's study (2009) in Greater Montreal Area and Vandersmissen's study (2012) in Quebec City which yielded similar results. Shopping precincts and supermarkets are often favoured by older people in urban areas as shopping complexes are considered complete in providing groceries, accessible ATM machines and even recreational space with benches for resting. Despite this practicality in terms of maximising the purpose of one visit to a building, a shopping centre, a study conducted by Biba et. al (2008) proved that urbanisation and commercialisation of urban areas has led to reduced accessibility by foot as the shopping complexes and commercialised areas are often built in areas which are quite far from neighbourhood areas and hence, can only be accessed by public transport or motorised vehicles. Smith and Sylvestre (2001) previously argued that in Winnipeg, only 18.1% of the elderly lived 500 m away from a food store and the closest food store was 1 km–2 km away for 32.4% of elderly people. This indicates a decrease in accessibility by foot particularly for the elderly, ageing in an urban area, making it hard and challenging for them to shop, leading to decreased physical activity and increased health problems. Other than shopping, another purpose for walking among older people is for recreational activities usually with a companion; most commonly a dog (Moniruzzaman et al., 2015; Sehatzadeh et al., 2011).

In summary, the PE fit theory helps this study to understand why it is important to give attention to the urban walking environment and why it is critical for older people especially. The idea of the walkable city is that it has been designed and developed for all. However, in order to claiming spatial justice in a walkable city, there is a critical need to consider the dynamic between competencies and environmental press among older people while walking in the urban environment.

2.4.2 Barriers to walking among older people

According to the person-environment fit theory (Lawton and Nahemow, 1973), barriers or challenges to walking among older people relate to the level of individual competency and the level of environmental press surrounds. In addition, it was mentioned by Iwarsson (2005) that environmental press can increase the vulnerability of older adults. Previous literature highlighted physical and social barriers to physical activities and specifically on walking among older people. Barriers that have been regularly highlighed from studies across different countries include poor sidewalk availability and condition, poor road crossing availability, heavy or fast traffic, hills, lack of resting places, poor siting of key services such as shops, and safety concerns (Rosenberg et al 2013; Rantakokko et al., 2010; Musselwhite and Haddad, 2010; (Day, 2008b). However these studies have been based mainly on studies lof residential surroundings and neighbourhoods, and there has been limited work examining barriers to walking in city centres.

2.5 Theoretical Framework - Promoting spatial justice though facilitating older person-environment fit in a walkable city centre

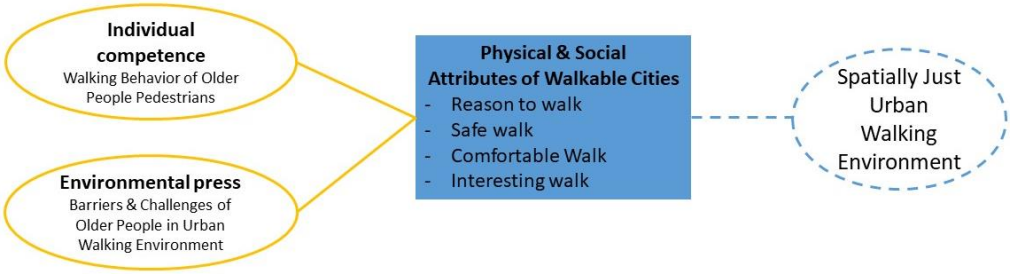


Figure 2.5 Theoretical Framework

Source: Author's construct (2021)

The theoretical framework of this study is formed by three main theories; 1) theory of spatial justice, 2) theory of a walkable city, and 3) theory of person-environment fit.

First, this research starts by exploring the concept of a walkable city in urban planning. Southworth's research (2005) provide support on the relevance of the walkable city concept in promoting a sustainable and resilient city. According to Speck (2012), a walkable city will provide four things; 1) a reason to walk, 2) a safe walk, 3) a comfortable walk and, 4) an interesting walk.

Second, spatial justice is an important theory in claiming justice or injustice in relation to geographical and urban planning. The theory of spatial justice was extended from the theory of social justice, and discussed space as socially produced through social interaction and activities. Fainstein (2009) and Soja (2010) explain the concept of spatial

justice focused on spatial aspects related to geographical justice and injustice related to the fair and equitable distribution of resources, services, and access, especially in urban planning.

Then, narrowing down into the walkable city issues and challenges, this study found that there are gaps among older people in access and walking in urban environments. The attempt to prodece a walkable city space creates geographical issues where a walkable city project usually concentrates in a city centre area. Known as one of the least advantaged groups of people in the geographical context of a city centre, it is a call claiming for spatial justice among older people in using or accessing a supposedly walkable city centre.

Lastly, in order to unpack the main research aim, the person-environment fit theory is being used in this study to understand older people's needs walking in an urban environment. The person-environment fit theory highlights the compatibility between person and their environment. According to the person-environment fit theory, older people are defined as a set of competencies and the urban walking environment is defined as a press or demand.This study argues that older people's needs in walking especially in a city centre are less discussed in previous literature.

2.6 Summary

Walking is common among people of all ages, but walking in urban areas might be perceived differently by older people aged between 65 to 90 as traditionally, a lack of attention has been given to the planning of urban areas, especially city centres, for the benefit of older people. Due to the fact that an aging population in cities is in creasing and will continue to increase in coming decades, city planning will increasingly need to take into consideration older people's needs specifically by providing a walkable city to ensure the possibility of an active lifestyle in older age.

Spatial justice comes into debate as the need for city planning to be inclusive of older people becomes inevitable. According to the statistics from the United Nations (2005), the percentage of the population aged 65 and above residing in North America and Western Europe will reach 16.1% and 21.3% by the year 2020 respectively. This number is increasing by the day, so it is of the utmost important that the urban areas are developed to fulfil the needs of older people as physical aging is not a choice.

Glass and Balfour (2003) posit that physical aging is as its name suggests; the physical changes an individual faces as he or she ages. Due to these changes, older people are more sensitive to the occurrences around them and their surroundings. As mentioned earlier, globalisation has led to urbanisation, where space is continuously being commodified as a means of capital accumulation for the ruling class. In this sense, Brenner and Theodore (2002) have argued that the rights of the marginalised group within a society will be abused by the dominance of space by the dominant group. The urban

space is therefore being developed to meet the needs of the elite group rather than providing spatial justice as debated.

Given the current emphasis on sustainability and inclusivity, the voices of older people will need to become more central to the planning process (Hockey et al., 2013) so that their specific needs can be understood. As for example, although weather and safety showed less strong relationships with physical activity (Humpel et al., 2002), for older people, it had significant associations as it affects their decision to walk. In particular, hearing the voices of older people develops our knowledge of how older people age in urban places, and the environmental and social factors that can contribute to facilitate walkability, security and safety.

Bassett (2013) argues that spatial justice can be achieved if spatial quality is achieved (a positive measure). Spatial claims for justice or injustice in a city connect to the long-run expectations of one's ability to live, work, or experience (Bassett, 2013). Through consideration of age (Day, 2010a) and maximisation of justice or fairness for the least advantaged social groups (Altham, 1973), spatial claims (ability to live, work, or experience space) could be integrated into urban planning policies in order to achieve spatial justice in a city.

The relationship between the social health of the elderly and the urban environment has been under-researched to date (Alidoust and Bosman, 2015). The negative, ageist attitude throughout societies that believe older people are unable to make their own decisions, or disregard those choices when they do, contributes to older people being

prevented from having agency (Small, 2018) including in the production of space. This study aims to contribute to addressing these gaps.

CHAPTER 3 METHODOLOGY

3.1 Introduction

The overall aim of this study is to explore the extent to which the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people. The preceding thesis chapters explain four research questions providing the impetus for this study.

1. RQ 1: What are older people's perceptions of walking, and what do they expect from a walkable city?
2. RQ 2: To what extent do older people experience Birmingham City Centre as walkable?
3. RQ 3: To what extent and in what ways are the walking needs of older people considered in the planning of Birmingham's redeveloped City Centre?
4. RQ 4: To what extent does the planning of Birmingham City Centre as a walkable city promote spatial justice for older people?

This methodology chapter details a qualitative study comprising an in-depth case study approach to explore the qualities of an inclusive walkable environment that will promote a good quality of ageing life in an urban area, specifically the city centre of Birmingham, UK This study suggests that the findings from this in-depth case study of the city centre of Birmingham will provide insights into issues and barriers among older

people in an urban walking environment that are relevant to critical thinking around wider trends of what is happening in city redevelopment globally.

A triangulation approach has been adopted to answer the research questions and objectives. The triangulation approach in this study involves four stages in a qualitative approach:

1) The first stage employed focus groups with groups of older people who have experienced walking in and around the city centre of Birmingham to investigate walking patterns and issues among older people in the city centre.
2) The second stage employed semi-structured interviews with older people who have experienced walking in and around the Birmingham City Centre in order to get in-depth understanding on older people's barriers and challenges in walking.
3) In the third stage, semi-structured interviews were conducted with purposively selected practitioners who are directly or indirectly involved in planning and designing a walkable city.
4) In the last stage, policy documents relating to the development of Birminghams walkable city centre were collected from relevant stakeholders and from online sources, following the recommedations of the practitioner interviewees.

This chapter is organised according to the sequence of the methodological approach. The chapter starts by explaining the overall reseach approach, design and research strategies. Next, in the data collection stages and tools involving older person participants, and practitioners are discussed in detail, and also the collection of relevant policy

documents. Lastly, this chapter details the stage of data analysis procedures and techniques followed by ethical considerations, positionality and limitations of this study.

3.2 Overall research approach

Philisophical paradigms or beliefs remain largely hidden in research and influence the practice of research. The types of philosophical paradigms will often lead to embracing a qualitative, quantitative, or mixed methods research approach. Although there is ongoing debate about the paradigms that researchers bring to inquiry, Creswell (2014) highlights four major philosophical paradigms that are widely discussed in the literature: postpositivism, constructivism, transformative and pragmatism. Since postpositivism or positivist/postpositivist research is the scientific method of research, constructivism and transformative paradigms are more relevent to this study. Constructivism or social constructivism is an approach underpinning qualitative research. Constructivism focuses on the specific contexts, in this case those in which older people live and get around in order to understand their historical and cultural settings (Creswell, 2014). However, a constructivism paradigm does not go far enough in advocating for an action agenda to voice out older people's needs and barriers in the walking environment. Thus, the transformative paradigm holds that the research inquiry needs to be intertwined with politics and a political change agenda to confront exclusion, for example of older people.

According to Jackson and collegues (2018), the transformative paradigm is a research framework that focuses on the experiences of marginalised communities such as older people, allows investigation of what has led to marginalisation, and links research findings to actions intended to lessen inequalities. In an extension to constructivism, a transformative paradigm advocates for an action agenda to help marginalised people, namely older people in this study. Planning recommendations for an inclusive walking

environment that may change the quality of older people's ageing life and social participation in urban areas are embedded in the discussion chapter of Chapter 8.

3.3 Strategy – A case study design

In order to further research the subjective measures of walkability, this study conducted a qualitative study comprising an in-depth case study approach to explore tangible qualities and issues of ageing life in an urban walking environment, specifically in the city centre of Birmingham. Creswell (2014) explained five approaches to research design: biography, grounded theory, ethnography, case study, and phenomenology, and this study adopts the case study research design. The case study constitutes an approach to the study of singular entities, which may involve the use of a wide range of diverse methods of data collection and analysis (Willig, 2008). As referred to in the main 'open-ended' research question of this study, ***to what extent the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people***, it is promising therefore that a qualitative case study approach would be appropriate to frame this type of research design. Supported by Yin (1994), a case study research method is one of the most likely to be appropriate for 'how' and 'why' questions.

A case study research design is a well-established approach to understanding older people's experience as it investigates one or a small number of cases, collecting and analysing a large number of features in each case (Silverman, 2010). In this study, a case study approach is useful for finding out more detail about walking in later life and in a focused way describes the reality of what is happening in the context of an urban area.

Social science may be strengthened by the execution of more good case studies. A case study is a necessary and sufficient method for certain important research tasks in the

social sciences, and it is a method that holds up well when compared to other methods in the range of social science research methodology (Flyvbjerg, 2006). Further, this study adopts a single in-depth case study based on five reasons given by Flyvbjerg (2006) :

1. In the study of human affairs, including older people, there should be no speculation or predictive on theories or universals. Understanding of the reality, context-specific knowledge is thus more important and valuable than hunting for universals and predictive models.
2. The case study may be crucial to scientific advancement via generalisation as a supplement or alternative to other methodologies, as it is often possible to generalise from a single case. Formal generalisation, on the other hand, is overrated as a source of scientific progress, whilst ‘the force of example' is neglected.
3. - The case study can be used to generate and test hypotheses, but it is not restricted to only these research activities.
4. The case study is no more biased than other methods of inquiry in favour of confirming the researcher's previous beliefs. On the contrary, experience suggests that the case study is more biased toward challenging preconceived beliefs than verifying them.
5. Case studies are generally difficult to summarise, especially when it comes to the case procedure and case outcomes, but the difficulties in summarising case studies, are typically related to the attributes of the reality being researched rather than being a case study per se.

3.3.1 Birmingham City Centre as a case study

Conducting multiple case studies may arguably be more convincing than a single case study (Yin, 1994), but this study is conducted as a single case study to concentrate on a walkable city project in the city centre of Birmingham, looking at it in detail and specifics. As Thomas states, “a case study is about the particular rather than the general” (2011, p.3). This research study believes that the findings from this case study might be helpful to other cities in the world as it is believed that generalisability of case studies can be increased by the strategic selection of cases (Flyvbjerg, 2006).

In the United Kingdom, Birmingham is a large and ethnically diverse city with more than one million residents (Birmingham City Council, 2014b). Birmingham has been selected as a case study for this research because as the second largest city in the UK, the city centre of Birmingham is in the process of a lot of redevelopment and it recently made some relevant strategies that focus on urban regenaration. Regeneration within urban areas in the UK has largely been confined to the centres (Central Business Districts (CBD)) and inner city areas which are located in a zone surrounding the CBD. Inner city areas saw very rapid growth as manufacturing and residential areas during the industrial revolution in the 18th and 19th centuries. Since the mid 1970s some inner city areas have become less popular as places to live and as locations for economic activities (Bennet, 2011). One such inner city area where regeneration by a number of different groups or players has taken place is the city centre of Birmingham. In the last 30 years central government has introduced a variety of schemes in specific parts of urban areas, such as:

- Property-led regeneration through urban development corporations

- Partnerships between local and national government and privately owned companies
- City Challenge projects / Flagship projects
- Sustainable communities

Such regeneration schemes have focused on the economy of the area, largely by the creation of job opportunities or by improvements in communications; on social improvement (eg improving educational and training opportunities); and finally, on environmental improvements such as revitalising green spaces or by the creation of new parks in urban areas.

In line with the central government schemes' efforts above, Birmingham City Council announced the Birmingham's Big City Plan in October 2010 to redevelop 2000 acres of land in the city centre of Birmingham for vibrant and liveable vision of the city. The development focus involves on the city core and transportation network improvement, where it provides a vision of how the Birmingham transport network can support the city's future economic and social vitality.

More details on the context of Birmingham as a case study are provided in the next chapter, the Chapter 4.

3.4 Qualitative research strategy

Within topics of urban planning and walking among older people, research using qualitative methods has provided important insights into a range of topics including physical activities (Lee et al., 2017; Franco et al., 2015) and health (Day, 2008a; Phoenix, 2018), active ageing (Paoletti, 2015), walkable neighbourhoods (Day, 2010b; Brookfield, 2017), quality of life (Lette et al., 2017), barriers and facilitators of walking (Lockett and Willis, 2005; Horne and Tierney, 2012) to name but a few.

A qualitative research study has much to offer in respect of a social understanding of ageing life in an urban walking environment. Qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem (Creswell, 2014). A qualitative research study can give more insight into the meaning of feeling safe or at risk, interests, and comfort, the history and the dynamic processes of development, and perception of a walkable neighbourhood (Talen and Koschinsky, 2013).

Transformative research involves questions and procedures emerging deductively from the literature reviews, data collected in the participants' setting, data analysis inductively and deductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data.

As suggested by the transformative paradigm, a qualitative method, a single case study approach was used to investigate the topic under study. This study adapted

sequential exploratory design which entails the collection of qualitative secondary data of the study context before the primary data collection phase through the methods of interviews and focus group discussion. Discussion groups using participatory appraisal techniques and in-depth interviews with older people were utilised in order to investigate the intangible side of older people's perceptions and expectation on the provision of a walkable city environment ~~the influence of subjective factors~~. These enabled an in-depth exploration of the features of decision-making that stemmed from not only living in a particular area but also from how the biographical and social context of individuals led to decisions to use, or not use, the available walking environment.

The rationale for using various qualitative methodologies in this study is to seek convergence and validation of findings from different methods such as triangulation and seek elaboration, enhancement, and clarification of the findings from one method with results from the other method in a complementary way (Greene et al., 2001). With regard to urban planning research, a qualitative approach provides an in-depth understanding of the interrelationship between practice and theory, for it has to do with the possibilities and limits on what can be accomplished through actions addressing the use of space in cities (Marcuse, 2009). A combination of qualitative approaches also enables the unpacking of the research problem of this study from two angles, in top-down and bottom-up approaches.

While the focus group discussions and interviews with older people formed he bottom-up approach, the top-down approach involved semi-structured interviews with the practitioners where the issues of planning and provision were discussed.

The aim of the top-down approach through semi structured interviews is to investigate the vision of practitioners whose practice will affect the configuration of the built environment, and the extent and means by which they address older people's needs. The discussion included issues and challenges that planners or stakeholders faced in planning and designing a walkable city. A further aim was to explore the level of awareness among planners or stakeholders about provision for older people. The findings from the semi structured interviews with the professional group were also intended to contextualise and complement the policy and strategy documents' content analysis better.

3.5 Data collection

This section explains four stages of data collection that been used in this study: 1) focus groups with older people, 2) semi-structured interviews with older people, 3) semi-structured interviews with the purposive samples of professional participants, and 4) policy documents' collection related to Birmingham's walkable city development that have been retrieved from the related stakeholders or from the online open sources.

3.5.1 Focus groups with older people

In the first stage of data collection, this study conducted focus group discussions in order to collect and collate data from older people as participants. The main objective of these focus group discussions was to draw the walking trends or patterns among older people especially in Birmingham City Centre. Thus, focus group discussions were conducted as referred to in several previous successful focus group studies (Mead et al., 2015; Lee et al., 2017; Hammond and Musselwhite, 2012) with the purpose of obtaining older people's expectations and experience in walking. A focus group method is a form of a group interview in which there are several participants in addition to the moderator/facilitator; there is an emphasis in the questioning on a particular tightly defined topic, and the emphasis is on interaction within the group and the joint construction of meaning (Bryman, 2016). A focus group contains elements of two methods (Bryman, 2016): 1) the group interview, in which several people discuss a number of topics; and 2) what has been called a focused interview, in which interviewees are selected because they are known to have been involved in a particular situation and are asked about that involvement.

The focus group method applies the element of interaction within groups as an area of interest and is more focused than the group interview. The intention was that through the focus group method, it would be possible to concentrate on the specific theme of walkability to explore it in depth as one way of supporting older people's participation in the city centre.

3.5.1.1 Sampling

Purposive sampling was used to select participants for focus groups of older people, as it is suitable for case study research in making a decision on who or what should be sampled and how many participants to be sampled. For the focus groups with older people, the potential participants were enlisted through public agencies such as Age UK and Age Concern, and voluntary social centres such as faith & community centres, social clubs and University groups in Birmingham.

This study followed Macnaghten and Jacobs' sampling size guidelines for the time frame and capacity of this study. Four focus groups with a size range of each group between four to five people were conducted. Morgan (1998) also recommended a smaller group size to control for the 'no-shows' problem, where participants who agreed to participate do not turn up on the day. This is because a smaller group brings more sense of responsibility and avoidance. With the total number of participants in these four focus groups at eighteen participants, it was found sufficient to gain understanding of and identification with the issues of walking experience among older people in the city centre of Birmingham (Silva & Wright, 2005; Bennett et al., 2009).

For the purpose of this study, the sample of focus group participants met the following criteria:

1) Participants should be 65 or older, able to walk, independent in their daily life activities, mentally healthy and able to communicate their experience. Those with significant mental health difficulties, cognitive impairment or who are not able to walk and travel independently (with/without walking aids) were not included.
2) Participants must be able to communicate in English to share their experience and views with peers and researcher.
3) Participants should have living experience for a minimum of one year in Birmingham city.

3.5.1.2 Recruitment and execution

Contacts with older people groups emerged from the investigation of the researcher within the study context phase, which allowed the identification of potential gatekeepers such as community group leaders, officers or social workers. These gatekeepers were approached to establish the first contacts with the organizations or social centres. Then, the gatekeepers helped to promote and distribute the study advertisement flyer (see Figure 3.11), and collected the contact details of the interested or volunteered persons to be contacted by the researcher. As an incentive, this study offered a small gift of £20 shopping voucher card (M&S, Tesco or Sainsbury) for each participant.



Figure 3.1Recruitment flyer when contacting focus groups and interviews participants (attachment to email)

The list of potential participants that was collected by the gatekeepers was contacted through telephone conversations for further consent. Then, the poster, information sheet and consent form were emailed to them after they had expressed their initial interest in participating in the research through the telephone conversations. If a telephone call or email was not possible, a message giving details of the appointment for focus group discussion was passed through the gatekeeper, and the briefing session regarding the introduction, obtaining the consent form, and acquiring demographics data was arranged as a walk-in, before the focus group discussion started.

Then, the researcher approached the participants to set an appointment to conduct the focus group discussion at the time and place scheduled by the researcher. Table 3.1 shows that the focus group discussions conducted with scheduled times and dates. The focus group discussions started with an introduction and briefing by the researcher as the moderator of the group. The focus group discussions took approximately one to one and a half hours.

Figure 3.2 Focus group discussion with older people

No.	**Name Code**	**Date of Interview**	**Place of Interview**	**Age**	**Gender**
1	FGOC_01	12.01.2017 (10.00 am)	Sports & Community Centre	84	Male
2				85	Female
3				80	Female
4				80	Female
5				74	Female
6	FGOC_02	19.01.2017 (10.00 am)	Sports & Community Centre	70	Female
7				64	Female
8				69	Female
9				66	Female
10				69	Female
11	FGOC_03	06.02.2017 (10.00 am)	Church Centre	73	Male
12				72	Female
13				75	Female
14				75	Male

15	FGOC_04	20.02.2017 (10.00 am)	UniversityMeeting Room	71	Female
16				66	Female
17				74	Male
18				79	Male

Source: Researcher (2019)

A total of four groups of focus groups discussions were conducted. The participants were grouped according to their social centres so that the participants felt more comfortable talking to familiar faces. Each group discussed a set list of themes that reflected the variables to be studied and needed to be explored during the research. Besides obtaining the individual background and context, the themes were organised as below (refer to Appendix 1 for details):

- Theme 1: Perception of a walkable city.
- Theme 2: Walking experience and social participation in the city centre of Birmingham.
- Theme 3: Special needs for walking in the environment of the city centre of Birmingham.
- Theme 4: Involvement in a Walkable City's planning and development.
- Theme 5: Regulations that support a good quality of healthy ageing in the city centre of Birmingham.

3.5.2 Semi-structured interviews with older people

Next, this study conducted individual interviews with older people (different participants from the focus group discussions) in order to understand better older people's experience and expectations on walking in a city centre context area. Interviews with older people regarding their experience of walking have been carried out before by several published studies (Newton et al., 2010; Franke et al., 2013; Zandieh et al., 2017). However, less attention has been given to the experience of older people walking in city centres. Thus, these individual interviews allowed participants to elaborate more on their walking experience and allowed the researcher to investigate further on the challenges and issues of walkability among the least advantaged group of people, namely older people, within the study context of Birmingham City Centre.

An interview is among one of the most widely employed methods of qualitative study in social science. As a "conversation with a purpose" (Berg, 1989, p.13), the interview is a technique used to understand the views and experiences of people on a specific theme related to the study (Seidman, 1998). In interviews, the interviewer works directly with the interviewee where it provides an opportunity for face-to-face interaction between two persons. The interviewer is considered as part of the measurement instrument. So, the interviewer has to be well trained in facing any contingency (Alshenqeeti, 2014). And the main task of interviewing is to understand the meaning of what the interviewee says on his or her opinions or impressions on describing the meanings of selected themes in the subject areas: in this case, walking experience and provision of walking built environment.

There are two main types of interview in qualitative research, an unstructured interview and a semi-structured interview (Bryman, 2016). Both are usually referred to as a qualitative interview, that can encourage respondents to talk freely often around emotionally loaded topics to gain an insight into how people feel and think about a research topic under investigation (Roberts, 2014). However, as being used in this study, the semi-structured interview refers to a context in which the interviewer has a series of questions that are in the general form of an interview guide but can vary in the sequence of questions. The questions were more general in their frame of reference that the questions typically found in a structured interview schedule. Moreover, the interviewer usually has some latitude to ask further questions in response to what are seen as significant replies.

3.5.2.1 Sampling

As explained in the focus group sampling section, the sample of older people chosen for the semi-structured interviews were also the same inclusion criteria as for focus group (see 3.5.1.1).

3.5.2.2 Recruitment and implementation

As discussed in the focus group recruitment and implementation section (see 3.5.1.2), the recruitment strategies of older people for the semi-structured interviews were very similar, depending on the willingness of participants to participate in a group or

individually. However, the recruitment strategies for the semi-structured interviews in this study are outlined in three approaches (Bryman, 2016):

1) As mentioned in the 3.5.1.2, recruitment through a gatekeeper that involves stakeholder organisations actively assisting in the recruitment of participants for semi-structured interviews too. For the purpose of this study, the researcher made contact with a 'middle organisation' from the city or town council, this case the Birmingham City Council, public agencies such as Age UK Birmingham and Age Concern, and voluntary social centres such as faith & community centres, social clubs and university groups in Birmingham. More than 25 social clubs and organisations with older participants were contacted with a view to recruiting participants. The person in charge was visited or spoken to in order to explain the study and to request a visit to the social group. The researcher endeavoured to recruit interested participants and left contact information with the group.

2) Snowball sampling strategy or researcher-driven recruitment where the researcher with the support of an organisation with an interest in the research used email, letters, flyers, and telephone calls to solicit interest in participation. This snowballing technique was also be used where those who agreed to participate in the study were asked if they had friends or acquaintances who may be interested to participate and who would be willing to be contacted.

3) Spontaneous recruitment that arose when individuals volunteered to participate having heard about the research through others, especially through the social centres' members.

Then, similar to the focus group discussions, the execution of semi-structured interviews started with the researcher approaching the participant to set an appointment and preparing the interview schedules. As a result, 45 participants of the age of 65 and over participated in semi-structured interviews for this study. Table 3.2 below shows the scheduled times, dates and places for the interviews. The interview session started with an introduction and briefing by the researcher. The interview session took approximately one hour for the shortest and three hours for the longest.

Figure 3.3 Semi-structured interviews with older people

Code	**Date of Interview**	**Place of Interview**	**Age**	**Gender**
IIOC_01	20.02.2017	Religious Centre	83	Male
IIOC_02	12.01.2017	Sports & Community Centre	82	Female
IIOC_03	12.01.2017	Sports & Community Centre	65	Male
IIOC_04	18.01.2017	Coffee House	71	Female
IIOC_05	19.01.2017	Sports & Community Centre	82	Female
IIOC_06	19.01.2017	Sports & Community Centre	77	Female
IIOC_07	26.01.2017	Sports & Community Centre	63	Female
IIOC_08	26.01.2017	Sports & Community Centre	71	Male
IIOC_09	26.01.2017	Sports & Community Centre	72	Female
IIOC_10	26.01.2017	Sports & Community Centre	72	Female
IIOC_11	08.02.2017	Coffee House	75	Female
IIOC_12	09.02.2017	Sports & Community Centre	66	Male

IIOC_13	13.02.2017	Coffee House	70	Male
IIOC_14	14.02.2017	Coffee House	67	Female
IIOC_15	15.02.2017	Coffee House	82	Female
IIOC_16	15.02.2017	Community Centre	74	Male
IIOC_17	16.02.2017	Coffee House	68	Male
IIOC_18	16.02.2017	Coffee House	71	Female
IIOC_19	21.02.2017	Coffee House	82	Male
IIOC_20	21.02.2017	Coffee House	71	Male
IIOC_21	21.02.2017	Coffee House	71	Female
IIOC_22	22.02.2017	Coffee House	71	Female
IIOC_23	22.02.2017	Coffee House	74	Female
IIOC_24	23.02.2017	Retirement Village	93	Female
IIOC_25	23.02.2017	Private Residential	82	Female
IIOC_26	24.02.2017	Coffee House	75	Female
IIOC_27	24.02.2017	Coffee House	70	Female
IIOC_28	27.02.2017	Coffee House	71	Female
IIOC_29	28.02.2017	Coffee House	75	Male
IIOC_30	28.02.2017	Coffee House	79	Male
IIOC_31	01.03.2017	Coffee House	73	Female
IIOC_32	01.03.2017	Private Residential	68	Male
IIOC_33	01.03.2017	Private Residential	99	Male
IIOC_34	03.03.2017	Coffee House	76	Female
IIOC_35	03.03.2017	Coffee House	75	Male
IIOC_36	06.03.2017	Coffee House	73	Female

IIOC_37	06.03.2017	Coffee House	82	Female
IIOC_38	07.03.2017	Coffee House	71	Female
IIOC_39	08.03.2017	Private Residential	81	Female
IIOC_40	08.03.2017	Coffee House	71	Female
IIOC_41	09.03.2017	Coffee House	91	Female
IIOC_42	10.03.2017	Coffee House	74	Male
IIOC_43	14.03.2017	Coffee House	74	Female
IIOC_44	20.03.2017	Coffee House	72	Male
IIOC_45	06.04.2017	Coffee House	72	Male

Source: Researcher (2019)

Table 3.3 summarises the age and gender of older participants for semi-structured interviews of this study. The largest category of the participants were female, from the 70's age category, however participants were aged up to being in their 90s and covered both male and female adequately for qualitative analysis.

Figure 3.4 Age and Gender

		Age Categories				
		60s	70s	80s	90s	Total
Gender	Male	3	8	3	0	14
	Female	7	16	7	1	31
Total		10	24	10	1	45

According to the table 3.4 below, 82.2% of the respondents, are pensioners. The majority are from the 70s and 80s age categories.

Figure 3.5 Occupation of Older People Respondents

		Occupation Categories					
		Retired	Semi-Retired	Professional	Housewife	Others	Total
Age	60s	7	1	1	1	0	10
	70s	19	1	2	0	2	24
	80s	10	0	0	0	0	10
	90s	1	0	0	0	0	1
Total		37	2	3	1	2	45

The yearly income figure 3.5 below shows 73.3% of the older peopleparticipating in interviews were from the low and middle group income groups.

Figure 3.6 Yearly Income

		Yearly Income					
		less than £10,000	£10,000 - £19,999	£20,000 - £29,999	£40,000 and above	Not stated	Total
Age	60s	4	4	1	0	1	10
	70s	7	10	3	1	3	24
	80s	2	5	3	0	0	10
	90s	0	1	0	0	0	1
Total		13	20	7	1	4	45

28.8% of the interviewees were living with apartner, while majority were living alone, either divorced, widowed or single.

Figure 3.7 Marital Status

		Marital Status					
		Married	Divorced	Widow	Single	Not stated	Total
Age	60s	3	2	0	5	0	10
	70s	7	8	5	2	2	24
	80s	3	1	4	2	0	10
	90s	0	0	1	0	0	1
Total		13	11	10	9	2	45

The list of themes for semi structured interview were similar to the focus group (see 3.5.1.2), but with a longer list of questions in the semi-structured interview. Focus group discussion was conducted in order to get a general idea of walking pattern among older people in Birmingham City Centre. As compared to the semi-structured interview session allowed more in-depth answers from the participants as they were one-to-one and private sessions.

3.5.3 -Semi-structured interviews with practitioners

3.5.3.1 Sampling

This study also conducted semi-structured interviews with a sample of professional people in order to investigate their professional views on provision for older people in planning and developing an inclusive urban walking environment. Informed by the literature review on walkability, the identified stakeholders required to answer the research questions were practitioners and academics from spatial and transportation

planning, architects, landscape architects, urban designers, civil engineers, public representatives and public health and advocacy practitioners.

The study participants in the professional group were purposely chosen to meet the following criteria:

1) Participants should be involved in a walkable city project and/or managing the older people's walking activities project.
2) Participants were working in the study area (Birmingham) for more than one year.

3.5.3.2 Recruitment and implementation

Interviews with practitioners provided opportunities to address issues that emerged during the field survey (focus group and interview) with older people. Therefore, this study looked purposively for those who have professional experiences and were involved in the walkable city planning and development projects specifically in Birmingham City Centre.

This study did not state any number limit in recruiting sample for this professional semi-structured interview, but aimed to have 10 to 20 respondents from the practitioners. This study contacted 27 various organizations, consisting of public organization of Birmingham City Council, their partners such as West Midlands Canal & River Trust and Peter Brett Associates, and the NGO's such as Age UK, Age Concern, Groundwork West Midlands and Living Streets. An explanatory letter and a consent form were emailed to the potential participants, followed up with telephone calls. As a result, 11 respondents from 7 organizations ~~turns~~ agreed to participate. Eventually, interview sessions were arranged and conducted with the respective professional individuals listed in Table 3.8.

Figure 3.8 Semi-structured interviews with the practitioners

Code	Date of Interview	Place of Interview	Organisation	Form of Sharing
IP_01	18.01.2017	Office	Transport for West Midlands	Taped Conversation Interview
IP_02	20.01.2017	Coffee House	University of Birmingham	
IP_03	20.01.2017	Coffee House	Groundwork West Midlands	
IP_04	07.02.2017	Office	West Midlands Canal & River Trust	
IP_05	13.03.2017	Office	Birmingham City Council	
IP_06	23.03.2017	Office	Birmingham City Council	
IP_07	09.06.2017	Community Centre	Birmingham City Council	
IP_08	30.06.2017	Coffee House	Living Streets	
IP_09	11.07.2017	Council House	Councillor	
IP_10	30.06.2017	Coffee House	Living Streets	Formally Written Responses
IP_11	30.06.2017	Coffee House	Living Streets	

Source: Researcher (2019)

The 11 participants who agreed to participate were from the professional groups of Birmingham City Centre–Birmingham Smithfield authorities consisting of local government agencies; the City Centre Development Team of Birmingham City Council, Transport for West Midlands, Transport Policy Team of Birmingham City Council, Wellbeing Service of Birmingham City Council, and the NGOs such as Groundwork West Midlands, Canal & River Trust, and Living Streets. Some of the participants were recruited using the snowball method (Neuman, 2014; Creswell, 2014), where participants were asked to recommend for interviewing other individuals who are co-responsible for walkability and older people's well-being. Participants were asked to choose between two forms of sharing their experience: taped conversation interviews and formally written responses (Bryman, 2016; Neuman, 2014). Two out of 11 participants chose to return formally written responses while the others participated in the taped conversation interviews.

The participants who were interested in taking part in the study were asked to contact the researcher to set an appointment to conduct the interview at the time and place most convenient to them. A follow-up telephone call was also made by the researcher to set up the appointment dates, times and place. The interview session took 30 minutes the shortest and one and a half hour the longest.

Based on the main research questions, this study set a list of themes that reflected the variables to be studied and needed to be explored during the research. The themes were organised as below:

- Professional background context.
- Meaning and ideas around a walkable city concept.

- Walkability issues and provision for older people in the environment of the city centre of Birmingham.
- Planning policies and projects towards a walkable city concept around the city centre of Birmingham.
- Walking programmes or activities for older people around the city centre of Birmingham.
- Consultation or participation of older people in planning a walkable city centre in Birmingham
- Regulations that support a quality of healthy ageing in the city centre of Birmingham.

3.5.4 Collection of relevent policy documents

The process started with finding related policies and strategies documents online, through the google.com platform with relevents themes or keywords such as Birmingham City Centre, walkable city, walking, pedestrian and city planning. Then the policies and strategies document searching process continued with the prior suggestion from professional and older people participants after the primary collecting data process started.

Thus, as a result of the process above, the selected policies and strategies documents have been short listed. The main strategic policy document that was identified to support this study is The Big City Plan, which was announced in October 2010 by Birmingham City Council. The Big City Plan is the masterplan for the city centre of Birmingham which involves a range of studies and background works such as the Birmingham City Centre

Masterplan (Birmingham City Council, 2011b), Birmingham City Centre Vision For Movement (Birmingham City Council, 2010), Interconnect Birmingham Vision For A Walkable City (Birmingham City Council, 2011a) and The City Centre Design Strategy.

3.6 Data analysis

3.6.1 Primary data

This study follows Yin (2011) in analysing the data. It had five stages of process consisting of compiling of data, disassembling, reassembling, interpreting and drawing conclusions from the primary and secondary data. The first process of data analysis started with compiling the data. It is a process whereby the raw data were transferred to a formal place before the next stage begins. In this study, the primary data of written scripts and raw audio recordings from the focus group discussions and interviews were transferred into a single place, before the transcription process. The transcription process involved converting raw data in audio form into a written transcript. This study utilised self-transcribing of data to ensure the researcher was well-versed and familiar with the data. Self-transcribing allows for greater understanding of the data (Castleberry and Nolen, 2018).

Then, the ready transcripts were then transferred into Atlas ti 8.0 for the next disassembling and reassembling stage. The disassembling process was conducted where the transcripts were read a few times and coded with a descriptive or inferential coding technique. Descriptive coding (Saldaña, 2010) was used to highlights findings such as

walking purpose, time, destination, facilities, challenges and provision that emerged from the data. These codes carry the meanings that were the focal point to describe the inclusion of older people in developing a walkable city phenomenon. “Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes are usually attached to ‘chunks’ or varying site – words, phrases, sentences or whole paragraphs” (Miles and Huberman, 1994, p.56). The coding process extended through a few times of reading the data from the transcription. Atlas ti. 8.0 assisted well in this process as it helps to highlight, list and stored all the codes systematically and effectively.

The third stage, which is the reassembling process, started when all the transcriptions were read and have been coded. A cluster of codes would emerge as a higher order code and grouped together as themes. The hundreds of codes were then categorised and finally emerged as new categories called themes. The ultimate aim of a theme is that the subjective meaning and the social reality of the phenomena are properly portrayed. Themes became the elements and concepts which can fulfill the research questions. They contain codes which uncover patterns and provide a comprehensive view of the data. Refer to 3.5.1.2 for related themes of older people data, and 3.5.3.2 for the professional data themes.

The next stage in data analysis was interpretation and drawing conclusions. In the interpreting stage, the process of back and forth on the data would occur more than twice. Atlas ti provides a data management tool which eases the process. Interpreting does not rely on the number of times a code appears in the data but it is influenced by the

importance of it. Finally based on the interpretation which also depends on the research questions that have been prepared, a conclusion was reached.

3.6.2 Secondary data

The secondary data consisted of policy documents of the redevelopment plans, strategies and visions of the Birmingham City Centre that related to development and provision of a walkable city centre environment. These data were scanned and transferred into another single place, before going through the similar process of thematic analysis of data (see 3.6.1)

3.7 Ethics considerations

This study had ethics clearance from the Univeristy of Birmingham research ethics committee, following the ethical guidelines of the British Sociological Association. Before the data collection started, it was ensured that all participants were voluntarily participants and that they completed the consent form. On the information sheets, participants had been informed that they were free to withdraw from the research at any point within three months (including transcripts and recordings of interviews). However, no participant withdrew from the study after they had agreed to participate.

Some forms of identification such as names, telephone numbers and addresses of the participants were collected during the recruitment and data collection so that participants could be contacted for interview arrangements. Certain characteristics such as age, gender, employment, income and 'community background' were also collected for research purposes. In protecting the identity of the older people who were participants, all personal data have been treated as confidential and stored in password protected files. Identities will not be revealed in any outputs. Pseudonyms or generic identifiers are used in the following chapters. For professional participants, as stated in the information sheet and consent form, they have agreed that their names will not be used in data reporting but their position will be indicated.

Before agreeing to participate, participants were given an introductory letter introducing the researcher, supervisors, and the university, explaining the purpose of the study and their role in it. Before the interview started, the researcher reminded the

participants that their confidentially would be maintained and the data would only be used for the purpose of the research.

In dealing with vulnerable groups of older people, this study gave some special attention to the following:

1) To read aloud and prepare the information sheets/materials in a larger font e.g. point 14, as some of the older people might have eyesight problems.
2) To conduct focus groups with a small group (maximum of six) where possible, to give extra attention to the older people to satisfy their needs and provide for their comfort.
3) To give participants sufficient time to think, talk or write the answer during focus group sessions.
4) To select interview place/venue that will consider the access, safety and comfort of the participants.

3.8 Limitations

There are three limitations of data collection in this study:

1) This study focused more on the Birmingham City Centre Vision for Movement policy (Birmingham City Council, 2010) which highlighted the strategies for a walkable city that includes the provision of design streets, a public realm and transport interchanges for the needs of older people and mobility impaired people. This study found that the Birmingham City Centre Vision for Movement is the most crucial policy documents that relates to the aims, scope and context of this study; planning and developing a walkable city.

2) There are limitations related to research participants. One aspect is related to the fact that participants were volunteers of 65 years old and able to walk. This study findings reported participants were relatively older adults between 65 to 94 years old, and most of the participants were either heavy or medium walkers. This study realizes that it is also possible by interviewing light-walkers or non-walkers, further themes such as substantive barriers would have emerged. However, this is countered by the perspective that existing experienced walkers could offer the best insights on the walking experience (Braun and Clarke, 2006). It is also true that the participants who were heavy or medium walkers in general were not necessarily heavy walkers in the city centre as they mainly walked in the local neighbourhood or other places, and this could be because of barriers experienced in walking in and into the city centre.

3) Lastly, there was a limitation in getting response from the professional participants which included volunteers from government and NGO officers. The rationale of getting the professional insight in this study was to understand how far the provision for older people is being included while planning and developing a walkable city. Thus, although it is well-known that recruiting professional participants is time-consuming, this study was able to conduct 11 interviews within the data collection stage time frame, between December 2016 to April 2017. Although this number is not large, the interviews were sufficient to understand more about the limitations in providing for older people in planning a walkable environment in the city centre of Birmingham and to get some insights on the mindset and vision of practitioners that lies behind the policy documents.

CHAPTER 4 STUDY CONTEXT

VISION FOR A WALKABLE CITY – A STUDY OF CITY CENTRE OF BIRMINGHAM, UNITED KINGDOM

4.1 Introduction

The previous chapter explained the methodologies used in this research in order to unpack the research aim, which is the extent to which the development of the city centre of Birmingham embodies a walkable environment and spatial justice for older people. The city centre of Birmingham has been introduced in the introduction and methodology chapters as the context of this study. However, this chapter will discuss further the context of the city centre in terms of its size, population, demography, history, transport network and relevant plans and strategies in encouraging walking in the city.

4.2 City size and population

Birmingham is the largest city in the United Kingdom after London and the largest district in the West Midlands region (refer to Figure 4.1 below). Birmingham is located near the geographic centre of England, approximately 110 miles (177 km) northwest of London, at the crossing points of the national railway and motorway systems. Birmingham is one of England's primary industrial and commercial areas, for which it acts as an administrative, recreational, and cultural centre. Birmingham's city covers 267 square kilometres, with a population of over 1 million. The entire metropolitan area covers 598 square kilometres with a population of 4,332,629 people. The overall population density comes to approximately 4,200 people per square kilometre. Thus, the strategic location and dense population of Birmingham are what make it exciting and relevant for this study.

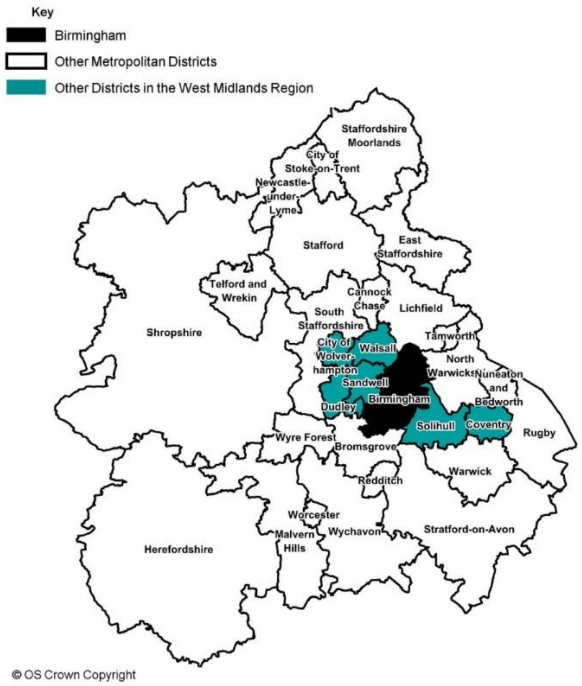


Figure 4.1 The key plan of Birmingham, United Kingdom

Source: Birmingham City Council (2012)

4.3 Demography

Birmingham experienced constant growth and was shortlisted as one of the most important industrial centres in Britain. The most significant period of growth was reported between the years of 1911 and 1921 when the percentage of people living in the city of Birmingham almost doubled. Within ten years, the population increased from 525,833 to 919,333, a growth rate of 74.9%. Since then, however, Birmingham's population has gone up and down. The 2011 census report (Office for National Statistics, 2012) marks the third time that the city's size has exceeded one million people.

The Office for National Statistics reported that lower birth rates and higher life expectancy had transformed the shape of the United Kingdom population. Whilst longevity is something to celebrate, the percentage of those at working age is shrinking, and the percentage at a pensionable age is increasing. In Birmingham, based on the statistics of the Office for National Statistics (2016), 1,141,400 people live in Birmingham based on the 2018 mid-year population estimates. This is an increase of 102,400 people (9.9%) since 2008 and 4,300 people (0.4%) since 2017. The year 2017 has the lowest year-on-year increase in population growth since the turn of the last century. Out of a population of 1,141,400, 22.8% (259,000) are children, 64.3% (731,500) are of working age and 13.0% (147,900) are pensioners. As the ageing population increases, there will be increased pressure and questions about the sustainability of providing social services such as education, healthcare and housing at the national level (United Nations Department of Economic and Social Affairs Population Division, 2017).

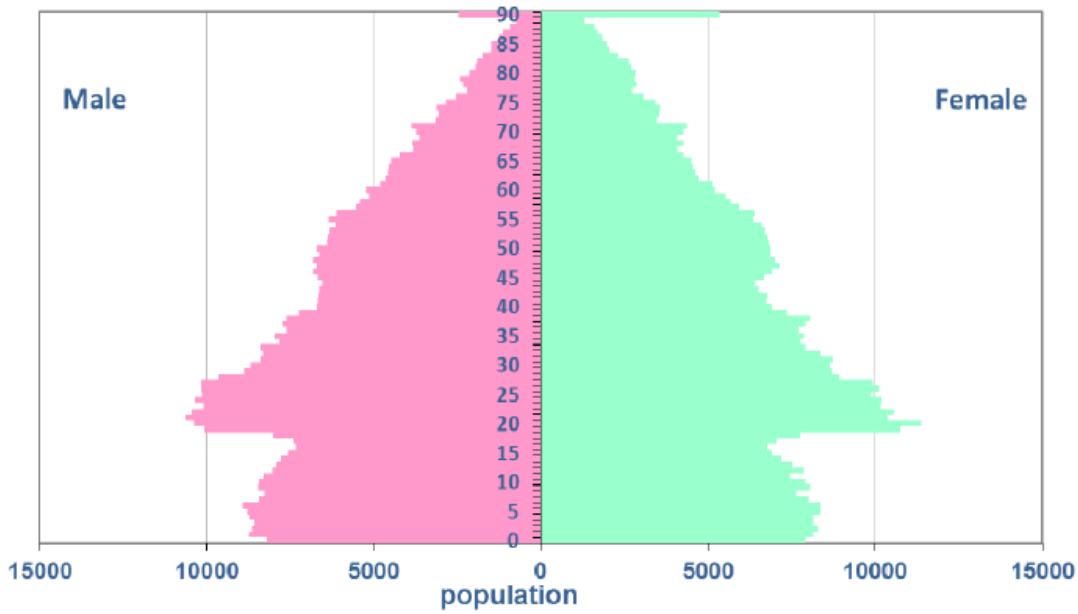


Figure 4.2 Birmingham's mid-2018 population estimates

Source: Office for National Statistics (2016)

Figure 4.2 above is an age pyramid of Birmingham's population based on a report from the Office for National Statistics in 2016. Each line in the pyramid represents a year of age in the population scale. The size and make-up of the population are determined by births, deaths and migration that have taken place in previous years. The figure above also shows that there are fewer people in the older age groups than in the younger, illustrating Birmingham's young age structure. Thus, the demographic data above support that older people are a minority group in Birmingham and under-explored. The graph also shows the difference in the number of males and females according to their age. Females are most marked in the oldest age groups, reflecting greater female longevity compared to males.

4.4 Ethnicity and religion

Birmingham is more ethnically diverse than London, the country's capital city. The 2011 census confirmed that 70.4% of the people of Birmingham were white, 19.5% were Asian, 6.1% were Black, 0.5 were Chinese, 2.5% were mixed race, and 0.6 were of another ethnic group (Birmingham City Council, 2013). At present, due to migration patterns and higher birth rates, the minority ethnic population of the United Kingdom are among the young people (Policy Research Institute on Ageing and Ethnicity, 2005). However, the number of ethnic minority elders is predicted to rise, especially in areas such as London and the West Midlands, where the migrants to the United Kingdom and ethnic minority populations lived most. This increment will undoubtedly have implications for health and social care services in the United Kingdom (Clough, 2010).

The Office for National Statistics (2005) reported that only 3.1% of the population aged over 50 years were of BME origin. More than half of these groups were of South Asian origin, including Indian, Pakistani, Bangladeshi and other national origins. The membership of faith communities varies among Christian, Muslim, Hindu and Buddhist, and a variety of language backgrounds. The rest of people over 50 years of age from BME groups are ‘black’, from the origin of African or Caribbean or mixed (mostly United Kingdom). However The number of blacks and minority ethnic (BME) in Birmingham, aged 65 years or over is predicted to grow from 21,000 in 2006 to 36,000 in 2026 (Simpson, 2007). At this stage, it is forecast that by 2030 BME residents will represent around one-quarter of the Birmingham city’s population aged 65 years or older.

4.5 Development of Birmingham City Centre

4.5.1 The core centre

The perception of cities is mostly affected by the quality of visual experience, often focused around the city centre. According to the Interconnect Birmingham report (Birmingham City Council, 2011a, p.38), the city centre of Birmingham is defined by the Middleway which is a ring of A road dual carriageways that include the A34, A45, A435 and A4540. The city core is defined by Queensway(see Figure 4.3 for the city core boundary).

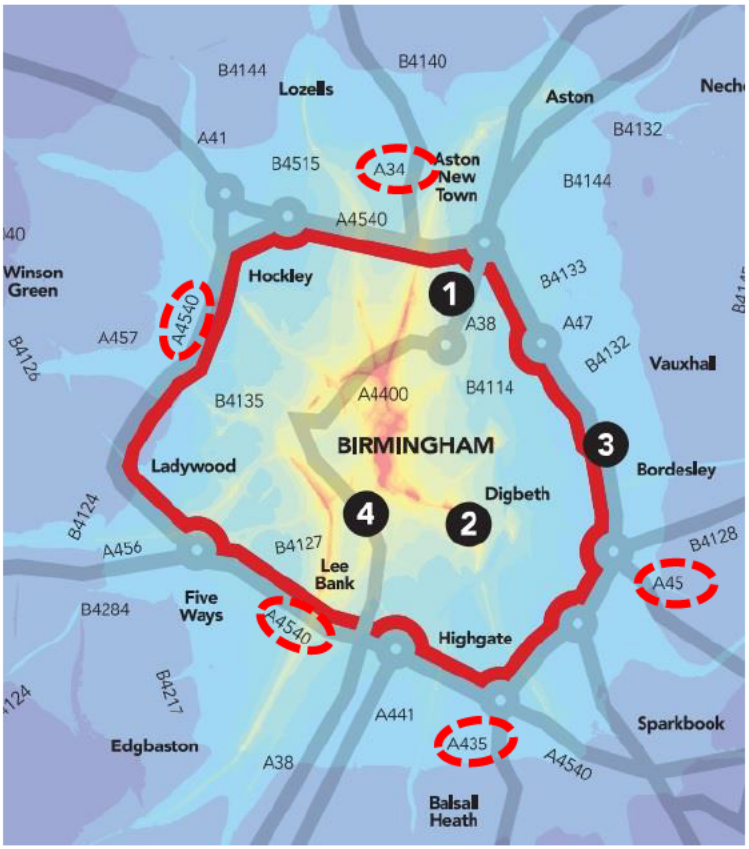


Figure 4.3 The boundary for the city centre of Birmingham

Source: https://www.centreforcities.org

The settlement of Birmingham first started during the industrial revolution in 1731 with a population of around 20,000 people. Birmingham has three primary natural resources that give advantages for the development of industry: 1) deposits of iron ore, 2) a coal seam and 3) several streams that could be used to run watermills. Starting with the metalwork industry in the 1800s, Birmingham produced metal-based products such as jewellery and guns. At the end of the 1800s, train carriages were being made, and in 1879 the Cadbury factory opened in Bourneville. The railway lines connecting Birmingham to Liverpool, Manchester and London had opened by 1838. In the 1830s, 160 miles of canals had been built, and back-to-back terraces were built to accommodate the growing population. Then, a sewerage system was installed in the 1850s and piped water services began in the 1860s. In 1880 the population was 40,000 and Birmingham was made a city in 1889. The suburbanisation is marked in 1950. Train lines are starting to extend out the links of the city encouraging suburban growth in areas like Harborne and Selly Oak.

The form and structure of the city centre reflect a legacy of industrial activity, Victorian entrepreneurship, post-war planning and transportation developments. During the 1960s and 1970s, the city centre of Birmingham became synonymous with contemporary architecture, highway engineering (also known as the Concrete Collar) and the segregation of pedestrians and traffic on a scale unparalleled in the United Kingdom, gaining international acclaim for transforming the city centre.

In late 1990s, the perception of Birmingham was too often negative and did not reflect the reality, aspirations or potential of the place (Birmingham City Council, 2011a). During that time, Birmingham was behind the trend when compared to other cities such

as Manchester, Liverpool and Coventry. In the 1960s, Birmingham grew gradually from the Bullring, the location of the cattle market with main streets forming Digbeth, Dale End and New Street to the Colmore area. The main streets remained primary routes within a network that grew in all directions as the city developed as a hub for industry and manufacturing with new quarters emerging.

The city centre embodied the history, achievements and future ambitions of Birmingham. However, the city centre was criticised for becoming homogenised with multinational high street shops and standardised environments, which lead to many social and cultural implications (Birmingham City Council, 2011a). A strategy of transformation has seen Birmingham begin to reinvent itself as a world-class city centre, heralding a multi-billion pound investment programme in new cultural, transport, commercial and retail developments.



Figure 4.4 (left) The Old Bullring Centre and the Rotunda

Figure 4.5 (right) The Old Fruit and Veg Market and the Pavilion Shopping Centre (beside the Bullring Centre)

Source: Google (2019)

Birmingham is Britain's second city and has a long history as a leading centre for trade and business through the Bullring Centre area. The site of the Bullring is located in the heart of Birmingham's city centre. The Bullring site started as the city's market place. In the 1960s, the market place became famous as one of the examples of the largest enclosed shopping centre developments in urban planning. In the 1980s, the Bullring had a significant decline when the economy shifted to the out-of-town retail and business park centres. In the 1990s, the Bullring and several parts of the city centre were redeveloped to encourage investment, business, jobs and shoppers back to the city centre. The redevelopment includes:

1. Demolition of the old Bullring finished in 2001, and the construction of the new Bullring Centre (see Figure 4.6 and 4.7 below).



Figure 4.6 (left) Demolition of the old Bullring finished in 2001

Figure 4.7 (right) The new Bullring Centre and revamped Pavilion Centre

Source: Google (2019)

2. Restoration of the old Moor Street Station that linked Birmingham City Centre to London Marylebone in its original 1930s style (see Figure 4.8).



Figure 4.8 The main entrance of Moor Street Station

Source: Google (2019)

3. Transformation of a Royal Mail sorting office to the Mailbox building that has exclusive and luxurious attractions.

4. The International Convention Centre (ICC) was built as a premier and prestigious venue for international exhibitions, meetings, conferences and shows (see Figure 4.9 below).



Figure 4.9 The The International Convention Centre (ICC)

Source: Google (2019)

5. Redevelopment of Brindley Place, the canal side with the provision of trendy bars, cafes and restaurants along the river (refer to Figure 4.10 below).



Figure 4.10 The Brindley Place area

Source: Google (2019)

6. The opening of the National Indoor Arena (NIA), which is a multi-purpose arena for a wide range of indoor international sport, concert entertainment and business events (see Figure 4.11 below).



Figure 4.11 The National Indoor Arena (NIA)

Source: Google (2019)

7. Development of new luxury apartments and penthouses aimed at the young professional population to encourage them to live in the city. The strategies are to bring money to the businesses in the city centre, and to create opportunities for new business and jobs in the city centre.

4.5.2 Transportation network

Birmingham is an essential hub for business and travel because of its strategic location at the centre of the national motorway network (M5, M6, M40 and M42) and at the heart of the rail network in the United Kingdom. Birmingham is connected to the South West (Longbridge) through the M5, to the North West (Sutton Coldfield) through the M6 and to the South East (Oxford and London) through the M40 and to the North West (Wales) through the M42 (refer to Figure 4.12 below).

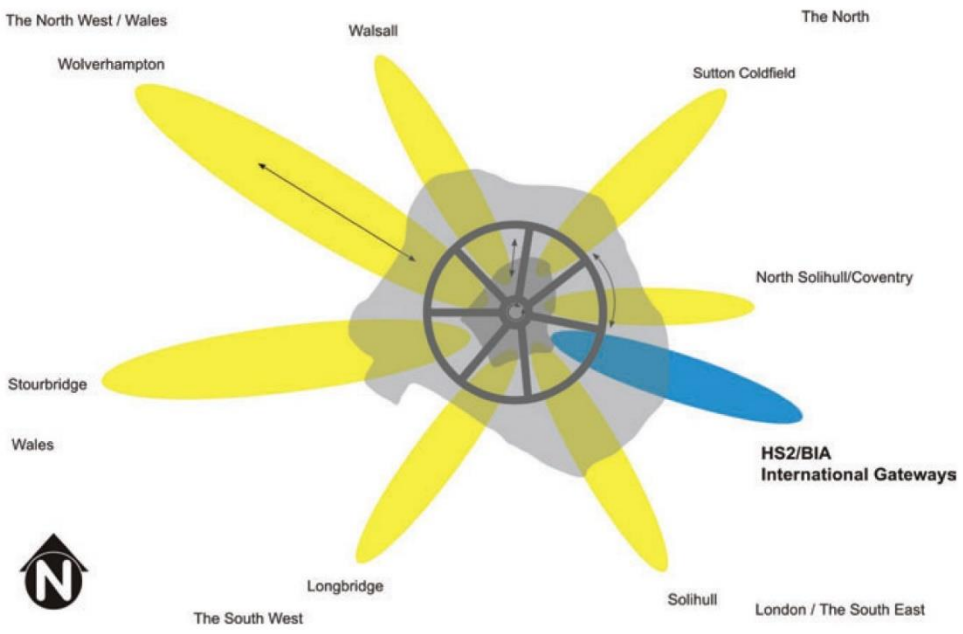


Figure 4.12 Central Birmingham connectivity

Source: (Birmingham City Council, 2010)

The Birmingham Mobility Action Plan stated that an effective transport system is essential for the inclusive sustainable growth of a city (Birmingham City Council, 2014a). Birmingham needs to design a transport system which works for people rather than cars. Many efforts have been made or are still going on in order to make the vision realised: 1) the new vision for an integrated mass transport system with zero emissions at the point of use, 2) targets for less than 50% car use, 3) a package of measures to help realise the full potential of the city centre, and 4) measures to promote healthier lifestyles by walking and cycling when appropriate.

The transportation system in Birmingham has been funded by a variety of measures: 1) Local Growth Funds, 2) ‘City Deal’ type arrangements with the government with long-term block allocations for transport and powers to retain revenue streams locally, 3) incremental financing or ‘Earn Back’ type arrangements, 4) contributions from local businesses, 5) shared priority/hybrid funding arrangements and public/private sector partnership arrangements and 5) European Investment Bank funding.

To support older people, the Older Person's Free Travel Pass has been introduced to support ageing in the United Kingdom. In Birmingham, as a person reaches the stage of pension age when living in the West Midlands, they are eligible for the West Midlands Older Person’s Free Travel Pass (West Midlands Network, 2019). This free travel pass gives opportunities to older people allowing them free travel by bus anywhere in England during 'off-peak' times. Residents of the West Midlands are also entitled to get free local train tickets in standard class within the restricted zone.

4.6 How walkable is Birmingham City Centre, UK?



Figure 4.13 How walkable is the city of Birmingham, United Kingdom

Source: Retrieved September 14, 2022, from https://www.livingstreets.org.uk/get-involved/the-uks-top-walking-cities/how-walkable-is-birmingham

Referring to the Figure 4.13 above, based on the general survey conducted by Living Streets in 2017, Birmingham City has been rated 49% for feel safe walking, 60% for easy walk to the shops, 47% for easy walk to parks, 61% for good pavements and 68% for good quality of streets. Living Streets is one of the NGOs representative group that consist

of professionals and volunteers. Living Streets's mission is "to achieve a better walking environment and inspire people to walk more". Living Streets support older people walking events, but the information regarding older people's walking pattern or behaviour are still limited for public release.

4.7 Older people and walking environment in Birmingham City Centre

This study found that there are still limited information regarding provision for older people in the walking environment at the Birmingham City Centre. As mentioned in section 4.3, Birmingham is a young city, where there are fewer people in the older age groups than in the younger. There is also limited information on the visit rate among older people to the Birmingham City Centre, where the provision of a walkable city was planned and developed.

Thus, the city centre of Birmingham provides an interesting case study of the inclusion or exclusion of walking activities among older people in a city centre area. However, based on the initial data callected, this study argued that there are less older people walking in the Birmingham City Centre for two reasons. First, older people are the smallest population group in Birmingham as compared to children and adults. Second, rapid development in Birmingham nowadays (development as mentioned in the Big City Plan) may overlook older people's walking needs, especially in the city centre.

CHAPTER 5 EXPECTATIONS OF A WALKABLE CITY FROM THE PERSPECTIVE OF OLDER PEOPLE

5.1 Introduction

Chapter 5 is the first empirical chapter of this explorative study on the extent to which the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people. Chapter 5 will address the first research question regarding older people's perceptions and expectations of a walkable city. Then, based on the findings, this study will extend the discussion in understanding older people's competency in walking and its relations towards the attributes of planning and developing a walkable city. This study also suggests that understanding older people' perceptions of walking will shed light to unpack their expectations towards a walkable city concept.

5.2 Being an older pedestrian

Prior to discussing older pedestrians, it would be beneficial to understand how older people describe or define an older person. According to the World Health Organisation standard definition, older people are people from the age of 60 (WHO 2002), who will be in varying states of health, participation in society and independence levels. Thus, this study sample has been designed following the WHO definition. However, interestingly, this study found that some participants from the 60s to 70s age groups prefer not to be considered as older people:

> Well, I don't consider myself as an older people, I just feel myself to be a people (IIOC17, Male, 68).

Similarly, it was noted that older people in the 60s and 70s age groups were more active and independent in their daily life, compared to those in the 80s and 90s age groups:

> Old people, 60s, and 70s, they are still active (IIOC45, Male, 72).

Despite the arguments on the categories of age to define older people, this study found that many participants acknowledge their vulnerabilities or changing individual competency in walking and wish to receive consideration and recognition especially in an urban walking environment. Thus, older people require acknowledgement of their right to walk, including in the city centre, just like any other age group:

> I appreciate the status that I get; with the status (older people), I just manoeuvre myself around the city that affects me more than anybody else (IIOC17, Male, 68).

In order to understand older people's competencies in walking, this study accepts that older people' expectations and experiences in walking also vary according to their competence in health, status, participation and independence level. Established literatures which shows an interest in the relationship between older people and walking include studies from the fields of health (Van Dyck et al., 2011), ageing and well-being (Menz et al., 2003), environmental gerontology (Sugiyama and Thompson, 2007) and transportation (OECD, 2001; Litman, 2003). However, little attention is given by the urban planning field to older people's walkability.

In this study, some participants claimed to spend more time on walking in a week or month as compared to during their younger life, which means that they are currently practising walking more compared to in their younger age:

> I probably walk more than I did 20 years ago. When working, I'm busy travelling around the country a lot. I used to drive a lot (IIOC17, Male, 68).

> While I was working, I did not have time to walk around. It is only since I retired. I have the time to walk (IIOC41, Female, 91).

> I do more walking now than I do when I was younger (IIOC13, Male, 70).

Therefore, this study found that retirement and health purposes are leading reasons that can lead to greater time spent on walking for older people. This provides support to arguments for the provision for older people's walking needs and encouragement in city life, including in the city centre, where walking might lead to participation in the social and economic life of the city.

Walking purpose is a strong factor that will influence older people' destinations and time spent in walking. However, this relationship could be influenced by mediating variables such as walking partner (dogs, family, and friend) and weather. Owning a car, or not, was also an important influence on walking time:

> I walk quite a lot because I do not have a car (IIOC43, Female, 74).

Walking offers full control over the walking journey. Participants mentioned that walking allows themselves to decide on when to start and stop the walking journey. Having more control in making decisions shows a certain level of independence in older people' perceived walking environment:

> Walking means you have more control over your ways of because you can stop when you want and start when you want. You do not have to worry about parking or storing a vehicle, and you even have control over time because you do not have to worry about train schedules or traffic jams. So, the one thing that happens with walking is everything

takes longer, but you can predict the time, barring becoming ill or weak. It is almost the same as the bicycle because you do not get worried about traffic and so on (IIOC35, Male, 75).

5.3 Reasons for walking

The reasons for walking for older people have been discussed widely in health studies (Abbott et al., 2004; Van Dyck et al., 2009; Donoghue et al., 2016). What older people expect to get from walking shows the importance of walking. This study found that the leading themes in older people' expectations from walking includes 1) sense of well-being, 2) social participation and 3) sense of place.

5.3.1 Health and physical well being

Firstly, it is well established that walking offers health benefits (Van Dyck et al., 2009; Hancock, 2012). Older people in this study also knew walking as one of the best basic forms of exercise and physical activity:

> Walking is the most important thing that you can do. It's easy to do as well (IIOC10, Female, 72).

> Walking and swimming are the two best exercises that you can do (FG04).

Participants referred to walking as a form of mobility, moving from one space to another space. For older people, being able to walk or be mobile, to move to another place or space increases personal wellbeing (Newton et al., 2010):

> It is exercise. It is important to keep moving; I think moving rather than walking is the expression I rather use (IIOC40, Female, 71).

> My perception of walking is that there is no other exercise I enjoy doing, so it's my one form of exercise. And I do enjoy it. I have always enjoyed it. I have got freedom. (IIOC28, Female, 71).

The majority of participants also stated that walking is important specifically in improving and shaping older people' health – physically, emotionally, and mentally:

> Walking is a very gentle exercise especially for our age. We [referring to himself and his wife] can't do something too severe, so walking is very subtle, very gentle (IIOC16, Male, 74).

> I think it's important; it helps with potential obesity; it helps with potential arthritis; it helps with general health, improves cardiovascular health, and probably reduces the risk of diabetes. But I am inclined [to walk] as I am little bit overweight, so I do walking for exercise. (IIOC29, Male, 75).

> Walking is very important because I think if you keep the body fit, you keep the mind fit (IIOC12, Male, 66).

> Walking is part of exercise, and I feel better when I'm walking (FG03).

However, participants were also aware of risks of falling occurring among older people when walking (see in Menz et al., 2003). It was noticed that older people walk slower compared to other age groups:

> I think it is really important to build a sure walking strength because as I am aware, you do walk more slowly as you get older. And things like my balance can be a bit unsteady sometimes going through one plane to another, so walking helps me to balance (IIOC22, Female, 71).

Although slower walking speed has been found to be a good strategy that helps older people with balance issues (Henrik Ekström et al., 2011), it is not an assurance against falling. Participants believed that walking needs practice to maintain mobility and that once you stop walking, it is not easy to start again.

> Walking improves walking (FG01).

> Walking is very important to me because I think once you stop walking, you never start again (IIOC11, Female, 75).

> It is like going up the stairs, once they stopped climbing stairs then one thing you know they cannot climb stairs anymore. If you do not walk, they will find it more difficult to walk. They need to keep walking (IIOC34, Female, 76).

One of the oldest participants carried on with walking although she had difficulties because she felt that it was essential to her physical and mental health:

> Walking is very important to my health. Last week I found that this test becomes more of a burden, but I try to keep on with walking because I feel if I stop then life will become very empty. I enjoy going out for a walk and also it does help my general health (IIOC24, Female, 93).

Thus, it is important to encourage older people to walk and to understand how the built environment can support them to walk. Participants also mentioned the role of education where people should be educated with the principles of healthy living from a young age. And the mentality of walking for health should start since young, rather than starting late at old age:

> I did not realize when I was young it was important to keep active and for the need to keep healthy when I was younger. And it is all about education. And getting people to eat the right food. And looking after themselves (IIOC12, Male, 66).

5.3.2 Social participation

Previous studies have shown that social participation is important for healthy ageing living. Social interaction is one of the most important elements in social participation among older people (Julien et al., 2013; Dahan-Oliel et al., 2008). Walking helps in terms

of making people able to meet with others, talk and communicate, and this aspect is especially important for the ones who live alone:

> I just like the fact that when you're walking, you'll pass people; you can speak and say hello even when they don't speak to you (laughs). But usually, people do smile and say hello or say good morning. Or even when you don't have a conversation with them, you feel that, uh, engagement with the people, which I think is important particularly as I live alone (IIOC22, Female, 71, living alone).

> Because of lots of things happening with the older generation now, walking is good not just for physical but mental [health]; it's a thing like that. So, when you go to town, and you talk to somebody you know, that might make a big difference for that person during that day or that week (IIOC14, Female, 67, living alone).

This is also related to the literature on the importance of ‘getting out from home' in preventing loneliness and isolation among older people. It was found that behaviour such as ‘does not want to get out’ or ‘not able to go out’ leads to a high risk of loneliness and isolation among older people:

> Walking is very important especially when you are older. It is very important that you get out every day no matter what your condition (IIOC02, Female, 82).

> Walking is very important. I find it is a really good way of relaxing. And if I don't manage to get outside and walk, I feel... well I miss it. Yeah. I like to be out walking, every day (IIOC27, Female, 70).

> Walking keeps me fit, gets me out. I just enjoy being outside. Doing something (IIOC23, Female, 74).

> The benefits of walking – the ability to meet people face to face, say hello. It's for social interaction (IIOC19, Male, 82, living alone).

When comparing walking with driving, some participants highlighted the differences regarding the contact with people they are with. The intimacy created from eye contact and engagement while walking and talking is much greater, compared to driving where the concentration has to be on the road and the driving:

> In a car, you are in a cocoon. A very useful vehicle, but it cuts you off from your fellow humans, except your family maybe, and now even with your family because you must concentrate on your driving, you can't talk to your family. Whereas if my family is with me walking, we can talk to each other… (IIOC35, Male, 75).

5.3.3 Sense of place

Lastly, walking makes older people more aware of their surroundings with all their senses. Besides being alert to more things in walking rather than driving, walking keeps older people in touch with their surroundings (Mehta, 2008).

Walking gives you all-round vision, all-round hearing, and smell, so all the senses and touching as well. So, you touch the ground with your feet, and you can touch objects with your hands. You can lean against things, sit down on things, so you touch with different parts of your body… you are in touch with things. You feel textures, hardness, softness, strength, in a way that the car, and the bus as well [provide], but they cut you off from the world. (IIOC35, Male, 75).

I have to go on the bus, and as I am walking, I know more, lots of places (FG02).

I have always really enjoyed that. I find walking gives me a sense of – this is going to sound weird – it gives me a sense of the seasons and the natural rhythm of the world, does that make sense? Because when I sat in an office all day, I go in in the morning and it might be light it might be dark. And when I got home it was nearly always quite late, and it was often dark so for months of the year, I did not really see outside. And when I am walking, just little things, you notice the changes in seasons all the time. So today when I walked here, I noticed snowdrops and some daffodils (IIOC22, Female, 71).

5.4 Walking into the city centre

Some of the older people highlighted the need to get involved in the development and activities happening around the city centre. This study found that the city centre is important for older people for a utilitarian visit. In Birmingham City Centre, art and cultural events are the main attractions for the older generation:

> A lot of older people are lonely. And if they go to concerts and events in the city centre they need it. I think it's important. I wouldn't shut myself up and not keep in touch with the good things (IIOC41, Female, 91).

Participants also claim that being connected or engaged with the city centre is important for their social interaction (mixing with a different group of people, getting out from the house):

> R: Do you think it is important for the older to get connected or engaged with activities happened at the city centre?
>
> I: Yes. Absolutely yes. I think it is very important for everyone to be involved actually, not just older people. I don't want, I don't actually like just mixing with older people. I like to mix with more [age groups]. I like to mix with young people (IIOC43, Female, 74).

> Yes, it is. I think because when you are old, you need to get in touch as much as you can to keep your brain functioning (IIOC41, Female, 91).

Getting out from home is crucial for older people to avoid loneliness and depression (Goll et al., 2015; Vallée et al., 2011). A good street design and walking built environment can attract older people to get out from home. This is crucial for older people's social interaction and social participation in city life:

> R: How important it is to make the older people more attached and engaged in the city centre?
>
> I: Well I think it is very important to make the older people more attached and engaged in the city centre because it is very important to get us out (IIOC23, Female, 74).

> It is very important because otherwise we are stuck at home. Because once I am stuck at home, I hardly go out (IIOC14, Female, 67).

Access to the city is also highlighted as necessary by participants in order to get older people to walk and visit the city centre. According to Klass (2010), there are older people who decided not to move away from a city centre because of the facilities and services provided in an urban area. Therefore, it is important for planners and stakeholders to accommodate and consider older people in planning and developing the city centre:

> I think it's important for older people to reach the city centre and get there (IIOC09, Female, 72).

> I don’t think people should be excluded from the city. Many people are excluded because the bus routes aren't near their homes, or they just don't want to go to the city because they could find things in their little city, like Harborne has had good libraries, good doctors, and plenty of shops. Many people go to the city centre, especially young people, they walk around and do social activities there. Older people, probably don’t go so much, unless they’re working (IIOC29, Male, 75).

This study suggests that public transportation is the best medium to support older people’s getting to the city centre. However, some of the participants found that there is no need to stay connected with the city centre:

> I can enjoy my life without going into the city (IIOC25, Female, 82).

> I think it's difficult to say really as you move from one age to another age. You know, when you are young, you want to be in the middle of everything. But the time you get to my age, in the sense you've been there and done a lot of it, and it isn't necessary anymore. It's not important because the thing that is important is our age. I can say, I don't want to go to town, I bet there are folks who would say that this is not necessarily feeling excluded. They’ve got a choice to do what they want, and what they don't want to do they chose not to (IIOC39, Female, 81).

Thus, this study suggests that there is a need to provide options and opportunities for older people to get connected and access the city centre. Provision of an inclusive walkable city can enhance social participation among older people in city life. Public transportation and promoting social activities in the city centre can improve older people' perception and preference towards the city centre.

5.5 Expectations of a walkable city for older people

Regarding questions on their awareness of a walkable city project or concept in Birmingham City Centre, the majority of respondents commented as such:

> I have not seen the term of a walkable city before I saw the details of your project (IIOC44, Male, 72).

The concept of the walkable city developed aims for sustainable urban development. Southworth (2005) asserts that walkability is the foundation for a sustainable city, offering environmental, psychological, social and health benefits. However, experiences of walking in a city are not all the same depending on the place and the people (Forsyth, 2015). Therefore, it is crucial for urban planners to understand the meaning and expectation of a walkable city from the perspective of older people because it varies from other age groups in what is being expected and will have different implications for designs.

In this study, findings show that the five leading expectations of a walkable city among older participants are; 1) prioritised travel on foot, 2) a supportive walking environment, 3) reasons to walk, 4) greenery and views, and 5) integration of public transport. These will be discussed further in the following sections.

5.5.1 Prioritised travel on foot

Older people in this study perceived a walkable city concept as a ‘pedestrianisation' project, or at least one which recognises walking as a basic and essential mode of transport that needs to be supported.

> I understand it as pedestrianisation, yes (IIOC44, Male, 72).

> A walkable city is a city that you can walk around (IIOC10, Female, 72).

> A walkable city? I imagine it is a city which is friendly to people who want to walk, travel on foot (IIOC04, Female, 71).

> It [referring to a walkable city] has got to offer safety so the walker must be separated from vehicles and bicycles as well because bicycles could be quite difficult to negotiate (IIOC17, Male, 68).

The first image of a walkable city from the perspective of older participants is one that is pedestrian friendly for everyone. A walkable city is on a different planning scale to a pedestrianised area (Iranmanesh, 2008). Thus, this study argues that the walkable city concept is not fully captured by a definition of travel by foot. A walkable city concept encompasses the elements of aesthetic qualities, connectivity and accessibility, safety, and public transport infrastructure within the area.

> Supportive environment for older people I like the pedestrianisation of the city, but it has more to do with the environment. I supposed it makes it easy to walk as well… (IIOC14, Female, 67).

A built environment that supports and encourages walking includes perceived and objective measures of the walking environment (Troped et al., 2017; McGinn et al., 2007; Maruí W. Corseuil Giehl et al., 2016; Southworth, 2005; Tiwari, 2015). Older people in this study also collectively identified a list of expectations on the objective and perceived built environment factors that can support and encourage people to walk.

The perceived built environment includes participants' expectations towards the provision of street furniture such as benches and pathways. Benches or seating are crucial for older pedestrians as they need rest while walking more than other groups of people. Some participants also highlighted the role of benches in social interaction activities. The provision of benches can encourage conversations and interactions among the people.

> It is nice when they put the bench there for people, and it is good for the community to sit and have a little talk together as well as anybody on their own (IIOC05, Female, 82).

However, provision of street furnitures require a good maintenance plan in order to secure its functionality. Participants placed importance on the maintenance of pathways, benches and public services in a walking environment:

> Good maintenance of the pavements and somewhere to sit down occasionally (IIOC05, Female, 82).

5.5.2 Interest / reasons to walk / services

Taking the dog for a walk was one of the leading walkings purpose among older people in this study. Previous literature shows that pet ownership can affect human health. It is believed that individuals who walk their dogs are more physically active than individuals who do not own dogs (see Sehatzadeh et al., 2011). As for example, in this study, a female participant in her 80s, states that the first thing she will do in the morning is to walk with the dog. She mentioned that it is important to keep walking nearly 30 minutes every day, not only for her health but for her dog to exercise and to meet people (IIOC25, Female, 82).

> I missed having a dog and walking - it is a great excuse (IIOC43, Female, 74)

> The best thing to do is get a dog; go for a walk (FG04)

5.5.3 Greenery and views

Some of the participants preferred to walk in the countryside to enjoy the greenery, views and fresh air offered by nature:

> I love walking in the countryside. Not so much in the city. There is just something about seeing greenery and not seeing buildings all the time. In the city, we have got pollution problems like diesel cars. I like the

> view to be changing [referring to the season changes]. And we can stop and look at the flowers or butterflies (IIOC31, Female, 73)

However, others stressed that it was important to bring elements of greenery an nature into urban areas as well. This was for reasons of aesthetics, interest, and also safety provided by more open views.

> Provision of some plant life, trees or plants or flowers. And perhaps some water features and fairly open [space], not too enclosed. So, you can see where people are coming from. You do not feel frightened; you can see around you (IIOC07, Female, 65).

> A walkable city must have visible, open space, and then have a softscape like green elements (IIOC07, Female, 65).

5.5.4 Integration of public transport

The participants' expectation of a walkable city concept in this study shows that integration of walkability and public transportation is a necessity for all users, including older people. This is supported by the findings of Bhattacharyya & Mitra (2013); their study suggested combining walking and public transportation in transforming Siliguri City into a walkable city. Birmimngham participants expressed the importance of public transportation in supporting a walkable city.

> Well, I think it is the combination of two; walking in the pedestrian area and public transport so that whatever disability you have, you can always walk. So it is pedestrianised, and public transport (IIOC14, Female, 67).

> It would have plenty of public transport so that you can get to where you want to walk (IIOC04, Female, 71).

Moreover, for some older people, public transportation is considered as one of the factors that can influence their decision to walk:

> In walking; I am more likely to think if there any easy public transport that I can take that goes there. If there is no public transport that goes there, I do not go (IIOC14, Female, 67).

> It has to have a good public transport to get to places. (IIOC24, Female, 93).

Therefore, this study suggests that understanding the relationship between the role of public transportation and walkability is crucial in creating an environment that makes it easy to walk for all users, including older people. This is also recognised by Southworth (2005) as his study mentioned that the design and functionality of the path network are the built environments factors for a walkable city. The next section will further discuss how a walkable city can encourage people to walk through features of its built environment.

5.6 Good practice examples

In this study, participants highlighted various examples of cities (state, regional and city scale) that related to their expectation of a walkable city. The examples are based on their experience The examples have been categorized into two; 1) Europe / worldwide, and 2) United Kingdom.

5.6.1 Europe / Worldwide

Participants highlighted examples of good practice from the places that they have been to before. Those in European countries includes Amsterdam, Paris, Scandinavian cities, Barcelona and Venice. Amsterdam and Paris were referred to as examples of good practice of a walkable city because of the terrain conditions – *flat areas*. Scandinavian cities and Barcelona have been mentioned because of the *liveable streets* – social events and activities happening along the walking streets. Further details are provided in Table 5.1 below.

Figure 5.1 Examples and criteria of walkable cities from the perspective of participants

EUROPEAN COUNTRIES	
Flat area	I hope so, to be flat. Somewhere like **Amsterdam** and **Paris**. I think that they are a walkable city (IIOC18, Female, 71).
Green spaces	I would say about the, we talked about what makes trees, is parks and trees and green things, so **Venice** has little gardens, which you

	suddenly come across and trees in unexpected places. And, even though it's got very little space, where there is space they have an avenue full of the most beautiful trees, and so there is, and Birmingham has many, many trees (IIOC35, Male, 75).
Liveable and Social Streets	You know the Ramblas in **Barcelona**, well every Spanish city has a Ramblas. It is from Ramble as in ramble. It is where the men and women put on their best clothes and families as well, and then they walk up and down, and the women show off how beautiful they are, and the men show off how handsome they are, and people stop and have coffee and drinks and so on… and the whole street, no cars, no motorbikes, no smell of petrol. Just the smell of coffee and food and things that are cooking, nice things and, the pleasure of looking at people passing, and meeting and having conversations, and talking with your friends (IIOC35, Male, 75). I think one of the other things about a walkable city is being able to eat and drink outside on the street when the weather is good. Or even as you see in **Scandinavian countries**, they have ways of heating outside, or they have glass, so you can still be outside, but you are inside, so you don't get too cold. So, there's something about when a place is walkable people just walk up and down (IIOC35, Male, 75).

Accessibility	I know there's a concern about walkability and I've been interested in the subject of walkability and cyclability for 20 years. It fascinates me how cities are made more civilised, so you know, you go to somewhere like **Amsterdam** or **Stockholm** or other **Scandinavian cities** or **German** cities, and they're way ahead of us regarding making the cities more accessible. Even **Paris** is better as well. Obviously, **Venice** I said. In Venice, there's not even allowed bicycles, just walking. And, they had a problem there because it meant that people couldn't use wheelchairs, so now they have made allowances for older people who are disabled, but it's a walking city (IIOC35, Male, 75).

Source: Researcher (2019)

5.6.2 United Kingdom

Participants also highlighted some cities in the United Kingdom (regional scale) such as London, Stratford-upon-Avon, Bristol, Edinburgh and Dudley as examples of good practice of walkable cities. London was mentioned as a good example due to *improvements in traffic and crossing control for pedestrians*. Stratford-upon-Avon was recognised as a good walkable city because of the *historical attractions*. London, Bristol, Edinburgh, and Dudley were mentioned as good examples of walkable cities because of possessing *attractive green spaces* (parks, trees) which enhance pedestrian comfort while walking (see Table 5.2).

Figure 5.2 Good examples of walkable cities from the perspectives of older people

THE UNITED KINGDOM	
Less traffic/safe crossing	That it would be easy to cross roads. It wouldn't be full of traffic views and noisy traffic. So that it would be more restful for walking around. Which is hard to imagine with the city. Thinking of **London** now, there's payment for traffic coming to London [referring to congestion charge], so London is quite quiet now. Quite little traffic. So, I find it much more pleasant. (IIOC27, Female, 70).
Historical attractions	I thought who can teach me anything that I can't teach myself. But she was in love with Shakespeare, she knew Shakespeare, and she brought everything to life, so I think a good tour guide can be very good. (IIOC35, Male, 75).
Green spaces	One place I've lived in, back when I was a student in **Bristol**, that's got a very nice environment, and it has smaller green spaces within the broad city centre, and **Edinburgh** is a place I'd like to live. ...has quiet breathing spaces within the centre. Lots of shops. (IIOC 44).
Not crowded	I would say **Dudley** is better as a walkable city then.... because it's less crowded. Simple as that (IIOC45, Male, 72).

Source: Researcher (2019)

Birmingham City Centre was mentioned for having some features which are positive in terms of walkability including less traffic, good signposting, existence of historical buildings, flowers and plants, well-lit path and advertisement/information provision (see Table 5.3).

Figure 5.3 The potentials of Birmingham City Centre for a walkable city

THE BIRMINGHAM CITY CENTRE	
Less traffic	Birmingham in the 1980s was very dominated by automated vehicle, cars but it's less so now (IIOC04, Female, 71).
Signposting	I think Birmingham is quite walker-friendly. I find it a good city to walk through. I suppose signposting helps if you're not sure of where you're going. And it's quite well signposted too. Cause I do occasionally meet people, who stopped me and asked me the way to places. And it is well signposted if you look carefully. So it's not too bad. And the canal, the towpath, all really well signposted. Because they tell you where, how far you are away from the next kind of point where you can go up to the road or um, it gives you some idea of how far away you are (IIOC22, Female, 71).
Public transportation	Birmingham is the best of any place I've ever lived. There are lots of buses; they have a good frequency, stops are not too far apart. You've got a tram service which is used for a longer distance journey, and you've got a good service of trains in especially here (IIOC 44).

Historical buildings	I tell you one thing that happened the other day. It's fascinating. I go for this little recital, I like to support those who play nice piano music, and there is a little group. I was making my way to the end of Broad Street by the theatre and came down underneath. I don't like that very much. Came through that and round by the Town Hall; I was asked to go past the Art Gallery and then into Margaret Street. There are still lots of old buildings to see, arts. Anyway, I find a fellow standing looking at very small details on the walls of the Town Hall. So I asked him if he found a good fossil. Well, I was only joking. And he showed me fossils in the stones of the actual Town Hall. Through weathering, they have become visible, and he and his friend were possibly walking around the city, looking where the fossils were. That for me was fascinating. And he said to look up there at the council house, the stone there is very different from the rest of it. You know, I hardly ever look up. Because you were so busy walking and looking forward (IIOC39, Female, 81).
Well-lit and interesting walking paths	I: There was a very lovely flower thing decorated with flowers and plants. So you could follow the trail, which we did. And there's another one which we thought is really good, was lighting the Birmingham area where people normally do not walk. And it was lit deliberately; now that must be the council thing. R: The underpasses you mean?

	I: Yes. Places you never think of going. But it picked up important information on Birmingham and so on. And that was excellent. That attracts certain groups of people, whether it would encourage folks in general (IIOC39, Female, 81).

Source: Researcher (2019)

In brief, this study demonstrates the perspective of older people' expectations of a walkable city which appears to have a relationship with a basic mobility mode, public transportation and a supportive built environment to walk. The best practice examples of a walkable city that they highlighted also relate to these expectations and included cities with interesting streets, greenspace, and which felt safe for pedestians.

5.7 Discussion

This chapter has highlighted findings on being an older pedestrian, reasons for walking, walking in the city centre, expectations of a walkable city and good practice of a walkable city from the perspective of older people. On being an older pedestrian, this study gained some insight that the older pedestrians from the age group of 60s and 70s can be considered more active and independent walkers compared to those in their 80s and 90s, although there was diversity in both groups.

The three main reasons for older pedestrians to walk include 1) health and well-being benefits, 2) social participation purposes and 3) sense of place. The most often mentioned of these was the health and well-being purposes. Most of the participants were aware of the benefits of walking in terms of ensuring the physical and mental health for older people specifically. Their perspectives echoed the findings of studies in ageing and wellbeing that have argued that walking could encourage social participation among older people through offering physical activity and social interaction (Dahan-Oliel et al., 2008; Donoghue et al., 2016).

For instance, Figure 5.4 below illustrates how a participant who lived alone perceived walking in her life.

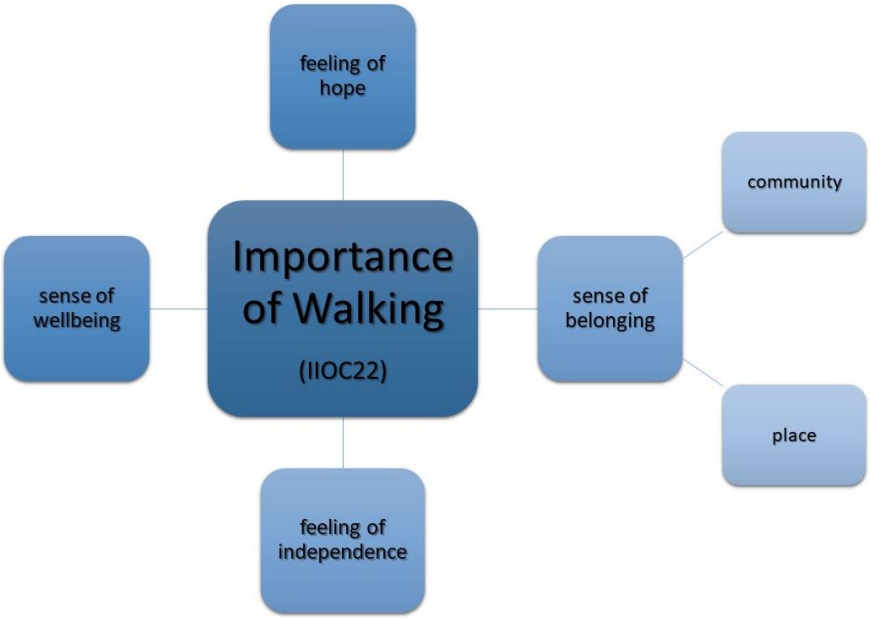


Figure 5.4 The importance of walking from a perspective of an older person living alone

Source: Researcher's construct (2019)

Regular walking therefore can help to maintain older people's competencies, and reduce the incidence and severity of physical and mental ill health. Also, as illustrated in Figure 5.1, this study found that walking helps to enhance an individual's feeling of hope, independence, sense of well-being and sense of belonging towards community and place. Thus, consistent with previously mentioned literature, this study suggests that the provision of an inclusive walking environment can encourage older people's social participation in city life, as well as their health. Understanding and catering for older people's competencies and their need for social participation and sense of place in an urban walking environment will encourage older people to walk more, including in / into the city centre.

In promoting spatial justice through a walkable urban environment, this study advocates that enabling older people to walk in and around the city centre is important. A crucial means to support older people's access into the city centre is through the provision of reliable public transportation. Older people should not be excluded from walking into the city centre, because of their needs for social interaction and sense of place, as well as access to services. However, for walking for health and wellbeing, older participants in this study preferred to avoid to city centre and to walk elsewhere. This will be examined more in the following chapter, Chapter 6 where it is discussed that the condition of the built environment in Birmingham City Centre discourages older people to walk for health and physical well-being purposes.

Older people highlighted five main attributes that they expect to get from a walkable city; 1) prioritised travel on foot, 2) supportive built environment, 3) interest or reasons to walk, 4) greenery and views and 5) integration of public transport. This study found that the first attribute, which is prioritised travel on foot is crucial for older people and relates to the safe walk attribute introduced by Speck (2012). Older people have a slower speed of walking compared to others and are more vurnerable to falls. A walkable city that has a limited usage of car, motorbikes and bikes will offer less risk for the older pedestrian to walk in the city centre and offer better person-environment fit.

Then relating to the expectation of supportive built environment, provision of benches are reported crucial for older people. This study suggests that the built environment exerts environmental press on older people and the provision of benches along the street path acts to support older pedestrian competency in walking. Benches

also have been highlighted as a way to encourage social interation and conversations among people creating a third space (Soja, 2010).

Viewed through the production of space theory (Lefebvre, 1974a), the provision of benches as designed by the planner can be seen as a representation of space. However, through the daily activities reported by the participants, the social interactions and conversations occurring around the bench's space, spatial practice and representational space is created by the users. By providing for a comfortable walk (Speck 2012), and opportunities for engaging in the production of space, benches or seating areas along the street path promote spatial justice for older people in a city centre.

Lastly, greenery and views were highlighted as attributes that offer an interesting walk (Speck, 2012). Participants views can be seen to align with Speck's (2012) theory of what is provided by a walkable city, in terms of a safe walk, a comfortable walk and and interesting walk, but unpack them into the specific attributes needed from the perspective of older people. The next chapter discusses older people's views of the walkability of Birmingham city centre specifically.

CHAPTER 6 EXPERIENCES AND BARRIERS OF A WALKABLE CITY (FROM THE PERSPECTIVE OF OLDER PEOPLE)

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody" (Jacobs, 1961, p.238).

6.1 Introduction

The previous chapter explains the expectations for a walkable city from the perspective of older people. This chapter will present older people' walking experiences: the barriers and challenges to walking in a so-called designated walkable area in the City Centre of Birmingham. Older people are among potentially vulnerable groups that experience exclusion in walking within the city centre (Roorda et al., 2010). However, it is believed that getting in touch with activities in a city centre is essential for older people's social participation in city life. Therefore, in response to the lack of urban planning research focusing on the pedestrian experience of the older generation (Middleton, 2010), the following findings will provide evidence identifying to what extent a designated area of a walkable city in Birmingham City Centre meets the older people's needs and affects their participation in city life

6.2 What makes older pedestrians walk in / into the Birmingham City Centre

The previous chapter revealed the reasons for walking among older pedestrians in everyday life. In this chapter, reasons for older pedestrians walking specifically in or into Birmingham City Centre will be discussed. This study found that the reasons to walk in / into Birmingham City Centre for older people slightly differ from other groups of people. Understanding the reasons that makes older people walk in/into Birmingham City Centre are crucial in promoting inclusive walkable city planning. Planning a city centre must consider older people's needs in order to facilitate more older people to walk in/into the city centre.

Lefebvre (1974b) and Soja (2010) suggested that social activities are highly influential in the production of space. In the context of this study, the designated area of a walkable city in Birmingham City Centre is a product of social activity and needs to be regulated to solve inequalities. According to Speck (2012), one of the main criteria for designing a walkable city is offering opportunities for a purposive walk for all, which includes older people. In other words, older people also have the right to walk and explore a walkable city for their own purposes. This study found that the majority of participants will walk out from their neighbourhood area to the city centre to fulfil a specific purpose:

> When I'm going into the city centre, I need a purpose (IIOC25, Female, 82).

> I come [referring to the Birmingham City Centre] when I have got a reason to come. Otherwise, I would not come (IIOC31, Female, 73).

Previous studies have focused on investigating older people's walking needs in neighbourhood areas (Sohn et al., 2012; Duncan et al., 2012; Jones, 2010; Talen and Koschinsky, 2013). However, this study addresses older people's walking needs in the context of a city centre because a walkable city project is usually located at the heart of a city centre (Birmingham City Council, 2010). An inclusive walking built environment should support older people's walking rights in either purposive or recreational walking modes. Thus, it is crucial to offer varied walking purposes in order to attract, encourage and support older people to walk in the city centre:

> If you've never come to the city centre, then you're missing out on those leisure activities (IIOC10, Female, 72).

In constrast, the research analysis found that fewer participants walk into the city centre without a specific purpose:

> I don't spend time walking around the city centre. There are times that I go in to shop, but I tend just to go and look for the things, I mean I don't shop around for hours (IIOC34, Female, 76).

Participants' goals will significantly affect individual decisions to walk. This finding also echoes the literature that stated there are two types of walking; 1) utilitarian (purposive) and 2) recreational (Adkins et al., 2012; Wood et al., 2010; Ariffin and Zahari, 2013). Based on the analysis of this research study, it was found that the majority of participants walk in and to the Birmingham City Centre with a utilitarian type of walking

– a purposive walk for transit, cultural, shopping or administrative purposes. One significant reason why older people walk in/into the Birmingham City Centre is for transit purposes.

> I go into the city centre if I want to catch a mainline train, for instance, or if I want to cross the city and catch a bus out of it or train out of it. (IIOC26, Female, 75)

Reliable public transportation holds an important role in supporting accessibility and connectivity, enabling older people to walk in a city centre (Föbker and Grotz, 2006; Djurhuus et al., 2014). In this study, it was reported that the majority of participants live outside Birmingham City Centre, with a range of 3 to 6.9 miles away from the city centre. This highlights that the provision of free bus passes to pensioners encourages and helps them to walk in/into Birmingham City Centre (Age UK, 2015):

> You can go anywhere in the country without paying for your bus pass (IIOC09, Female, 72).

In addition, the majority of participants also claimed to have a good experience with the public transportation service in Birmingham City Centre. The findings of this study indicate that the provision of public transportation influences older people's decision to walk and going to the city centre. A participant stated that accessibility across the city or country becomes easier with the provision of public transportation in Birmingham City:

> I use the train. It's good because we have Moor Street as well as New Street and there's Snow Hill as well. So you got a choice where you want to go. You can get to different parts of the country. Because we're in the middle of the country, so you can get to where you want; I think it's good (IIOC07, Female, 65).

However, some of the participants highlighted several issues that need to be considered for the improvement of public transportation in Birmingham City Centre. Firstly, the participants claimed that the bus route changes affect their walking experience in the city centre as the new bus route and bus stop arrangements are claimed to be less convenient, especially for older people:

> We used to have the bus stop right in the centre, and they used to go round to the market so you could always get a bus. They all used to stop, they all used to go down the city. And then they've made such a mess, so you don't know where the bus stops (FG02).

Secondly, the study findings also brought up the issue of expensive bus fares in Birmingham City Centre. Although the majority of older people received free bus passes, there are also some older people without bus passes for one reason or another. These people mentioned that the bus fare is too expensive in comparison with other cities that have centralised fare tickets for all types of public transportation. Privatisation of public services should be controlled by the local authority so that it will not discourage people, especially older people, from going out and walking in the city centre:

> The bus fares are now £4 for a day saver. That's quite a lot of money. So that will stop some people going into town; people who hadn't got the bus pass yet, and who are on a low income (IIOC07, Female, 65).

Lastly, this study highlighted that the lack of linkages between the existing trains, trams and bus stations in Birmingham City Centre makes older people's walking experiences more difficult. There are no linkages concerning fares, or covered and clear pathways between each station. For example, participants claimed that there is no direct access from the tram station to the train station in Birmingham City Centre. In addition Birmingham Coach Station (the Birmingham bus station) is located far from Birmingham New Street Station (the Birmingham train station).

The second leading reason why older people walk in/into the Birmingham City Centre is for cultural services and events that are mainly offered or held in the city centre area. Music concerts, theatres, museums and art galleries are attractive reasons for older people to walk in/into the Birmingham City Centre. With spending power and flexibility of time, older people have an advantage to support the cultural events that are held in Birmingham City Centre.

> I used to go to an organ concert in the Town Hall that was once a week, every Monday. Well, that's not for old people, but there are a lot of old people because it is lunch time and it's organ music. (IIOC14, Female, 67)

> I'm involved in the museum and art galleries in the city centre. (IIOC04, Female, 71)

> Cultural reasons largely. The theatre or art films...I use the city for cultural reasons. (IIOC37, Female, 82)

A third leading reason why older people walk in/into the Birmingham City Centre is for selective or specific shopping purposes. Neighborhood areas offered basic shopping amenities and groceries that are usually needed by older people. However, for a special occasion shopping, big stores such as Marks & Spencer, Primark and John Lewis are located in the Birmingham City Centre. Besides, other main shopping attractions mentioned by the older people such as Birmingham Fish Market, Christmas Market and Birmingham Rag Market were located at the heart of Birmingham City Centre.

> There is such a wide variety in Birmingham Fish Market. You can get fish from New Zealand. (IIOC12, Male, 66)

> Perhaps for something specific to shopping; pre-Christmas shopping. (IIOC37, Female, 82)

> I am coming to Primark. Cheap clothes. (IIOC18, Female, 71)

However, some participants found fewer purposes to walk into the city centre because most of the basic amenities, such as coffee and groceries shops, have been provided in the local neighbourhood area:

> I don't come to meet friends in the city (IIOC17, Male, 68).

> For food shopping, I would usually do in Moseley [referring to one of the local neighbourhood areas in Birmingham] (IIOC15, Female, 82).

Lastly, the fourth leading reason of why older people walk in/into the Birmingham City Centre is for administrative purposes such as court hearing, banks and offices that are limited in their neighborhood area.

> I had something to do at the court, so I went for that. (IIOC23, Female, 74)

> I'll come if I have administrative things to do. (IIOC17, Male, 68)

To summarise, this study concludes that older pedestrian walks in / into the Birmingham City Centre with a purposive type of walking which includes 1) transit (public transportation, 2) cultural services and events, 3) shopping and 4) administrative purposes. Older people walk in the city centre less for leisure or recreational purposes, as compared to other purposes mentioned above.

6.3 The barriers and challenges to older people in the walking environment of Birmingham City Centre

Urban design is crucial in addressing the character of a walkable path network that can encourage people to walk (Forsyth and Southworth, 2008). In designing a walkable city, Southworth (2005) also highlights the importance of street network design in encouraging people's decisions to walk. Moreover, extra attention should be given to physical barriers in the street network to accommodate the needs of older people, especially those over 80 and people with physical limitations (Wennberg et al., 2009). Thus, in adding to the existing studies of physical barriers to walking among older people (Rosenberg et al., 2013; Eronen et al., 2014; Day, 2010a), this study focusing specifically on a city centre, found that topography, walking paths, perceived safety and other people's attitudes are the factors that can facilitate or contribute barriers to older people in the walking environment.

6.3.1 Topography

> I wouldn't say Birmingham City Centre is particularly a town for old people. That is because of its topography: up and down (IIOC23, Female, 74).

Designing with the natural topography in a walking environment is crucial because it affects walkability for older people. The topographical barriers such as slopes and hills

affect older people more than others because of ageing health issues such as problems with respiratory and cardiovascular systems, joints and strength (Day, 2008b). This study found that it is difficult for older people to go up slopes and hills without any built environment support such as handrails because their physical ability becomes more limited as people get older. This makes the walking environment in Birmingham City Centre challenging for older people because of its hilly and sloping topography:

> The big problem when you are walking at old age is a slope. I don't mind going down the slope, but I hate going up because I get tired very quickly. And that is the problem with Birmingham City Centre (IIOC41, Female, 91).

The study findings highlighted that the majority of participants dislike and perceive adverse natural terrain, especially slopes and hills, as a barrier that discourages them from walking. Steep and slippery slopes are found to provide a risk to older people while walking in Birmingham City Centre especially during bad weather:

> I couldn't help thinking that a slope is definitely not a good thing, that it is a hazard. There's nothing even to hold if you were going to fall. It's got that paving which is terrible and even in the rain that would be dangerous [referring to the big sloping section of paving between the Bullring Shopping Centre and the market area] (FG04).



Figure 6.1 (left) The existing outdoor ramps in Birmingham City Centre

Figure 6.2 (right) The existing outdoor stairs in Birmingham City Centre

Source: (Birmingham City Council, 2011a)

The provision of stairs, a ramp, lift or escalator are alternatives to slopes and hills (Haning et al., 2011). However, this study found that the majority of participants consider the existing outdoor stairs in Birmingham City Centre too steep and difficult. For example, the big stairs without a handrail from the Bullring Market into New Street – participants claimed that they tend to avoid using the stairs because of adverse effects on their physical health and their whole walking journey:

> The steps themselves make me put too much weight on my damaged leg (IIOC37, Female, 82).

> There could be a handrail somewhere because steps are very hard for old people. Most of the old people don't do it [referring to the climb of the slope near the Bullring Shopping Centre] because they haven't anything

> to hold on to. Even if they have a stick, they need to be able to hold on somewhere (IIOC02, Female, 82).

The provision of handrails at stairs or ramps is crucial for older people, especially for those in their 80s and above, because of their health and physical requirements (Wennberg et al., 2009). The provision of a handrail was also found to help older people to always keep in mind the need to move slowly, be careful with the stairs, hold onto the handrail for balance support and reduce the risk of falling:

> If there's a step, I always like to have a handrail. It is very important for me because ten years ago I fell down the stairs. But now I'm more careful, and I'm happy to hold on the handrail so that it's always in your mind to be careful (IIOC40, Female, 71).

During bad weather, rain, snow or icy conditions will pose additional risks for older people more than others. The conditions become worse when older people are carrying bags or walking aids (sticks) where they are only able to hold the handrails (if they are any) with one hand while carrying bags with the other hand. Prevention strategies for slippery outdoor pavements in rain, snow or icy conditions are therefore crucial, especially for older people (Wennberg et al., 2009):

> Steep rises [are dangerous]. As you get off the 67 bus, you step down there, got to get up to go down to the market; there are steps everywhere. And if you're carrying bags you've got to hold with one hand and carry bags in the other (FG04).

Older people are often not very keen to use escalators compared to lifts because of their balance issues. However, the disadvantages with lifts are that their location is usually quite isolated with poor sign-posting. The study findings show that new developments such as the Grand Central and Birmingham Main Library are reported to have very high escalators that are not suitable for older people to get access:

> The escalators at the Grand Central are very tall and very spread out. If you get older and you have balancing problems, the escalator is not a good thing. I find it not easy (IIOC23, Female, 74).

In respect to the existing natural topographical conditions in Birmingham City Centre, it is accepted by the participants that urban planning and design cannot easily change or alter the hills or slopes. However, it was found that majority of older people prefer to walk in a flat area. As supported by previous studies (Day, 2008b; Rosenberg et al., 2013), this study provides evidence that a flat area facilitates, attracts and encourages older people to walk more than a hilly area. Participants claimed to enjoy walking in flat areas such as at the Victoria Square and canal area where there are less risks and barriers to walking:

That's an excellent flat walk [referring to the walk from the art gallery to the squares] (IIOC07, Female, 65).

I walked a lot along the canals because it was very flat (IIOC25, Female, 82).

6.3.2 Physical barriers in walking paths

Walking path design is an important element in planning the built environment of a walkable city (Southworth, 2005; Tiwari, 2015). Thus in this section on walking paths, this study will will unpack the reality and experiences of older people in the city centre's walking environment. The difficulties experienced by older people using walking paths include various physical barriers in the built environment, such as uneven pavements, high curb ramps, pedestrian underpasses, poor sign-posting, and lack of public facilities and amenities.

6.3.2.1 Uneven pavements

Participants said that they experienced many problems with pavements in the walking environment in Birmingham City Centre. This includes unevenness, poor quality or materials and maintenance, confusing patterns and high curbs. It was reported that uneven pavement surfaces posed greater tripping risks to older people than others. Some participants reported that they give uneven pavements extra attention because of their past history of falls. Thus, while walking, older people usually limit their vision by looking down to the ground surface to avoid falling and hence have a less attractive experience in their walking journey:

It is worrisome, especially when the other surface is raised above the other. It's been almost 70 years now. So I know that I did have a bad fall while I was pregnant because of the raise on the paving stone. This made me very careful ever since (IIOC24, Female, 93).



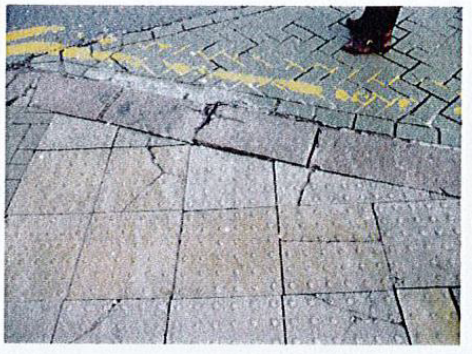


Figure 6.3 (left) The uneven surface of pathways

Figure 6.4 (right) Poor maintenance on different types of pavement materials

Source: (Birmingham City Council, 2011a)

This study also found that the selection of materials and design pattern for the pavement surface affects older people's walking journey more than others. In urban design, different materials and patterns on pavement surfaces are introduced to differentiate function and indicate signs (MacNeil, 2012). However, participants reported that too many different types of material and patterns on the surface of pavements in Birmingham City Centre created confusion and uncomfortable experiences. The use of materials such as small bricks and cobbles for pavements were found to be dangerous and risky for older people because of the unevenness and the materials are easy to choke up.

Birmingham City Centre has so many different types of pavement surfaces: for pedestrians, car parking, delivery of goods. Some have a sign on it, or pattern and there's also an area that has a gutter where the water goes to drains. And I think that is difficult for us as old people to differentiate and go through because some of them are not even and flat (IIOC39, Female, 81).



Figure 6.5 Different materials and patterns on pavement surfaces in Birmingham City Centre

Source: (Birmingham City Council, 2011a)

6.3.2.2 High kerbs

High kerbs affect older people's walking journeys (Ståhl et al., 2013; Rosenberg et al., 2013) because of balance and physical limitation issues in older people. The findings show that participants with walking aids such as a walking stick or walking trolley found the high kerb is very difficult and challenging. For example, the kerb at the tram stop station in Birmingham City Centre is at ankle height level which affects participants with a back problem more than others, in obtaining access to the tram. To make things even worse, it was also reported that it is not easy to find a kerb ramp while walking in the city centre area:

> I would get quite angry when I was pushing my mother in a wheelchair. We went to various places in the city centre, and there wasn't always a dropped kerb (IIOC35, Male, 75).

6.3.2.3 Pedestrian underpasses

Planning and designing connectivity for a new and existing city is not the same (Southworth, 2005). As a post-industrial city, Birmingham City Centre suffers from lack of pedestrian connectivity because of its ring roads and highways. As a result, underpasses were designed to address pedestrian connectivity in Birmingham City Centre. Although separating pedestrians from traffic is crucial for a walking environment, this study found that the majority of participants perceived underpasses as a design failure, especially in promoting walkability in an urban area, because the design has the unintended

consequence of giving priority to vehicles and the highway development above it and neglecting pedestrian safety:

> Like the big mistakes they made when they created the underpasses and put us underground and the cars over the top (FG02).

It was found that underpasses place older people at a significant disadvantage (Ormerod et al., 2014), especially where an underpass has a changing level, which integrates stairs or steps. As discussed previously, older people dislike stairs and avoid using them as it will affect their breathing and leg conditions more than other modes of travel:

> There is a certain subway in Birmingham City Centre. I don't like it there. I have to go down the steps (IIOC18, Female, 71).



Figure 6.6 Poor access – the integrated stairs to underpass

Source: (Birmingham City Council, 2011a)

The design of the underpass is claimed to produce a dark, quiet environment without visible or transparent space which affects older pedestrians' walking experience especially women, more than others. For example, the majority of female participants claimed that they tend to avoid using the underpass in Broad Street especially during night-time due to low visibility, poor lighting and the perceived high risk of crime in that area. The poor condition of the underpasses in such a way create opportunities for crime and misbehaviour activity to happen there.



Figure 6.7 Poorly lit tunnel and covered walkway (underpass)

Source: (Birmingham City Council, 2011a)

Thus, there is a need to add aesthetic elements to make underpasses an attractive path to walk. For example, one underpass with good lighting and billboard design near

the Town Hall area did catch participants' attention and attracted them to walk through the provided underpass. It was claimed to show good practice where there are conditions providing sufficient lighting, interesting information, it is busy with people and with clear visibility along the underpass and the surrounding area:

> The underpasses are the places that you never think of going. But it [referring to the underpass near the Town Hall area] picked up and advertised important information about Birmingham and that was excellent. That attracts certain groups of people including the elderly (IIOC39, Female, 81).

6.3.2.4 Wayfinding and signposting

The provision of effective sign-posting has been found to be crucial in encouraging older people to walk in and around the city centre. Although the majority of participants reported that they are familiar with Birmingham City Centre and do not really need to refer to sign-posting while walking in the city centre, this study found that there is a great need for effective sign-posting in a new development area such as at Birmingham Grand Central (Birmingham's new train station) where the majority of participants highlighted that they had lost the familiar environment of the old train station:

> Well, I think Grand Central is awful for older people. Because I think it's very hard to find your way. I don't think the signage is good (IIOC23, Female, 74).

Based on the study findings, some participants felt that the provision of signboards with poor design and poor selection of type, size and colour of the text makes older people's walking experiences more difficult. As discussed earlier in the previous chapter, the majority of older people will have an eyesight issue that needs to be considered while designing sign-posting elements:

> Sometimes there are signboards that are not very clear; it's not very obvious which particular way to go (IIOC17, Male, 68).

For example, although the canal area has the advantage of a linear form of design which provides a clear sense of direction, the detailing of the sign-posting design with information about the location and distance demonstrates good design practice of effective sign-posting.

> The canal in the towpath is well signposted. Because it gives you some idea of where and how far you are away from your next point of interest (IIOC22, Female, 71).

The participants also pointed out that monuments or sculptures provide good landmarks for way-finding (Phillips et al., 2013). A good landmark can act as a point of reference, and this study found that older people need points of reference more than other groups of people to provide a sense of direction. A monument such as a clock tower has been highlighted by the participants as a good landmark in a public space. This study

found that a significant, longlasting monument is very helpful to support older people's sense of direction, especially in an urban area where the majority of the surroundings will change as the built environment develops, except the significant monument that has a historical and aesthetical value for people to remember and appreciate:

> In the old stations, there was always a clock in the middle. And you could say to somebody; I'll meet you by the clock. Now there's no central place where you can say I can get my bearings from this point. Or I meet you at this Pret a Manger. But there isn't a monument or something significant, at the centre of it. And I think the new train station [referring to the Grand Central] needs that (IIOC07, Female, 65).

6.3.2.5 Rest facilities

This study found that facilities and services such as public toilets and rest areas can be facilitators for older people's walking in a city centre, but if the facilities are absent or are designed without any consideration for their walking needs, this is a barrier (Mackett, 2015). A lack of provision of public toilets and resting areas in Birmingham City Centre makes older people's walking experiences more challenging. Based on the existing literature, the provision of public toilets and rest areas are not only beneficial for older people, but also for other age groups of people, and are particularly needed also by children, pregnant women, and people with some medical issues or disabilities (Lo, 2009).

Previous literatures highlighted the importance of providing benches and more public toilets in ensuring older people's comfort and atttactive walk (Mackett, 2015; Jelle Van Cauwenberg et al., 2016; Lockett and Willis, 2005), as did the previous chapter Research on Flemish older people in Belgium suggested that the provision of benches influences older people to walk more than one hour in that particular street (Jelle Van Cauwenberg et al., 2016).

This study found that there is a great shortage of public toilets and rest areas in Birmingham City Centre which affects the majority of older people's walking experiences:

> Walking is very difficult because there are not many public toilets in the city centre (IIOC24, Female, 93).

This situation limits and discourages the elderly from walking in a city centre as the majority of the research participants stressed that older people would need to rest (Ottoni et al., 2016) and use toilets more frequently than other age groups (Musselwhite, 2014) because of their current biological bodily needs which cannot be neglected. This study found that a weak bladder, breathing and leg issues among older people dictates their needs for a public toilet and rest area are greater than for other people:

> You need to use the toilet more often, like every hour because your bladder doesn't work the same as it did. When you need to go to the toilet, you need to go now. It's quite desperate (IIOC11, Female, 75).

> I can't walk all the way across the city without having a rest. If I want to go from New Street Station to the museum, art gallery or library, that's a big walk. I will need a place to sit and rest (IIOC11, Female, 75).

As for examples of provision, participants claimed that there is only one public toilet available in the market area. Otherwise, they have to go into the nearest business premises such as department stores, pubs, cafés or restaurants to use the public toilet. In addition, there is no public toilet in St Martin's church by the market, but only in the café located there. Consequently, in order to use the toilet which is available for café customers only, people have to buy something there. This scenario also applies to the provision of rest areas in the city centre. Thus, the provision of these type of toilets in semi-public places makes older people's walking experiences more difficult because they will need to contribute to the premise's business sales before being able to use the facilities such as toilets and seating:

> They [referring to the local authority] are building all these shopping malls, and there is nowhere you can sit unless you go there and spend money. You have to go in and buy a cup of coffee or buy some food (IIOC11, Female, 75).

> People have to buy something, to get to the toilet (IIOC16, Male, 74).

It was reported that older people's walking experiences are made more challenging by insufficient places to shelter from bad weather, such as a covered rest area at a bus or tram stop in the city centre. Also, some of the seats at bus stops are claimed to be too

small and slanted to provide comfortable seating for older people making them feel uneasy and uncomfortable. Participants also relate the issue of insufficient resting places and shelter in the city centre with the presence of perceived undesirable social groups such as drunks, homeless people and beggars. It was reported that the lack of comfortable resting areas is due to the local authority's actions to prevent or reduce rough sleeping in the city centre:

> It is difficult because you don't have a place for people to sit down. Then the council will say that the drunk or homeless will use it (IIOC14, Female, 67).

6.3.3 Feeling safe

Older people' difficulties in communication, access to information and mobility will exacerbate their vulnerability in a walking environment. In parallel with previous literature (Eronen et al., 2014), this study found that safety and health issues highlight older people's vulnerability in a walking environment more than others. This study found that lower health levels will increase one's feeling of vulnerability in a walking environment:

> I think it is because of our health as well. I would not walk much if I am not fit because I would feel more vulnerable (IIOC38, Female, 71).

One participant commented that with her increasing age and current health condition, she had a limited ability to defend herself in any danger or difficult situation while she walks. Older people are vulnerable while walking alone as their ability to run, deflect attacks or defend themselves is limited:

> As I'm getting older, I realise that if I was attacked or if anything bad happens, I wouldn't be able to defend myself. I wouldn't be able to run, and I feel a lot more vulnerable than I used to be out walking on my own (IIOC11, Female, 75).

Considering the growing number of elderly people, increased attention to fear reduction should be paid when designing public spaces including a walkable city. Hence, the provision of safety and enabling people to feel safe in a city centre are crucial for older people because of their vulnerability in various ways:

> It’s how you get people; the more you get people to use it [referring to the Birmingham City Centre], the safer it becomes (IIOC38, Female, 71).

6.3.3.1 Traffic

As a city centre is a place for all, safety issues related to traffic and crime are also increasing. The safety issue is one of the challenges that older people have to face while walking in a city centre because there is a higher risk of accidents among older people in an urban area (Dunbar et al., 2004). The study findings indicate that older people feel

unsafe walking in an urban area because of the heavy traffic. For example, participants claimed that Moor Street has heavy road traffic that makes older people feel intimidated while walking in that area:

> I know that the Birmingham City Centre is based on getting traffic in the 90s and they [referring to the local authority] have done it more for traffic rather than the pedestrian. There is the only New Street where there is no traffic around (IIOC02, Female, 82).

Crossing roads in an urban area can be difficult for older people, as supported by Rantakokko's study (2017), which confirms that dangerous crossroads will restrict older people walking more than others. Based on the individual interviews with older people, the majority of participants found that crossing roads in Birmingham City Centre is challenging because of the heavy and fast traffic. In addition, the natural topography of the City Centre makes road-crossing more challenging as participants claimed that they could not see vehicles coming up or down the road. Moreover, participants also reported that crossing a road with tramlines is challenging as trams go through the pedestrian area with a quiet or silent pace:

> You've got to be careful with those tram lines going through now (IIOC05, Female, 82).

Although some participants felt that pedestrian crossings in Birmingham City Centre were good, providing a clear place to cross and clear lights for pedestrians crossing, the majority of participants reported difficulties. They claimed they struggled to use pedestrian crossings and risked their lives to cross the main road safely because they walk more slowly. The slow pace of older people makes crossing the street more difficult giving rise to feeling more unsafe than other groups of people (Dunbar et al., 2004). The traffic lights change too fast in Birmingham City Centre for older people's walking speed, as compared to others and crossing a wide street with two or three different traffic lights will be quite challenging for older people with a walking aid such as walking stick, trolley or wheelchair:

> Sometimes I think it [referring to the traffic signal] wasn't long enough for older people to get across the road (IIOC23, Female, 74).

In addition to feeling anxious about vehicular traffic, the majority of participants also mentioned that they feel unsafe walking in Birmingham City Centre because of bicycles. Cycling in an urban area is an acceptable trend nowadays as most of the developed countries are promoting walking and cycling for a green and sustainable city. However, the study findings provide support for the contention that a fast bicycle can act as a threat to older people when pedestrian and cycle paths are shared:

> The only difficulty with the towpath is that it's used by cyclists as well, and some of them are not very courteous. And if you've got a bike coming up behind you and you're older, you can't always hear a bike coming, and it's quite a shock

> sometimes (when) they whisk past you quite fast. And it can be quite alarming, can be difficult. I don't panic mainly, I think, I better get out of the way. Some of them ring a bell, which is fine and you can hear them coming. But some of them don't. And some of them do ride quite fast. So I think that can be a downside (IIOC22, Female, 71).

The conflicts between pedestrian and cyclist behaviour in urban areas have been highlighted in a previous study where there are unclear guidelines between them in using an urban space (Pooley et al., 2014). Thus this study suggests that there is a need for awareness training among different communities, as participants confirmed that often cyclists were found cycling on the pavements, especially during night-time in order to avoid vehicular traffic on roads:

> If you're cycling, you're not supposed to cycle on the pavement, but every now and again, at night if there's nobody else around, they'd use the pavements. It's very important not to cause any problems for the pedestrians (IIOC35, Male, 75).

> It's just that I don't think they take any notice of pedestrians. They are getting somewhere, and they don't go on the roads. They use the pavements all the time. Now with the volume of traffic, I can understand it is dangerous, and a lot of them, unfortunately, don't wear a helmet either (FG04).

6.3.3.2 Crime

Participants reported that the crowded shopping streets also provide opportunities for crime to happen. Some participants claimed that they feel vulnerable to crime in such crowded areas, especially when carrying bags or other personal goods:

> The Christmas Market is a terrific thing now. It has come to the point that it attracts thieves as well as tourists (IIOC37, Female, 82).

Older people are considered to be vulnerable to crime as they are not able to act, avoid or protect themselves in most of the dangerous situations such as pickpocketing and social violence (World Health Organization, 2002). Some of the participants also claimed that the city centre is not safe for older people to walk because of the wrong people and crime rate, not because of the inappropriate facilities or infrastructure:

> The city centre is not safe anymore because of people rather than the facilities itself (FG03).

However, participants felt that the provision of more police walking on the street, CCTV and help points in the city centre can promote a safer and more secure walking environment, especially for older people:

You need more police on the streets, instead of driving around in the saloon cars (FG03).

I think in Birmingham there is a point that you can press the button when you're in danger. Have you seen those? It is all over the city centre. There's help point that you can press the button if you think you're in danger (IIOC18, Female, 71).

I think it is safe as it can be because it has security camera over it, so we don't think it's a danger (IIOC12, Male, 66).

6.3.3.3 Lighting

As mentioned in previous literature, well-maintained street lighting encourages older people to be active in outdoor physical activities (Davoudi and Brooks, 2012; Mackett, 2015). In the case of Birmingham City Centre, older people indicated that there is a need for them to walk at night in the city centre to attend a theatre or concert show. This study found that streets near the theatre and concert venues are not sufficiently provided with good lighting such as at the area of Colmore Row, the Town Hall and Art Gallery:

The lighting down by The Alex, coming up from The Alex to Colmore Row is not very good. The lighting is bad down John Bright Street (FG02).

There are areas that seem quite dimly lit; for instance around the back of the Town Hall and the Art Gallery (IIOC43, Female, 74).

The relation between good lighting and feeling safe is supported by a previous study that stated inadequate lighting promotes feelings of insecurity especially among older pedestrians (Stathi et al., 2014). As mentioned previously, this study found that the majority of participants avoid coming into the city centre during night-time because of the poor lighting and not feeling safe. According to the study by Ceccato and Bamzar (2016), this type of preference (going out at certain times) presents the behavioural response of older people to conditions of perceived low safety:

> I think one thing depends on what time of day it is, doesn't it? It doesn't feel really safe in the evening. And I would certainly walk with caution. Sometimes I would avoid places that I don't like to walk around late at night. For instance, I've never liked the walk up from the Hippodrome to the bus stop. Usually, I will get a taxi (IIOC43, Female, 74).

The findings of this study indicate that older people avoid walking at night in the city centre because of their perceived vulnerability and limitations due to poor eyesight, not feeling safe and fear of falling. Participants also highlighted the inadequate lighting of information boards at bus stops during night-time exacerbates difficulties caused by their poor vision:

6.3.3.4 Pollution and cleanliness

Lack of cleanliness of services in public buildings (e.g. toilets, lifts and steps), transportation (e.g. buses and trains) and walking streets in Birmingham City Centre have been highlighted in the findings in this study. As a health and safety issue, pollution in a walking environment affects older people more than other groups of people because of older people's vulnerability to air pollution (World Health Organization, 2002). Litter can act as physical barriers (Kelly, 2011), and the unpleasant smell can affect older people's health conditions (e.g. respiratory system) in a walking environment more than others (Day, 2008b):

> If you walk in the city centre, you've got to avoid all the rubbish that's on the road (FG01).

> When I discovered it at the back and underneath steps [referring to the isolated location of lift near the market area], there's a urine smelling lift (IIOC37, Female, 82).

The cleanliness issue of public toilets has been highlighted not only in this study but also in previous literature. The findings show that often public toilets are found in an isolated location and in an unclean condition. However, provision of clean, visible and free public toilets such as at Birmingham New Street Station have been highlighted by participants with favourable remarks for their walking experience in Birmingham City Centre. The St Philip's green area has also been identified by older people as a good example of space that offers tranquillity (less noise and less crowded surroundings) and

greenery for a comfortable and visible rest area. Thus, to provide comfort (Speck, 2012) and to encourage older people to walk more (Rosenberg et al., 2013), this study suggests that the provision of comfortable, clean and visible rest areas and public building services are crucial.

6.3.4 Other people's behaviour

This study found that other people's behaviour and use of space made the walking experience of the elderly more challenging and uncomfortable. Participants maintained they felt intimidated by young people, the homeless and beggars, and crowds in the walking environment of Birmingham City Centre.

Negotiating with young people in a walking environment is not easy for older people, as the majority of participants claimed that young people are quite loud and dominant in Birmingham City Centre. For example, young people congregate in the Broad Street area, especially during night-time. The majority of participants stressed that they tend to avoid walking in the Broad Street area because it is a club and pub area, subject to violence associated with drunk and disorderly people. This is an issue for older people attending the symphony hall, theatre, public library and cultural services in the canal area, which are all adjacent to Broad Street.

This study also provides support for the claim that older people dislike noises more than other age groups of people. Too much noise from police cars, ambulances with lights

flashing, music in the street, people talking, laughing and shouting can act as a threat for older people in a walking environment:

> I can't cope with the noise. There's too much loud noise. For old people, that amount of input is too much for us (IIOC11, Female, 75).
>
> I find it has too many bustles [referring to Birmingham City Centre]. Too many noises and activities going on and I think some old people may find that difficult and a bit uncomfortable (IIOC35, Male, 75).

For example, a group of young people doing a street performance on the pavement area with loud noise makes some older people feel intimidated and uncomfortable while walking through the area:

> I don't seem to like young people as they are quite loud. Once I was passing by the pavement, and I bumped into a group of kids doing break dancing and I wanted to walk there, there are many loud noises and people shouting here and there. I hate the music going on; it's like you're being invaded by things you don't want. (IIOC38, Female, 71)

However, there are also some participants who view street performances and activities as a positive contribution to the city. Some older people do appreciate the

licensed street performances such as the conjuring tricks or street music which makes the walking environment lively and fun in Birmingham City Centre.

This study also provides support for the contention that a conflict of priority and respect exists between older people and younger people in a walking environment in Birmingham City Centre. Participants commented on the disrespectful attitude of younger people in failing to give priority to older people to allow them to sit in the rest areas. There are conflicts where often a rest area is being occupied by younger people, and they do not want to give up their seat for an older person:

> You can't always guarantee seats will be free for older people because they are often taken by young ones (IIOC39, Female, 81).

This study provides support for the argument that there is a gap of recognition and respect between both groups in current social behaviour. Participants also reported that they have less confidence and low expectations of the younger generation in respecting and recognising older people's walking needs:

> I think even if you designed them [referring to benches] for older people or people with less mobility, I'm not sure whether the young or other people would respect that (IIOC22, Female, 71).

Besides negotiating with younger people, participants also claimed that people who walk while using gadgets could act as a threat to older people in a walking environment. A previous accident analysis and prevention study (Zhuang and Wu, 2011) supported that people who walk while using mobile phones might affect older pedestrians' safety more than others. In the case of Birmingham City Centre, participants claimed that they have to walk in an extra cautious manner alongside people who walk while using gadgets, such as mobile phones, and with any related distraction actions such as talking, texting, checking on GPS or listening to music. It was found that using gadgets while walking makes everyone too busy with their world without concern about others, especially the least advantaged groups of people in a walking environment, including older people:

> People are texting on their phones, walking into you because they just don't look at where they're going. If you walk from here to New Street Station, you will see 10, 15, 20 people either texting, looking at their phones or they've got earplugs in and they couldn't hear you if you shouted at them (IIOC32, Male, 68).

Then, in contrast with the theory of a walkable city that aims to make people feel safe and comfortable while walking in a pedestrian environment (Speck, 2012), this study found that a crowded area in a walking environment can cause discomfort among older people. The majority of the participants as pensioners, dislike being in a crowded area because they do have more time and prefer to walk more slowly rather than rush to keep up with the crowds. In a crowded area, older people were found to feel more vulnerable as they are facing more walking difficulties in negotiating with people and space than other more able people. Participants claimed that there is a higher risk of people pushing each other in a crowded area such as in the Bullring Market and the Bullring Shopping

Centre, especially during peak hours. Negotiating with rushing and hustling people during the peak hours is challenging, especially to those with a walking aid such as a walking stick. Although the city centre is supposedly designed for all, during the peak hours, older people can feel that they are not being welcomed and invited to walk in the city centre:

> I don't like to be with a lot of crowds. Sometimes you are walking like "Oh excuse me, oops excuse me" (IIOC15, Female, 82).

Crowdedness affects older people more than other age groups because of older people's vulnerability caused by their physical health condition and not feeling safe. The majority of participants stressed that if it is too crowded, there will be many rude people pushing and shoving and that makes them feel vulnerable. One example of an overcrowded venue identified by the participants is the Christmas Market held in Birmingham City Centre a month before the Christmas Eve festivities. The crowds of people in the Christmas Market can be quite challenging for older people to walk among and the majority of participants mentioned that they would tend to avoid the crowded area:

> It is not that they meant to push you, but it's so crowded. And because of that, I tend to walk the other way, past the cathedral rather than going through New Street, where the Christmas Market is (IIOC28, Female, 71).

Another disturbing issue highlighted by the participants relates to the homeless and vagrants in the city centre. The increasing number of people who are homeless and begging in the streets are claimed to affect the city image and the quality of the walking environment. Participants argued that they feel uncomfortable, embarrassed and upset with the situation, but the homeless and beggars never cause them harm nor stop them from walking. The majority of the older people do not feel scared or intimidated while negotiating with the homeless or beggars as long as they are not aggressive or violent:

> The huge thing that I noticed in the last two to three years is the massive number of homeless people, and that is so upsetting. I feel very uncomfortable. I don't feel at all scared or intimidated. I never had a problem with anybody asking me for anything; if they do ask you say "no, thank you" and they will leave you alone (IIOC38, Female, 71).

6.4 Older people's involvement in the walkable city project in Birmingham City Centre

6.4.1 Awareness and consultation

The Birmingham City Centre Vision for Movement 2010 policy includes the walkable city mission for Birmingham City Centre. However, the awareness of older people of Birmingham City Centre's walkable city project was reported to be at a low level. The majority of older participants claimed that they were not aware of the walkable city project:

> I don't remember seeing anything like that on the news [referring to the walkable city policy – the Birmingham City Centre Vision for Movement] (IIOC09, Female, 72).

Furthermore, the majority of participants claimed that they did not notice any development changes to improve walking, especially at places attractive for older people such as the market area:

> There's nothing (referring to the upgraded walkable path) down by the market where most old people do their shopping (FG04).

> What did they see as the needs of the elderly [referring to the walkable city policy – Birmingham City Centre Vision for Movement 2010]? I am interested to know (IIOC43, Female, 74).

A non-white participant commented that he does not even know how and what to contribute because he does not feel that his view can influence the local authority. However, he considered it is important that the local authority restore people's confidence in the local authority:

> Well, I don't think my influence to the City Council would be that important, but what is important is what strategy they are going to use to give these people confidence (IIOC16, Male, 74).

Designing is all about problem-solving. And the best way to unpack an issue is through understanding people's experience and needs.Participants argued that the local authority has limited experience and knowledge about the place and have limited understanding of local people's needs:

> The council does not live in the area, so why should they plan for the people who are living locally in it. I think it's a good idea to have the people's opinion (IIOC05, Female, 82).

So, getting the insight of people is crucial in the planning process, including of older people specifically. It was claimed that previous big decisions in planning, such as the provision of underpasses and the location of the coach station, affect older people more than others regarding their safety, and the walking distance and signposting in the environment:

> Like the big mistakes, they made when they created the underpasses and put us [pedestrians] underground and prioritise the cars over the top (FG02).

> Many of the big decisions are wrong. Like putting the coach station in Digbeth. In any other city, the coach station is often with the bus station and it's right in the middle of the city centre. Here, people coming from other places, get stuck in there and there are no signs for it. It's a long trek to walk, and you don't know what bus to get. And you suspect the people who are responsible for planning, don't use the facilities anyway. So it's quite a struggle (IIOC44, Male, 72).

And in connection with the current big decisions in planning such as the provision of the walking environment in Birmingham City Centre, older people argued that the planners do not consider older people's walking needs, for example for public resting areas:

> That's a problem with Birmingham planners. They're building all these shopping malls; there's nowhere you can sit unless you go there and spend money. You have to go in and buy a cup of coffee or buy some food. They haven't when they first

> redesigned Birmingham, there were lots of places all over New Street, and you could sit down. And gradually, we're losing them (IIOC11, Female, 75).

> There are hardly any public benches to sit on in the city centre. Sometimes the council says well, they will just be sat on by the wrong people or homeless people or whatever. But, one thing about walkability is you need to have a rest sometime, and there is hardly any seat anywhere. If you look at Victoria Square, New Street, High Street, there is a big gap (IIOC44, Male, 72).

As for now, there is lack of confidence among the older generation towards the local authority's decisions and provision of a walking environment where often older people's needs are being neglected. In general, there was a lack of confidence among the older generation that the provision from the local authority will benefit them and that they will be considered in the planning process:

> The planners, plan. Would they speak to us and ask us what we want, I don't think so, would they? (FG02).

This study believes that the low involvement among older people in the walkable city project in Birmingham City Centre is due to poor communication and engagement between both sets of stakeholders: the professionals and older people. It was reported in this study that the voice of older people has not been heard because there is less of platform for older people to express their needs. The approach that has been used for consultation does not suit older people:

> I don't want a consultation where they want to say we've planned to put this there, this there (IIOC44, Male, 72).

Although some of the participants reported that they do not want to get involved with the consultation process because of their involvement in other activities, there are participants who are willing and keen to get involved as long as they do not have to travel frequently. However the website or email platform for engaging people with the local authority's provision or decisions are not suitable for the current older community. The majority of participants responded that they have limited access to the internet and a limited ability to use computer or smartphone as compared to other groups of people:

> The post is even better than email. Because when you've got a piece of paper, you can look at it carefully (IIOC31, Female, 73).

Older people preferred to have a face-to-face conversation based methods such as focus groups or interviews as a way of expressing their needs. Older people felt more comfortable to talk in person rather having discussion through phone or digital materials.

6.4.2 Walking based events for older people in Birmingham City Centre

Based on the findings some participants claimed that retirement makes them walk more. Participants reported that when they retired, they tend to have more time to spend for walking and joining walking events. However, participants discussed there are limited walking events for older people that have been conducted in the area of the city centre:

> It seems that we have lots of marathon events conducted in the Birmingham City Centre, but it doesn't seem to be enough walking events for the elderly (IIOC12, Male, 66)

A good example of a walking event identified by the participants is the historical walk organised by Birmingham City University. During this event, older people have the opportunity to get to know their city and the history:

> During the heritage week conducted by Birmingham City University, there are often trails around the city centre, and I've taken part in several of those. There was one last year, when we walked around the Five Ways area, looking at building design by John Maiden and sort of 50s architects, which was interesting. It was part of heritage week activities (IIOC43, Female, 74).

Another good example of walking events involving older people is the event hunting owls at Birmingham City Centre. Participants reported that the event is interesting and makes everybody walk and talk to each other including the older people:

> The only one [event] where you notice that people were walking was when they have that big thing last year was it, with the owls. Because all the kids were going around trying to find all the owls. People were talking about it. That became quite an interactive way of people walking and talking to each other, including older people (IIOC32, Male, 68).

This study also found that organisations such as Birmingham 1000 Elderly, the Ramblers and the University of Third Age (U3A) have made good efforts in encouraging older people to walk for their social participation in an urban area. These organisations conducted many walking events for older people, such as the canal walk which is organised by the Ramblers Association. This event brings older people to walk along the canal area towards the city centre:

> I think we once went on a ramble. We belong to the Rambler's Association and a couple of times we went for a walk in Birmingham with them. One of those was the canal walk - you walk along the canal to the city centre (IIOC23, Female, 74)

However, some participants asserted that they do not feel joining walking events would suit them best at this stage of life. Based on their personal preferences, some participants argued that such events are too organised and prefer to enter small activities conducted in their neighbourhood area because the venues were close by and the walking distance not too far:

> The walk for life, but that’s not for me, it's too organised and too far. But you don’t expect people of an age 90 to walk for miles, do you? (IIOC41, Female, 91).

Walkathon, but I have never been on it. Lots of people going very close to where we live (IIOC29, Male, 75).

6.5 Discussion

This chapter discussed the extent to which older people experience Birmingham City Centre as walkable. Prior to the discussion of barriers and challenges in a walkable city, it is important to understand the reasons that makes older people walk in/into Birmingham City Centre. Building on previous literature, this study provides insight that older pedestrians walk in/into the city centre for a purposive type of walking rather than a recreational type of walking. The highlighted reasons include 1) transit or public transportation services, 2) cultural services and activities, 3) selective shopping, and 4) administrative purposes.

Public transportation plays an important role in encouraging and supporting older people to visit and walk in and around the city centre. The majority of participants were happy with the provision of a free bus pass for pensioners. However, some issues with the public transportation system in Birmingham City Centre were identified by participants, which include bus route changes, expensive bus fares and no linkages between the existing train, tram and bus stations. These were found to affect older pedestrians more than other groups of people, in relation to to their specific competencies.

In addition, older pedestrians individual competencies get challenged in the reality and experience of walking in Birmingham City Centre. This study found that factors relating to natural topography (steep slopes, hills and steps), walking paths (uneven

pavement, high kerbs, pedestrian underpasses, poor wayfinding and signposting, and lack of rest facilities), feeling unsafe (heavy traffic, crime, lighting, pollution and cleanliness) and other people's attitudes (younger people, homeless and beggars, people walking using gadgets and crowdedness) form significant environmental press, that challenges and limits older people's walking experiences more than other groups of people. The environmental press listed challenges the physical and social attributes of a walkable city, where a walkable city should offer a safe, comfortable and interesting walk to all, including older pedestrian. As such, the environmental press contributes to spatial injustice for older people.

This study also suggested that experiences of environmental press and the extent to which it is a barrier might differ according to age, gender and health status. Older pedestrians in the 60s and 70s age groups were found to have more competence in walking as they were more fit and independent in walking without any aids as compared to older pedestrians in the 80s and 90s group. The person-environment fit is worse for older pedestrians in their 80s and above as they can endure less environmental press. The majority of those in their 80s and 90s are using walking aids such as sticks. Physical barriers such as high kerbs and uneven pavements are extra environmental press to those with walking aids. Thus, their needs need particular consideration and attention. And in relation to gender, this study highlighted that women reported more issues in carrying bags while walking as compared to men. Women also highlighted the needs of having seating and rest areas more often while walking as compared to men, and they were more worried about walking through underpasses. This is likely because men's strength in older age tends to be somewhat greater, or they may be more unwilling to express vulnerability.

Lastly, this study found that there was low awareness among older people of the walkable city project in Birmingham City Centre, and they were not aware of any involvement of older people in the planning stage of the walkable city project. It is important to acknowledge older pedestrians' needs at the early stage, and most participants would be willing to be consulted, but felt excluded by online consultation methods that have become more common. Postal and face to face methods would work better for them and are likely to suit many older people better. Although there are poor channels of communication and engagement between the professionals and elderly, the majority of participants acknowledge the local authority has responsibility for providing an inclusive walking environment in Birmingham City Centre. Some walking events were identified by the participants as examples of good practice in Birmingham City Centre, including the hunting event for owls and the heritage walk conducted by Birmingham City University. Such events provide opportunity and encourage everyone, including older people, to walk, get active and get to know more about the history of Birmingham City Centre, and helped them to feel included in the city centre.

CHAPTER 7 POLICIES AND PRACTITIONERS' PERSPECTIVES ON PLANNING AND DEVELOPING AN INCLUSIVE WALKING ENVIRONMENT IN BIRMINGHAM CITY CENTRE

7.1 Introduction

In response to the third study objective to investigate to what extent and what ways are the walking needs of older people being considered in the planning of Birmingham's redeveloped City Centre, this chapter will present the findings from the government officials, NGO representatives and policy documents. As mentioned in Chapter 3, Section 3.7, the group of practitioners that were interviewed consisted of government officials and NGO representatives that contribute to the policy making, planning or development of the city centre of Birmingham towards a walkable city and those who contributed to older people's wellbeing projects.

The practitioners' perspective on a walkable city concept is vital because it contributes to the success of the planning and design of the inclusive walking environment (Fletcher, 2006). The inclusion of the human diversity of older people in planning a walking environment will directly or indirectly influence the formation of policy, planning and design interventions that are spatially and socially just for all ages and all abilities (Stafford and Baldwin, 2018).

7.2 Development of Birmingham City Centre: Towards Walkability

Following the decline of industry in Birmingham's economy in the 1970s and 1980s, Birmingham City Council pursued to redevelop the city centre in order to attract new private sector investment and create jobs. The Highbury Initiative, organised by Birmingham City Council and its consultants in 1988, brought together local interest and international expertise to explore new ideas for Birmingham's transformation.

During this time, the city council funded major urban projects aimed at promoting cultural and business tourism as well as a revitalised public realm. A series of new squares, pedestrian spaces, and remodelled streets were among the projects. The City Centre Design Strategy and Quarters Plan, a comprehensive strategy document, was developed in 1990 and led to an initiative that sought to improve city centre connectivity and accessibility, highlighting the need to break the 'concrete collar,' or inner ring road, which prevented economic and physical growth in the city centre. Attempts to address the "concrete collar" were partially successful. As a result, in 1990, the City Centre Design Plan included a proposal to reduce through-traffic and pedestrianize the city centre.

In order to revitalise the urban design as a hub for business tourism, the City Centre Design Strategy (1990) also recommended flagship projects for significant events (such as the International Convention Centre and the National Indoor Arena) and redeveloped city squares (including Broad Street, Victoria Square, Centenary Square, and Brindley Place). The strategy also developed the concept of distinct quarters in the city's

core and identified the prominent characteristics of each quarter so that their uniqueness could be highlighted in new development proposals (see Figure 7.1 below). This strategy was designed to assist the city council in properly focusing development control powers.

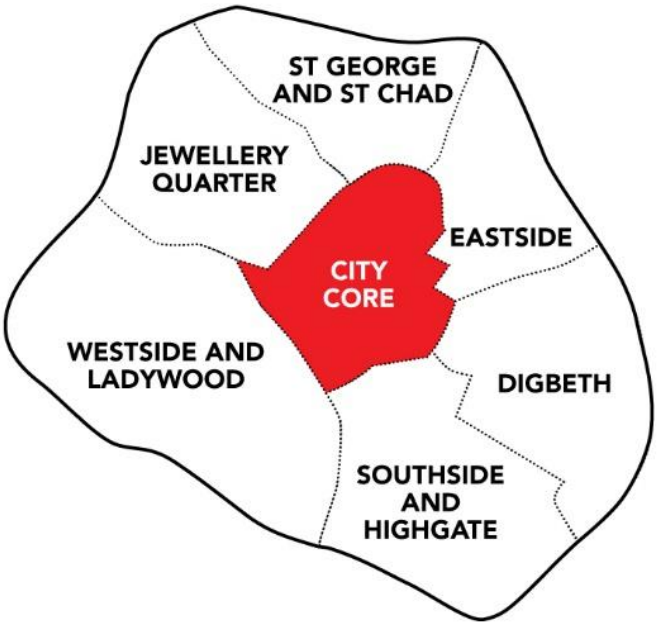


Figure 7.1 The seven quarters of Birmingham City Centre

Source: The Big City Plan - The Quarters: City Core. (Birmingham City Council, 2011c)

In order to set up a foundation of law for planning control in the city, the City Centre Design Strategy was adopted as official extra planning guidelines and integrated into Birmingham's Unitary Development Plan in 1993. The design plan was to increase the development of the core and accessibility of the various neighbourhoods, which were shut off from the Birmingham city centre by the inner ring road or Queensway (known as a concrete collar). There was a restriction on pedestrian access and views between the various neighbourhoods due to the ring road's uneven levelling. Due to their low

pedestrian access and legibility in comparison to the inner centre, the quarters became under-used and poorly maintained.

Through pedestrian crossing points, the Birmingham Renaissance and subsequent initiatives to downgrade the ring road began to reconnect the core and its surrounding quarters. The changes allowed city centre activity to spread into the quarters, which now have direct pedestrian links to the surrounding urban structure, the core area, and between quarters. Much of the original street pattern remains, and street and place names often reveal information about the area's history. The functions of streets, spaces, and land use have evolved over time, particularly in the core area where New Street has been pedestrianised (Corbett, 2010).

The Big City Plan was introduced in September 2010 as a major development plan for Birmingham's future growth, with the goal of shaping and revitalising the city physically, economically, culturally, and creatively. It addresses many aspects of the built environment, including the creation of a well-connected, efficient, and walkable city centre, which is the primary focus of this study. The Big City Plan (Birmingham City Council, 2011b) began to take effect in Birmingham city centre with several improvement projects including 1) Eastside and HS2, 2) Paradise Circus, 3) Birmingham Gateway, 4) Wholesale Markets, 5) Golden Square, and 6) the Library of Birmingham.

The Big City Plan involves a range of studies and background work. However, with regard to the aim to improve connections and transform city centre connectivity, the Big City Plan is supported by two relevant documents:

1. Birmingham City Centre Vision for Movement (2010) which sets the strategy for public transport, pedestrian movement and future use of the highway network across the city centre.
2. Interconnect Birmingham: Vision for a Walkable City (2011a), which supports the creation of a more welcoming and navigable city centre which provides a comfortable environment.

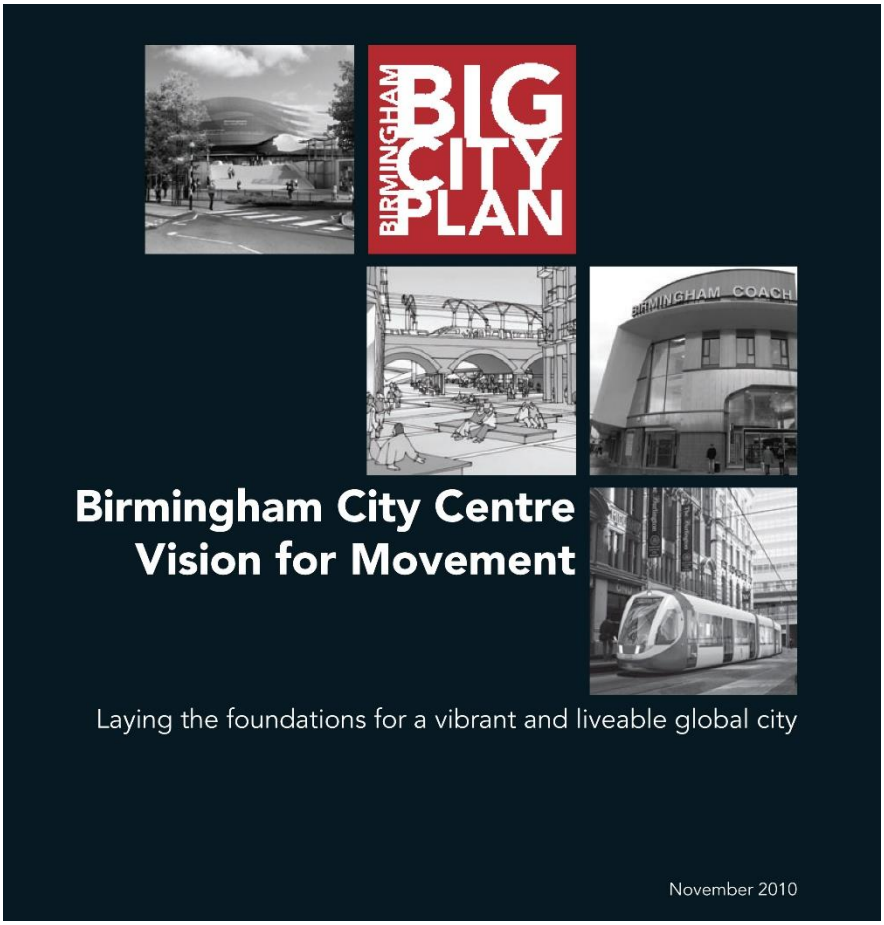


Figure 7.2 Birmingham City Centre Vision for Movement

Source: (Birmingham City Council, 2010)

The Birmingham City Council's 2010 document, Birmingham City Centre Vision for Movement, lays out a 20-year plan to improve connectivity in the city centre. Making

Birmingham a well-connected city, a walkable city, and an efficient city are the three priorities in this vision. The public realm must fulfil this demand for Birmingham to be a walkable city, and it emphasises the necessity to take pedestrians into account when building better links between the major transportation hubs and the city centre (see Figure 7.3 for Birmingham's walkable city planning).

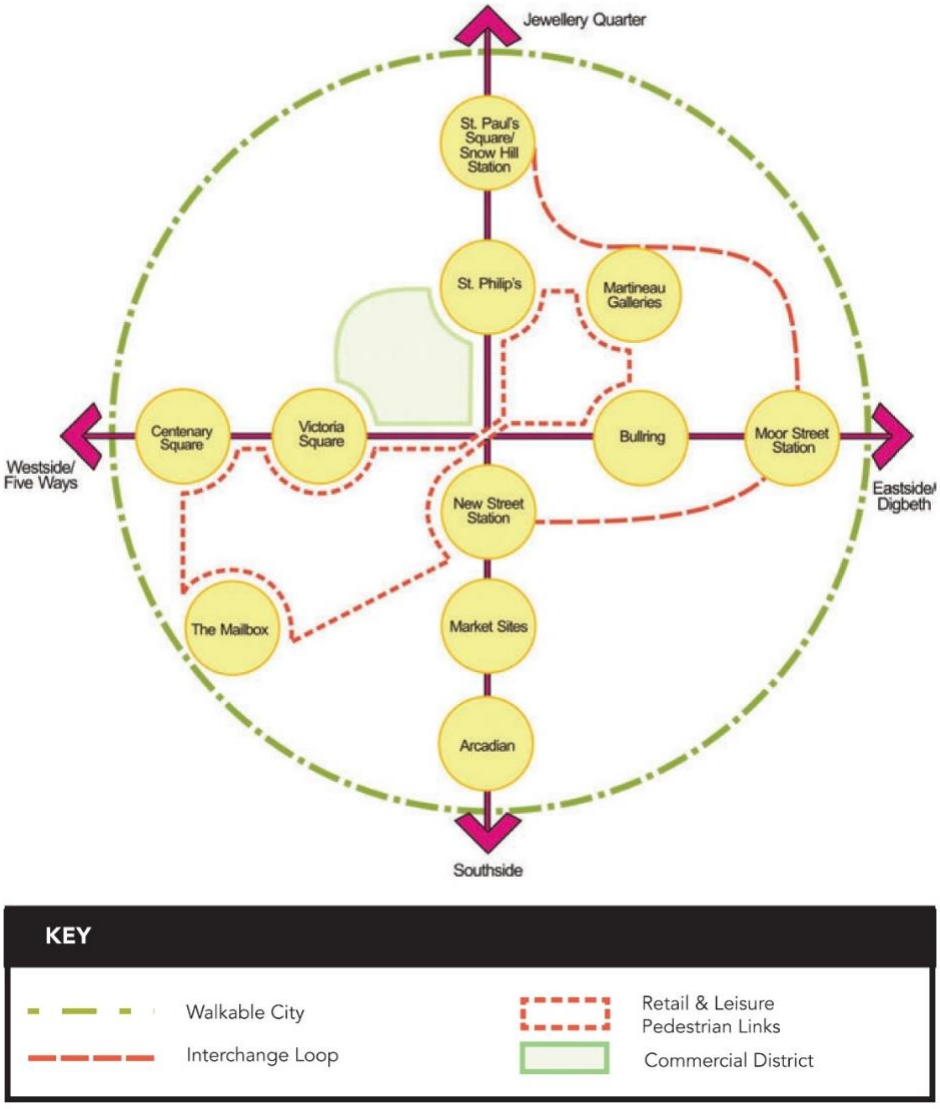


Figure 7.3 Birmingham City Centre, a walkable city

Source: Birmingham City Centre Vision for Movement (Birmingham City Council, 2010, p.10)

With regards to achieving a walkable city, the Birmingham City Centre Vision for Movement aimed to prioritize pedestrians' needs and experience while walking in the city centre. The key objectives are listed in the Figure 7.4 below. Furthermore, the Birmingham City Centre Vision for Movement document also highlighted the needs to provide for older people and people with mobility impairments in designing streets, public spaces and transport interchanges. This has some resonance with the person-environment fit theory, acknowledging that older people might have more limited competency in walking, and could be exposed to environmental press in the city centre area. Although only once, older people are mentioned in the Birmingham City Centre Vision for Movement policy document, indicating that the policy to some extent intended to address and support the walking issues and needs of older people by providing a supportive walking environment (Birmingham City Council, 2010). In addition, provision of necessity for the least advantaged group of people, namely older people, will promote spatial justice in the urban walking environment.

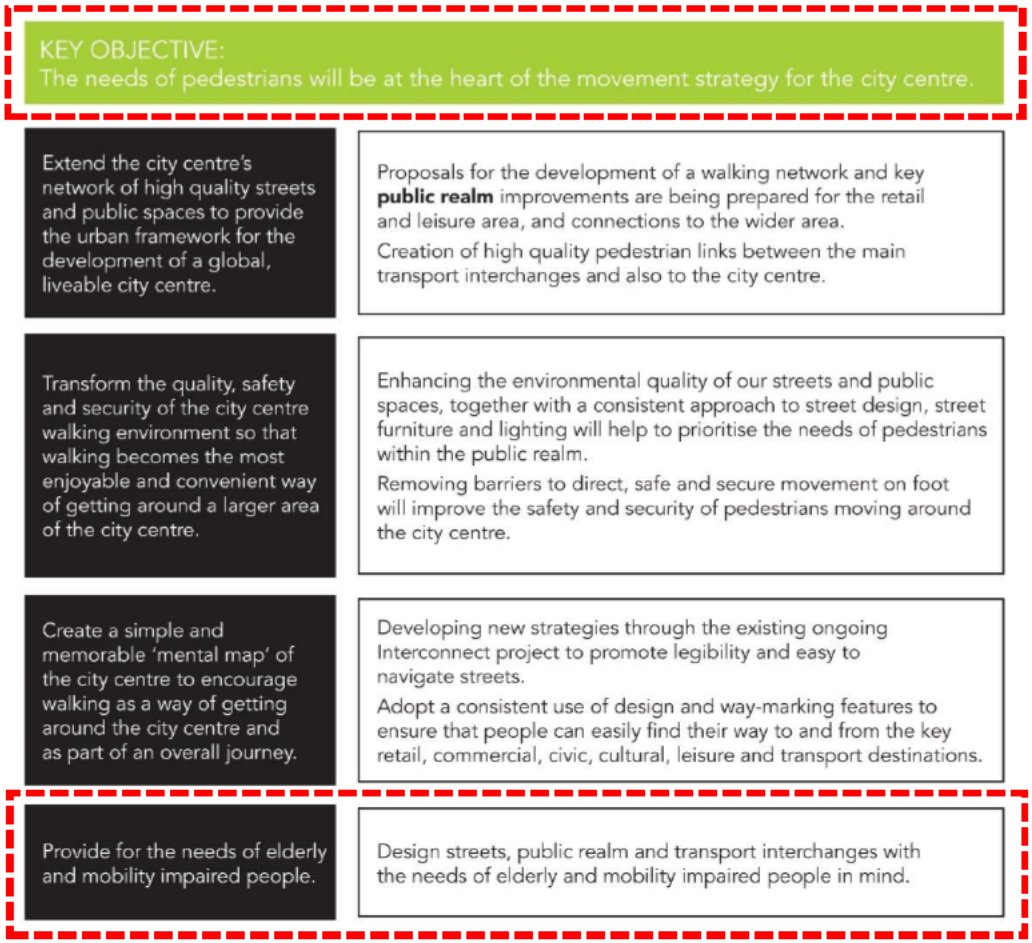


Figure 7.4 The objectives of a walkable city vision

Source: Birmingham City Centre Vision for Movement (Birmingham City Council, 2010, p.11)

Based on the interview with the Development Planning Manager, City Centre Development Team of Birmingham City Council (IP 05), the walkable city project started with the great success of a pedestrianisation project for New Street, which was conceived in the early 90s and finished by the early 2000s. The next achievement was when Birmingham City Council pedestrianised the pathway that linked Brindley Place and the Bullring. Then when the Bullring was redeveloped, the local Birmingham City Council managed to move Moor Street Queensway in order to provide better links through East

Side. Birmingham City Council also worked to improve the pedestrian pathway in the Jewellery Quarter. Thus in the late 2000s, Birmingham City Council thought to refresh the vision for the city centre and decided to commission a plan for the city on what was needed for the next 20 or 30 years. A large part of this process was learning from the experience of pedestrianisation and how positive it had been, hence the integration of a walkable city concept into the Big City Plan was one of the main elements of the vision for the city centre of Birmingham. Alongside the Vision for Movement, Birmingham City Council commissioned a piece of work, called Interconnect Birmingham.

City ID created the strategy document Interconnect Birmingham: Vision for a Walkable City (Birmingham City Council, 2011a) to support the goals and objectives of the Big City Plan. Collaboration with numerous working groups, consultants, and partners, including Marketing Birmingham, Centro, and Advantage West Midlands, was required for the campaign. The Vision for a Walkable City, which outlines the plan for creating a walkable city, has the most important objective in terms of enhancing the pedestrian environment. The ideas presented in Interconnect Birmingham: Vision for a Walkable City offer a framework within which the streetscape of Birmingham's city centre is intended to develop with an emphasis on people, their journeys, interactions, and activities.

The key goals of the Interconnect Birmingham document's vision for a walkable city are to "connect, innovate, re-balance, raise quality, and animate" (Birmingham City Council, 2011a, p. 10). The vision for a walkable city's broader goals concern the local economy, sustainability, residents' and visitors' quality of life, and public health. It is argued that by improving public transportation links, pedestrian and cycling routes,

facilities, and information provision, the vision of a walkable city and other Big City Plan goals can be realised (Birmingham City Council, 2011a).

7.3 What are the features of walkable cities?

A walkable city concept was seen by the practitioners as one of the platforms to highlight pedestrians' voices, issues and needs (Birmingham City Council, 2010). One of the government officials who participated in the research mentioned that historically there has been a gap in their approach when considering the walking experience of the pedestrian at the stage of planning and designing a big city, where the priority is usually been given to the vehicles, buildings and infrastructures.

> When we design a city, we don't design it from the point of view of the pedestrian. We design it for cars, infrastructure or deliveries. We don't think of how it can connect people to another space. So, a walkable city concept will provide a solution for the people to be able to get around the city by walking (IP 07, government official, Head of Birmingham Wellbeing Service at Birmingham City Council).

It was emphasised that a walkable city means a change in emphasis to place walking as a realistic option:

> A walkable city means the infrastructure that is in place enables people to make choices between cars, public transport, or walking (IP 01, government official, Active Travel Officer at Transport for West Midlands).

The majority of the practitioner participants also placed as the biggest concern the requirement that a walkable city should appear to be prioritising pedestrians over vehicles. A walkable city also should be able to minimise the impact of people's integration with vehicles and traffic conflicts by paying due attention to pedestrians' needs

> In the very early 1990s [referring to the city centre of Birmingham], there was a lot of conflict with the buses and cars, where trying to cross streets was very difficult for people (IP 05, government officials).

Most of the practitioner participants emphasised the qualities of connection, legibility with good signage, and being barrier-free, as the features of walkability.

> The definition of a walkable city is around the availability of well-connected walking streets with clear signage (IP 02, government official, Climate Change and Sustainability Manager BCC and Senior Research Fellow, Natural Capital GEES).

> A walkable city is where people can walk freely through it without being hindered, whether that's by street furniture, poorly constructed pavements, or loose pavement stones. And [a walkable city is] also

> connecting people and places, where you can walk quite freely from one area to the next (IP 03, NGO representative, Wellbeing Project Co-Ordinator, Groundwork West Midlands).

One of the representatives from the NGOs, the Development Coordinator at Living Streets (IP 10), argued that a walkable city should consider spatial planning and provision of public space which includes street furniture, wayfinding and route networks in its planning, details of discussion are as listed below;

- spatial planning: making sure trip generators are located within walking distance of each other and residential areas;
- proper provision of appropriately situated street furniture: bins, seating, lighting, signage, visual intrigue;
- proper provision of wayfinding: pedestrian-oriented signage that gives distances and times to critical locations; and
- an essential route network that has safe pedestrian-priority crossings where it meets roads.

The importance of greenspaces and greenery was also highlighted as contributing to walkability. The existence of green pathways or green spaces were found to create an interesting and comfortable walk.

> A walkable city should have accessible pathways, green pathways with parks, or trees, or grass spaces linking the place together to make it a

> more pleasant environment to walk in (IP 03, NGO representative, Wellbeing Project Co-Ordinator, Groundwork West Midlands).

In addition, while discussing about challenges in promoting walking among older people in the Birmingham City Centre, one of the government representatives mentioned green spaces as of the important elements in improving health and social life among older people.

> We have lack of green spaces which is actually important for older people's social life (IP 02, government official, Climate Change and Sustainability Manager BCC and Senior Research Fellow, Natural Capital GEES).

> The greenery could help with anxiety (IP 02, government official, Climate Change and Sustainability Manager BCC and Senior Research Fellow, Natural Capital GEES).

A city that is walkable must be free of barriers, have areas that are safe and appealing for people to explore on foot, and ought to give them a sense of ease. The ability of individuals to move about on foot in a convenient and visible way should be enhanced. This includes guiding people toward routes that are less hilly, for instance, or that offer green and beautiful views, or directing them toward public transportation that may assist them get around. The Interconnect Birmingham document sets out the most detailed vision of the qualities of a

walkable city. According to the document, the qualities of a walkable city include pedestrian space, inclusivity, human scale, mixed-use, design values, visibility, activity, reduced noise and fumes and different climates:

- Pedestrian space: space to walk with ease and comfort with few barriers or obstacles.
- Places to rest and shelter.
- Inclusive: catering for diverse citizens including the mobility impaired, non-native speakers, and newcomers to the city.
- Human scale: Urban design considers the experience from the user's perspective
- Mixed-use: Mixed-use spaces, buildings with active frontages, and a variety of activity throughout day and night.
- Design values: good design values should minimise visual clutter and balance new elements with heritage. Transport information should be readily available.
- Visibility: walkable cities should provide visual clues to enable wayfinding, provide interesting vistas and support safety through visibility.
- Activity: walkable cities provide varied reasons and opportunities to walk and spend time. These can include shopping, eating and meeting, and opportunities for performance can be encouraged.
- Reduced noise and fumes: traffic noise and fumes which are unhealthy and stressful should be minimised
- Climate: a walkable city offers different micro- environments for different needs, such as shade, open and sheltered spaces.

7.4 Walkability in Birmingham

A walkable city has many qualities which benefit the user and the wider city. According to the Interconnect Birmingham: Vision for a Walkable City policy document, there are a number of cities that stand out to visitors as being particularly walkable whether it is New York due to the simple navigation of avenues and streets, or a European capital such as Paris or Vienna for the quality of public spaces and the amount of pedestrianised space (Birmingham City Council, 2011a).

By contrast, Birmingham has several issues which need addressing before it competes as an internationally recognised walkable city. Although there are significant issues which require long-term ambition, there are opportunities which can be taken relatively quickly and economically. The vision provides practical directions for improving walkability and overcoming obstacles and challenges in order to achieve recognition and status as a truly walkable city (Birmingham City Council, 2011a).

According to Interconnect Birmingham, the city's existing walking network has significant limitations where modifications and upgrades are required yet is strong in some parts. In Birmingham's credit, it notes that the area is compact and small compared to other UK cities. It draws attention to the interesting and distinctive pedestrian environment that the canal network has created, as well as some lovely green spaces between St. Paul's Church and Birmingham Cathedral. Additionally, it says that some expansive views and famous structures are helpful for wayfinding because they act as

landmarks. However, the following issues of the existing walking network have been identified as weaknesses.

- A network layout that is difficult to understand for first time and occasional visitors.
- Poor on-street maps and information that don't pay enough attention to the needs of pedestrians
- Unattractive pedestrian routes that face the back of buildings and inactive frontages
- Unpleasant underpasses and footbridges to cross wide roads
- Poorly lit tunnels and covered walkways that feel unsafe
- Uneven surface construction and poor maintenance creating drainage issues and puddling
- Scarce greenspaces and little soft landscaping
- Badly lit and hard to access areas of canal towpaths

Based on one interview with participating NGOs, the Regional Director for the South of England at Living Streets (IP 08), there are shortcomings in the walking environment in the Birmingham City Centre that seems like not suitable for older people or older pedestrian:

- Uneven pavements
- Poor crossing facilities
- No reason to go to city centre if there are facilities for them in their own neighbourhood

- Not enough seating / places to rest
- Short pedestrian phase lights
- No direct access
- Lack of ramps
- Too many stairs
- Pavement width
- Lack of wayfinding information which contributes to a fear of getting lost
- Information on where there are free, clean, public toilets

7.5 Planning a walking environment for older people

7.5.1 The importance of walking for older people

The practitioner participants claimed that walking is one of the activities that can, not entirely but almost universally, be undertaken by everybody. It does not need any specialised equipment, and it is free.

> You don't have to spend money going for a walk. It's certainly a very easy entry level (IP 07, government official).

It is important to encourage everyone to walk, regardless of age, but developing good walking habits in earlier life will help offset the health issues associated with not walking in later life. In line with the previous study (Moor, 2013), the practitioner participants believed that it is important to encourage older people to walk as walking helps older people to stay mobile and healthy which helps to reduce health problems such as obesity, diabetes and hypertension.

> It allows you to raise your heartbeat and all those things that are needed for exercising, which leads to reducing things like heart disease, diabetes, cancer; all of those things can be supported by just a bit of extra walking (IP 03, NGO representative, Wellbeing Project Co-Ordinator, Groundwork West Midlands).

In line to support the active ageing agenda as promoted by the World Health Organization (2002), one of the NGO representatives highlighted that walking is good for older people's mental health and wellbeing as it reduces social isolation which allows older people to maintain independence and social interaction with the wider city; it helps to maintain health and can help offset the effects of dementia (Boyce, 2010).

> The fundamental part of not being able to walk is that it will make a person socially cut off. This means that people will have to rely on others, or your car, to get around. And when people have to rely on others, life becomes less interesting. Once a person is not able to walk somewhere very easily, it's not good for them mentally and physically in the longer term as their activity level will sort of decline. That is why it is important to have the environment to walk in, especially among older people (IP 01, government official, Active Travel Officer at Transport for West Midlands).

The provision for older people in a walking environment influences older people's social participation and ageing life (Novek et al., 2013). As argued by one of the government officials participating in the research (IP 07, Head of Birmingham Wellbeing Service at Birmingham City Council), it is important to design and deliver the right services that are appealing and attractive to older people, because limiting their capacity to walk will lead to social isolation problems. For example, when a person's partner has just died, the first instinct probably would be that he or she would not feel comfortable

going out and walking alone. Thus, the built environment should be able to support and serve people to move around, get engaged and connected.

7.5.2 Defining older people

> An older pedestrian is someone who may be less able or less mobile due to disability and age (IP 11, NGOs representative).

The study findings show that a person's ability to use and walk around an urban area is a product of many different factors, of which age is one. So, it is difficult, therefore, to make a precise definition of an ‘older pedestrian' because walking is necessarily interlinked with physical and mental ability, rather than age per se. However, one of the practitioner participants was reluctant to define older pedestrians as anything other than what an individual would define themselves as, e.g. someone who self-defines as ‘older' about their ability to use urban space.

> I don't think it matters where you draw the line on the population scale as long as there are people in the process of engagement, as long as you hear that voice (IP 02, government official, Climate Change and Sustainability Manager BCC and Senior Research Fellow, Natural Capital GEES).

> Older people are those who're at the pensionable age of 65+ (IP 01, government official, Active Travel Officer at Transport for West Midlands).

Previously, older people are defined as people of pensionable age, during which people tend to resign from work, but now there is a demographic change where people are retiring later because there is no longer a compulsory retirement age. So there seems to be a much broader definition of what could be classified as older people.

> Older pedestrians are classed as 55+ (IP 08, NGO, Regional Director for the South of England at Living Streets).

Based on the findings, it was found that the majority of the practitioner participants were keen to classify older people according to various age standards which will support their working operational definition. According to one of the NGO representatives from the wellbeing department of Groundwork West Midlands (IP 03), the wellbeing service project that she was working on defines older people as 50+ and that often includes people who are still at work but are coming towards the end of their working career and people who are retired. However, the Birmingham Wellbeing Service's government official (IP 07) defined older people as 70+ in their public health operational requirement. So it varies according to different working and job scope requirements.

> Some people define older people like those at the age of 50, but for our public health requirement, it says 70, so it depends on what the initiative is (IP 07, government official, Head of Birmingham Wellbeing Service).

Based on the interview feedback, this study found that some practitioners claimed that it is difficult to use age as a factor dictating design approaches. Rather, some evidence shows that it is more useful to look at what sort of interventions lead to the creation of lifetime places that will be accessible for everyone whatever their age or health status, e.g. dementia friendly, wheelchair accessible, blind and visually impaired accessible, legible, well-lit and safe (IP 10, NGOs, the Development Coordinator at Living Streets)

7.5.3 Including older people in Birmingham City Centre's walkable city

The inclusion of older people in the objectives of the Birmingham City Centre Vision for Movement towards making Birmingham a walkable city is one of the main interests for this study. This study investigates what has been mentioned and stated in the policy and what has been provided to support older people's walkability. The only place of mention is in the fourth objective of the Birmingham City Centre Vision for Movement in creating Birmingham as a walkable city, which is "to provide the needs of elderly and mobility impaired people" (Birmingham City Council, 2010, p.11). The Birmingham City Centre Vision for Movement document also highlighted that there is a call for the designer and planner to consider older people and mobility impaired people in designing streets, the public realm and transport interchanges. Extended from the Birmingham City Centre Vision for Movement policy, the Interconnect Birmingham: Vision for a Walkable City highlights, "user needs should be at the centre of all planning and policy agendas in order to address the balance between walking, public and private transport" (Birmingham City Council, 2011a, p.14). The Interconnect Birmingham: Vision for a Walkable City elaborates more details of walkable city planning.

The Interconnect Birmingham strategy takes into account three different activity categories that may occur in the city centre: necessary activities (such as shopping, working, and moving around the city centre), optional activities (such as sitting, eating, drinking, and leisure activities like watching art, performances, architecture, media, or taking in views and vistas), and social activities (such as playing together and getting together for food, drink, and entertainment) (Birmingham City Council, 2011a). The text points out that although good quality streets and spaces are locations that people utilise for social activities, poor quality streets do not encourage optional or social engagement. However, there is little mention of potential for activities geared toward a particular target population, like older people.

The Interconnect Birmingham: Vision for a Walkable City (2011a) strategy highlights the City Council's goal to minimise restrictions to pedestrian movement and meet the needs of the broadest possible number of users while acknowledging user needs in terms of accessibility, safety, security, and diversity. However, there are several obstacles that users must overcome in order to move around, including physical, sensory, or mental disabilities. Once more, this study discovered that the user requirements analysis report stated in the Interconnect Birmingham policy document does not give any specific indication of different specific sorts of users (which include older people). The emphasis is instead on determining the user's needs based on the different journey types: to routes, through routes, and themed routes (pedestrian) (Birmingham City Council, 2011a, p.70). In addition, the Interconnect Birmingham: Vision for a Walkable City also highlighted that it is also important to recognise that there are people who are not considered to have mobility issues (physical, sensory, or mental disabilities), but who will

encounter restrictions to movement such as people with small children, people carrying bags or people that are unfamiliar with the city (Birmingham City Council, 2011a, p.15).

The Birmingham Project Coordinator at Living Streets highlighted that older people need extra attention while designing the public realm as a walking environment.

> Older people need appropriate crossing times at the pedestrian crossing, wheelchair or mobility scooter access, visible signage, places to sit or rest in safety and good lighting (IP 11, NGO, Birmingham Project Coordinator at Living Streets).

The previous chapter findings (Chapter 6) show that an inclusive walking environment for older people is making sure that there are fewer barriers that would make walking difficult for older people, in recognition of their walking needs and challenges. This is supported by one of the NGO participants, the Councillor at Ladywood Ward, when he says that:

> An inclusive walking environment for older people who are pedestrians is making sure that there aren't any trip hazards, there aren't too many steps and nothing that would discourage or make it difficult for older people (IP 09, Councillor at Ladywood Ward).

Thus, based on the discussion with NGO representative (IP 03, IP 04, IP 08, IP 10 and IP 11) on older people's walking needs, this study gathered a list of design

considerations that according to these representatives, should be given attention in designing an inclusive walking environment for older people. These are:

- A clear designated space to walk
- An easy direct walking route
- A safe and well-lit walking route
- An adequate place to rest
- A clean toilet
- Good public transport links to and from critical areas where older people would want to walk
- Good access for wheelchair or mobility scooter
- Visible signage
- Appropriate crossing times at pedestrian crossings.

This study found that the majority of the NGO representative could list the older people needs in walking environment more easily and in more detail compared to the government officials. For example, in discussion of older people's issues in walking around the city centre, NGO representatives could easily describe the challenges and barriers of walking as compared to the government representatives. The is supported by the information on job scope and background information, which indicated that the NGO representative had more experience in conducting projects or events with older people, compared to the government officials at the time.

The Birmingham City Centre Vision for Movement 2010 is part of the Big City Plan policy. According to one of the NGO representatives, the Birmingham City Centre

Vision for Movement 2010 has a general overview not only of improving access to public transport and walkability but also focusing on motorised vehicle movements. It aims to strengthen links via public transportation, promote sustainable travel and reduce car use within the city centre.

> Back in about 2009, 2010, we had the ambition to make the city centre a more walkable place, for everybody, not just old people. But we realised that it wasn't very easy to get around in the city centre (IP 05, government official).

The majority of the local authorities mentioned that the walking environment in the city centre of Birmingham is improving, firstly, since traffic has been moved out in the 1990s. For example, New Street's pedestrianisation project promotes walkability and makes people feel it is easy to walk around in a pleasant environment. However, with concern to the consideration given to older people in planning and designing a walkable city, there are huge gaps in the provision made by the policymakers where there are limited guidelines to protect older people's needs in the walking environment. This is supported by one of the participants who was a government official, the Principal Transportation Officer at the Transport Policy Team of Birmingham City Council who mentioned that:

> I think I do not know if Birmingham City Council are giving older people enough specific attention. It is perhaps within the new strategy that Birmingham City Council are developing. It is perhaps something

> that we should give more focus to specifically. To ensure that we're putting in measures that are appropriate, which meet older people's needs (IP 06, government official, Principal Transportation Officer, Transport Policy Team of Birmingham City Council).

The availability of public transport has been mentioned by one of the government official participants from the transport department (IP 06) as having a bearing on how much walking older people will do. Although older people might walk in their local area, if they want to travel any distance or come into the city centre, they need public transportation.

As mentioned by the Active Travel Officer at Transport for West Midlands (IP 01), older people received a free transport pass which can be used for buses, rail, and metro (tram) within the region. All of the buses travel into the city of Birmingham, and the West Midlands are serviced by bus companies, generally National Express, or Centro which is an organisation that covers the West Midlands. In addition, Transport for West Midlands is also working with rail operators, such as Virgin Trains, for assisted journeys. Provision is made so that people with Alzheimer's and dementia are reminded of their destination and that they are assisted from the train into the station, in order that they can make their onward journey. Also there is assistance on the train in that a member of staff is willing to tap the passenger with special needs on the shoulder and advise them of where they need to get off and provide assistance.

> We do have travel information centres where the staff there are trained to give out information about transport or maps (IP 01,

> government officials, Active Travel Officer, Transport for West Midlands).

However, it was also that case that some interviewees questioned the extent to which older people should be considered in city centre planning. The interview with the Head of Birmingham Wellbeing Service at Birmingham City Council, revealed his viewpoint of Birmingham city centre. He argued that the priority of the infrastructure in the city centre of Birmingham is not designed for older people to walk around. He felt that the infrastructures provided in the city centre of Birmingham were more oriented towards retail and economic aspects.

> The local authority does not create a purpose for older people to come to the city centre; if people are beyond walking and their retail requirements are less, what would be their purpose in the city centre? They might be doing some leisure activity. The only reason they come is that of the theatre, shopping centre or library, but even the library is not so welcoming for older people (IP 07, government official, Head of Birmingham Wellbeing Service, Birmingham City Council).

> I am not surprised if older people find the city centre is not for them. The city centre does not do things that interests or involves them. And I am also not very sure whether it is important for older people to get engaged with the city centre. I think what's important is to start connecting with the people where older people live (IP 07, government official, Head of Birmingham Wellbeing Service, Birmingham City Council).

7.6 Challenges in planning an inclusive urban walking environment: Birmingham City Centre

> It's always more challenging to adapt an existing city to modern transport and modern needs than it is to start from scratch (IP 09, government officials).

The Equality Act (2010) makes provision for reasonable adjustments to be made; it is compulsory for a local authority to make the necessary changes to the policy, built environment or services that can improve the walking environment for the less able and potential users, including older people. However, the first challenges in implementing changes for creating an inclusive walking environment in the city centre of Birmingham involved the cost. Although reasonable adjustments have been regulated since 2010, the costs involved in making the required changes have become the biggest challenges for most service providers, including Birmingham City Council as the local authority.

The study findings reported that there is a need for balance between inclusivity and cost in creating an inclusive walking environment. Inclusivity and cost will be influenced by which is more reasonable to fulfil in reality. For example, one of the government officials who participated in the study mentioned that the provision of dropped curbs at the pedestrian walkway in the city centre of Birmingham are considered as reasonable provision because they involve lower costs as compared to installing a lift, which is considered as rather more challenging to fulfil.

> It’s what's reasonable and what's cost-effective (IP 09, government official, Councillor at Ladywood Ward).

According to one of the participating NGOs, the Regional Director for the South of England at Living Streets (IP 08), Birmingham City Council has a strategic role to ensure support from such groups as Ageing Better Birmingham, Adult Social Care, Walking charities that support led walks, GPs and physio, Walkable Birmingham Group, Public Health England and the WMCA Mayor. All these can deliver support and make sure the planning and infrastructure for older people are in place. However, it was reported that the critical challenge is to get funding.

It is reported that the local authority do have an equality assessment process through the Equality Impact Assessment (EIA) in the planning process, which considers the needs of the least advantaged groups such as older people. However, the Principal Transportation Officer of the Transport Policy Team at Birmingham City Council mentioned that one of the biggest challenges for the local authority in improving walkability for older people in the city centre of Birmingham is to make sure the slopes around the city centre are gentle enough for older people in particular and people with wheelchairs or pushchairs.

> Part of the detailed design will be about making sure those sort of ramps, hills and steps, meet the standards for access for older people. The street, slopes and ramps will have to be appropriate, to make sure that people can get through that space, so they would be suitable for

> everybody to use. That is where we are trying to improve the walking environment in the streets (IP 05, government official, Development Planning Manager, City Centre Development Team at Birmingham City Council).

The issue of uneven and slippery pavements around the city centre of Birmingham affect users' walking experiences, particularly for older people. According to one of the government officials participating in this study, the Development Planning Manager of City Centre Development Team at Birmingham City Council (IP 05), there are areas of the city centre where the pavement materials are almost 30 years old; they are starting to wear out and should be replaced.

> The local authority has a minimum standard to meet to make sure that the pavement is safe to walk on, and there are surveys done every so often, to make sure that the surfaces are level, and are not pooling water (IP 05, government official, Development Planning Manager of City Centre Development Team, Birmingham City Council).

In addition, the decision to close public toilets and reduce funding for public seating has made older people's walking experiences more complicated. This is because older people need to use toilets and seating more frequently compared to other groups of people (Mackett, 2015).

> It is because [referring to decision to cut funding for public toilets] the city council does not have a legal duty to provide the public toilet (IP 05, government official).

Based on the interview with the Development Planning Manager of the City Centre Development Team at Birmingham City Council (IP 05), public toilets are very expensive to provide, to keep and to maintain, and maintenance becomes more difficult when people are taking drugs and filling the toilet system with needles etc. Thus, a few years ago, the city council took the decision not to maintain any stand-alone public toilets any longer. However, in big buildings such as the Bullring, Grand Central, the Library and the Convention Centre, there are public toilets provided for people to access, including older people.

Finally, it is crucial for representatives of older people to become involved from the beginning of the city planning decision-making process. The majority of the practitioner participants claimed that consultation and public engagement are important because the outcomes and ideas would help the policymakers and the decision makers to acknowledge and understand user perspectives. One of the government officials, a Councillor at Ladywood Ward (IP 09) mentioned that consultation and public engagement are about people making key decisions, making sure that the local authority consults with those agencies that represent particular groups. So the local authority will consult with the public through consultation with specialist groups that represent a group of people.

For example, in the case of the planning and design of an inclusive walking environment for older people, the local authority can consult an organisation that represents older people, such as Age UK or AGE Concern, on a particular project, and ask the representative if there is anything that the local authority could do that would assist people with a particular walking limitation. So the consultation is not directly with the public, but with agencies and institutions that have specialist knowledge about those specific groups.

> I think it is really important that walking environments are connecting communities in a way that they want to be connected. I think the local authority can come up with the talk, and we need to do this bottom-up and to be working with the community closely (IP 07, government official, Head of Birmingham Wellbeing Service, Birmingham City Council).

However, one issue that has been highlighted by one of the government official representatives (IP 06) is that a large amount of the consultation and public engagement process was carried out online. As highlighted by older people in the previous chapter, the online materials for consultation and public engagement are less accessible by older people as getting online is not something that many old people are familiar with and confident about.

> One of the things we have found is that a lot of journey planning is done through apps or online. Quite a lot of older people do not access

materials like that online, and they prefer traditional face-to-face communication or physical maps (IP 01, government official, Active Travel Officer, Transport for West Midlands).

7.7 Discussion

In summary, the compilation of policy papers related to the planning and development of a walkable city has paid little consideration to older people. The Birmingham City Centre Vision for Movement (2010) highlighted a sub-objective relating to the inclusion of older people, where the requirements of older people and people with mobility impairments should have been taken into consideration when preparing street design, public space, and transportation interchanges. This study essentially suggests that these three physical factors are essential to supporting older people's walkability. This is therefore a positive inclusion, but it could be more developed with regard to the specific needs of older people. The Interconnect Birmingham: Vision for a Walkable City document gives a good and quite comprehensive list of the features of a walkable city. Similarly, if these were present then the walking environment would be quite inclusive for older people, although the document does not mention older people or consider their needs specifically. Despite this acknowledgement of the physical characteristics of walkable cities, which as discussed would be relevant to older people's inclusion, awareness of the social dimensions is what the policy and provision currently lack. Information and understanding on the social attributes for older pedestrian such as older people's decision to walk and purpose to come to the city centre, and their dynamics with other users of the city centre, are notably missing from consideration in any policy documents up to the time of this study.

Secondly, this study found that understanding on older people's needs in walkability are higher among the NGOs as compared to the local government

representatives. According to the interview sessions with both the NGO and the government official representatives that have been conducted during the data collection period (Dec 2016-June 2017), the NGOs are more committed and informed as compared to the government officials. This is happening due to the nature of their work, where the NGOs work more closely with older people compared to the government official's representatives, and are more familiar with their day to day experiences.

This study also highlighted that online consultation and public engagement are not suitable for older people groups as they are not very familiar and confident with that. Older people generally also need a bigger font and materials as their vision is often not so good. The best consultation and public engagement with older people is through group or individual interviews as they prefer to talk in-person and the majority of them are pensioners, which means they generally have time to contribute and are available in normal working hours.

Lastly, in the planning stage, this study found that it is important that practitioners have an understanding of older pedestrian's needs and include older people in the city planning stage. Through the interviews with one of the government official representatives (IP 07, government official, Head of Birmingham Wellbeing Service at Birmingham City Council), it was mentioned that there is perhaps less need for older people to visit the city centre, because the provision for older people's needs has been catered for within the boundary of the neighbourhood or retirement village area. This can be seen as a way to exclude older people from coming to the city centre, and walking in or into the city centre.

The provision for the needs of older pedestrians walking in or into the city centre starts from their neighbourhood area. The planning and developing of a walkable city should not only focus on the provision of physical attributes, but also start from the zoning and activities planning stage, where what attracts older pedestrians to come and walk around the city centre is being included. It should also be fully acknowledged that older people have a need and a right to access services and the public realm that are often only available in the city centre, such as administrative and cultural services.

CHAPTER 8 DISCUSSION AND CONCLUSION

8.1 Introduction

The broad aim of this study is to investigate the extent to which the redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people. The study has discussed the perceptions and expectations of older people towards walking and a walkable city concept, experiences of older people walking in a planned, walkable urban environment (a walkable city) and investigates whether the provision of the built environment for walking in the city centre of Birmingham promotes spatial justice for older people in its planning and development. The aim of the study was supported through the following research questions:

1. RQ 1: What are older people's perceptions of walking, and what do they expect from a walkable city?
2. RQ 2: To what extent do older people experience Birmingham City Centre as walkable?
3. RQ 3: To what extent and in what ways are the walking needs of older people considered in the planning of Birmingham's redeveloped City Centre?
4. RQ 4: To what extent does the planning of Birmingham City Centre as a walkable city promote spatial justice for older people?

The aim of this study relates to the global need to support the quality of ageing living (Draper and McHale, 2014) and to promote an inclusive walking environment through

urban planning. In addressing the research aim and research questions above, this study has drawn together elements of literature within the fields of ageing, urban planning and spatial justice.

This research has a variety of findings which are relevant from both practical and theoretical perspectives. This chapter aims to draw a concluding discussion of the empirical evidence in Section 8.2 in answer to the research questions. Sections 8.3 present theoretical contributions and policy implications, respectively. Section 8.4 suggests future opportunities for research.

8.2 Answering the Research Questions

8.2.1 What are older people's perceptions of walking, and what do they expect from a walkable city?

The first research question is one of the interesting issues to be investigated in this study. Before discussing about older people's issues related to walkability, it is important to understand what are the perceptions and expectations of older people towards walking and the walkable city concept itself. Regarding the first part of the research question one, the findings from Chapter 5 reveal three main themes of older people's perceptions towards walking: 1) health and physical well-being, 2) social participation, and 3) sense of place. From the perspectives of older people, walking helps in terms of these three themes.

This study has defined the inclusive walking environment as a built environment that enables older people to walk, and be connected to people and places equally, confidently and independently. Although study found that older people walk in or into the city centre for a purposive walk, older people should not be excluded from walking in or into the city centre if they want to. In the case of older people, the purpose of the walking determines the destination of the walk (Chudyk et al., 2014). Older people need to have a reason to walk in or into the city centre such as the need for facilities and services provided in the city centre – banks, administrative matters or cultural events.

It is also interesting to know that older people walked more after they had retired as compared to during their working life. Thus, this study found that due to the lifestyle changes of this particular population of this study, the time spent on walking increases as their age increases. Older people have more freedom and flexibility in terms of time and routine in than in previous decades.

Furthermore, the study findings also reported that older people perceived walking as essential in enhancing their sense of wellbeing, sense of independence, sense of belonging and social interaction. The importance of walking is found not only beneficial to older people's general health, but also towards the holistic quality of ageing life. Older people claimed that walking is good as a form of exercise that is crucial for their general health. Walking helps in preventing loneliness and social isolation among older people as it gets them out from their home and has the potential to create social interactions. As discussed in previous literature (Goll et al., 2015; Goll, 2014), along the ageing process the tendency to become lonely is higher due to reduced social integration and increased incidence of physical and mental disability associated with age.

With regard to the second part of the research question one, the expectations of older people towards the walkable city concept, Chapter 5 discussed five main themes which include: 1) prioritised travel on foot, 2) supportive built environment, 3) reasons to walk, 4) greenery and views, and 5) integration of public transportation. In addition, older people also highlighted good examples of walkable cities that they had experienced, in the UK, Europe and further afield. Among European cities, Amsterdam, Paris, Scandinavian cities, Barcelona and Venice have been highlighted as good examples of walkable cities for reasons including: 1) flat area, 2) green spaces, 3) lively and social

streets, and 4) accessibility. For United Kingdom cities, London, Stratford-upon-Avon, Bristol, Edinburgh and Dudley have been mentioned as examples of good practice of walkable cities for four reasons: 1) less traffic / safe crossing, 2) historical attractions, 3) green spaces, and 4) less crowded.

This study found that the majority of older people are not aware of the term 'walkable city'. However, the majority of them are familiar with the term 'pedestrianisation', which means segregation between walking and vehicular transport, but at the same time recognise the importance of public transportation in supporting their walking journey. However, the term of a walkable city has a broader meaning than just pedestrianisation.

This study believes that awareness of older people's perceptions of and preferences for a walkable city are essential for designing and planning an inclusive walking environment. The implementation of a walkable city concept in the design and planning stage of a city centre involves a great amount of commitment, investment and collaboration from various stakeholders (Keesmaat, 2013). Thus, it is crucial so that everyone, including older people, can make full access of the city centre.

8.2.2 To what extent do older people experience Birmingham City Centre as walkable?

In answering the second research question, this study has analyzed the findings from older people experiences walking specifically in or into Birmingham City Centre. The question

arose from the development that the city centre area of Birmingham was the focus of a walkable city project (Birmingham City Council, 2010). Furthermore, as a walkable city concept claimed to support social equality and sustainability (Living Streets, 2018), it raised the question of to what extent older people find Birmingham City Centre walkable?

Unfortunately, the empirical evidence from the focus group discussions and the semi-structured interviews revealed that the majority of the participants were not aware of the walkable city project in Birmingham City Centre. As discussed earlier, it was found that majority of older people were not aware of the term 'walkable city' and when the discussion turned specifically to the walkable city project happening in the Birmingham City Centre in the Chapter 6, once again, the majority of the participants claimed that they were not aware of the on-going walkable city project.

The Person-Environment Fit Fit theory helps to understand why older people may have specific needs and need careful consideration in planning and designing a walkable city. The relation between individual competency and environmental press will determine whether the city is experienced as walkable and whether older people will stay mobile within the city centre and will access the city centre. Thus the Person-Environment Fit is a matter of spatial justice.

Expanding consideration to the existing studies on physical barriers to walking among older people (Rosenberg et al., 2013; Eronen et al., 2014; Day, 2010a) this study identified barriers, or types of environmental press, that affect a positive walking experience among older people in Birmingham city centre. These include topography, physical barriers in walking paths, feeling unsafe and other people's attitudes (see Chapter

6). First, the analysis has shown that walking in an urban setting with undulating surfaces (topography) was perceived as uncomfortable, and unsafe by research participants. Conversely, walking in a flat setting had a positive response and was associated with perceptions of comfort,. This finding provides support for previous literature that found facilitates in flat areas attracted and encouraged older people to walk more than in hilly areas (Day, 2008a; Rosenberg et al., 2013). Participants understood that natural topography had to be worked with, but they generally disliked stairs, and had problems with slopes or ramps that were too steep, especially where there were no handrails.

Second, physical barriers in walking paths which include uneven pavements, high kerbs, poorly lit underpasses, poor signposting, and lack of rest areas negatively affected walking experience. The negative experience with walking path issues is consistent with previous studies that assessed walkability among older people (Sohn et al., 2012; Duncan et al., 2011; Talen and Koschinsky, 2013). However, most previous literature focused on the neighbourhood setting, while this research extends the focus to address older people's walking experience in a city centre.

Third, feeling safe or unsafe is affected by traffic, crime or perceived crime, poor lighting, pollution and cleanliness issues. Older people are more vulnerable especially in terms of feeling safe as they can endure less environmental press. This study found that safety concerns were quite high for older people and especially for women while walking alone, as their ability to run, deflect attacks or defend themselves in the environmental press are limited.

Lastly, the study findings confirmed that it is not easy for older people to handle the noisy groups of (mostly younger) people, people who walk with gadgets, and people in crowds while walking in and within the city centre of Birmingham. They were also upset by the presence of homeless and beggars, though not necessarily threatened. This study has shown that the social environment and people's attitudes and behaviours affected older people's walking experience and the older participants felt unsafe and uncomfortable when faced with these issues relating to other people's use of the space.

Through this study, it is suggested that the attributes of a walkable city from the perspective of older people and their experience of shortcomings in Birmingham city centre are more or less shared, but for some individuals the needs are greater than others. This means that the barriers were greater if these attributes were not present. As for example, the environmental press of topography such as slopes and hills are more challenging for people with lower competencies such as older women in their 80s and 90s and older people with walking aids, who found it harder to use stairs and also to manage handrails as well as their aids. Older women also apparently had a greater need for rest areas to be placed more frequently. As a result of higher environmental press, people with lower competency, such as those with lower strength and with greater mobility issues, will less able to walk in or into the city centre, and they are less likely then to access the city centre. In this way, the environmental press will contribute to the exclusion of older people with lower competencies walking in or into the city centre.

This study reveals that the expectations and experiences among older people walking in Birmingham city centre are not well aligned. For instance, the analysis found that the expectation of traffic reduction in a walkable city contributed to a positive walking

intention and the environment being perceived as safe and comfortable by the participant. However within the city centre of Birmingham, heavy and fast vehicle traffic was perceived as unsafe and dangerous by the participants. This finding is in line with the studies of Rantakokko (2017) and Dunbar (2004) that assessed the effect of heavy traffic on older people's walking experience and found it will restrict older people walking more than others. Thus, there is a a potential claim for justice, for Birmingham city centre to be designed more in line with the needs of older people in a walkable city.

This study also suggests that providing for the fundamental needs of older people, especially; 1) older women in their 80s and 90s, and 2) older people with walking aids, in planning and developing a walkable city will allow the rest of the population still to enjoy the comfortable, safe, interesting and purporsive walk. Through provision of the physical attributes that are suitable for older pedestrians' competency, the environmental press in a the city centre area can be reduced, which will be helpful not only for older people, but also potentially for other groups with mobility constraints such as pregnant women or people carrying heavy baggage.

~~The findings of this study provide support for the view that older people walk the city centre of Birmingham streets for limited reasons. The majority of the older people who participated in the study felt that they do not belong in the city centre and do not have any purpose for walking into the city centre.~~

8.2.3 To what extent and in what ways are the walking needs of older people considered in the planning of Birmingham's redeveloped City Centre?

Chapter 7 presented the policies and practitioners' perspectives of a walkable city concept, the provision for older people in planning the walkable city centre of Birmingham and the challenges faced by the practitioners at the planning and implementation stages. Harvey (2008) defined the theory of a right to the city, as the power for people to shape their living environments according to their preferences and needs. Thus, having a position with power to plan and design a walkable city is a means and a responsibility to improve the city for people's preferences and needs, to achieve spatial justice. A walkable city concept is seen by the government practitioners as one of the platforms to highlight pedestrians' voices, issues and needs which have been given less attention by planners and designers in earlier times. This study found gaps in the consideration given to the least advantaged group of pedestrians, namely older people, in the planning process of a big city where the priority has usually been given to the vehicles, buildings and infrastructures.

The practitioners' understanding of a walkable city concept in general terms was found to have good parallel with existing concepts from Southworth (2005) where the supportive built environment elements such as wayfinding, route networks, safety and appropriate street furniture need to be provided in order to support people to walk. The policy documents of Birmingham City Centre Vision For Movement (Birmingham City Council, 2010) and Interconnect Birmingham: A Vision For A Walkable City (Birmingham City Council, 2011a) are the essential documents in setting out the principles for designing the city centre of Birmingham a walkable city. Referring to the production of space theory (Lefebvre, 1974b), planning and designing a walkable city, is a form of creating a representation of space with the engagement of all the practitioners such as planners, designers and policy makers. The aims of the policies are to strengthen

links via public transportation, promote sustainable travel and reduce car use within Birmingham City Centre. The fourth objective in creating Birmingham as a walkable city mentioned in the Birmingham City Centre Vision For Movement document is “to provide for the needs of elderly and mobility impaired people” (Birmingham City Council, 2010, p.11). This is welcome recognitin of older people’s needs but is not developed further in this document.

The Interconnect Birmingham: Vision for a Walkable City (2011a) document which builds on the Birmingham City Centre Vision for Movement, sets down the attributes of a walkable city. These are listed under the categories of pedestrian space, inclusive, human scale, mixed use, design values, visibility, activity, noise and fumes, and climate. The attributes highlighted in the policy were found to be comprehensive in a general sense, and compared to theory, but the document does not specifically mention older people. However, the policies do mention mobility impaired people, which might to some extent address the needs of older people.

According to the NGO practitioners’ perspectives highlighted in Chapter 7, in specifically referring to older people needs, a walkable city should consider: 1) a clearly designated space to walk, 2) an easy direct walking route, 3) a safe and well-lit walking route, 4) an adequate place to rest, 5) a clean toilet, 6) good public transport links to and from critical areas where older people would want to walk, 7) good access for wheelchair or mobility scooter, 8) visible signage and 9) appropriate crossing times at pedestrian crossings, for older pedestrians. This study found that the NGOs representatives are more informative in listing the attributes of a walkable city that relates to older people, compared to the local government representatives. This arises from their greater focus on

the everyday lives of older people. As such, they would be important and valuable consultees in urban design projects with walkability in mind. Meanwhile, older people highlighted attributes of a walkable city includes; 1) prioritised travel on foot, 2) a supportive walking environment including lack of barriers, places to rest and toilets, 3) reasons to walk, 4) greenery and views, and 5) integration of public transport. Overall, the attributes of a walkable city mentioned by the older person participants resonated well with the practitioner perspectives, with more detail given by the NGO representatives than the local government representatives and policy documents, as discussed. However the older person participants also mentioned the social environment and the behaviour and attitudes of other people. This was a dimension that was not discussed in policy or by the practitioner interviewees, who focused only on the physical attributes of a walkable city.

Thus, this study suggests that the physical attributes of a walkable city based on the 1) theory from scholars, 2) expectations from older people, and 3) planning visions from the policies and practitioners in planning and developing a walkable city are broadly in line with each other. However, there are some gaps between this and the actual experience of older pedestrians in Birmingham city centre, due to differences in older pedestrian's competencies and also practitioners' competencies in implementing the policies. According to the empirical findings in answering Research Question 2, this study reveals that older people are facing environmental press at a level that is uncomfortable for their competencies, and experiencing barriers and challenges in walking. The physical barriers includes; 1) natural topography (steep slopes, hills and steps), 2) walking paths (uneven pavement, high kerbs, pedestrian underpasses, poor wayfinding and signposting, and lack of rest facilities), 3) feeling unsafe (heavy traffic, crime, lighting, pollution and

cleanliness) and 4) other people's attitudes (younger people, homeless and beggars, people walking using gadgets and crowdedness). This level of environmental press results in sub-optimal person-environment fit for many older people, with the outcome that they are less likely to use the city centre, or have a more difficult experience when they do.

This study also found gaps in the policy and practitioners perspective, where attention is given sonly to the physical attributes of a walkable city. As argued by Lefebvre (1974) that space is socially produced, this study suggests that attention also needs to be given to the more social attributes of a walkable city for older people. This includes older people's decisions to walk and purpose to come to the city centre (representational space of older people) and their interactons with the behaviours of others in that space (spatial practices). These aspects are important as they are key to understanding why older people do or don't walk in or into the designated walkable city, and how to encourage their involvement in the city centre.

This study also found some ambivalence in practitioners' perspectives on the importance of considering older people in the design of the city centre. At least one interviewee expressed the view that older people have less need than others to visit the city centre and their needs should be catered for within their local neighbourhood. This view is out of line with the fundamental principle taken by this study that older people have rights to the city centre, and should not be excluded from visiting or walking to or in the city centre.

Consultation and public engagement with older people also need to be improved, as in current practice, at the time of the research, the local authority preferred to consult

agencies rather than meeting older people in-person for any data collection. Also, the majority of any public consultation or engagement process was conducted online, which will exclude many older people who are more generally prone to digital exclusion (Hennessy, 2014), as they are not familiar and confident with accessing online materials and platforms for consultation and public engagement purposes. Instead, the local authority and consultants should be prepared to offer accessible, in-person engagement opportunities for older people, as well as engaging NGOs who work with older people and have been shown to have a detailed understanding of their needs.

8.2.4 To what extent does the planning of Birmingham City Centre as a walkable city promote spatial justice for older people?

> "Thinking spatially about justice can uncover significant new insights that extend our practical knowledge into more effective actions to achieve greater justice and democracy" (Soja, 2009, p.1).

In answering Research Question 4, this study adopted theories of justice; production of space, right to the city and spatial justice, theory of walkable city and theory of person-environment fit in unpacking how far a redeveloped city centre of Birmingham embodies a walkable environment and spatial justice for older people. According to the spatial justice theory, spatial claims or right to be for older people in a city (centre) means the ability to remain in the city, to avoid forced displacement (Soja, 2010). Gaining the freedom to be in a city centre as older people is one of the ways in which the spatial is being negotiated. Everyone, including older people, has the right to be involved in and not be excluded from the places where daily life takes place, like the city centre (Lefebvre, 1996). This includes the ability to walk in a city centre. In modern capitalist societies, ownership (of space and resources) is considered the dominant spatial claim, often at the expense of the least advantaged group, namely older people.

Through the person-environment fit theory, it can be understood that the environmental press of extreme topography, lack of public amenities, feeling unsafe and other people's attitudes have challenged older people's competency to walk in or into Birmingham City Centre. Their ability to be or to walk in the city centre is challenged by

the improper provision of the walking built environment (physical attributes) and human attitudes (social attributes).

As mentioned in answering research question 3, the policy documents related to planning and designing Birmingham City Centre as a walkable city; the Birmingham City Centre Vision for Movement (2010) and the Interconnect Birmingham: Vision for a Walkable City (2011a), are good examples of representations of space production (Lefebvre, 1974b). The contribution of the practitioners including planners, designers, NGOs, local authorities in preparing guidelines and policies for a walkable city in Birmingham City Centre deserved credit. However, in terms of the implementation stage, on the ground reality, there are still gaps for older people or older pedestrians. The spatial practice of the practitioners and of other users of the space makes the representational space of older people lived experience of space in the Birmingham City Centre sub-optimal, to the extent that sometimes they are excluded from the production of space in the city centre.

In order to negotiate spatial claims, the practitioners must identify ways to provide public amenities, create a sense of comfort, safety and freedom of movement for all community members, including older people. This study also suggests that there are needs for the practitioners to consult older people or older pedestrian and draw their perspectives into the representations of space, and the spatial practice.

8.3 Research Contributions

8.3.1 Theoritical contributions

Contributions to theories of spatial and social justice in urban planning

This study offers new theoretical perspectives on research on spatial justice in urban planning. First, this research confirmed the ideas of Lefebvre (Lefebvre, 1974b) and Soja (2010) on the concept of production of space. In several works, Lefebre and Soja claimed that space is socially produced and continuously changing as an impact from social, political, economic and geographical activities. This study contributed to providing theoretical support that a successful walkable city or walking environment is a space that is socially produced through social inclusion, engagement and participation in the stage of policymaking, regulating and implementation. Second, existing spatial justice theories are limited to the concerns of conceptual and theoretical geography (Pirie, 1983; Soja, 2009, 2010) but less in spatial planning recommendations. Thus, this study contributes to suggest urban design recommendations for a walkable city.

Contributions to person-environment fit theory

Previously, the person-environment fit theory has mostly been used in ageing or gerontology fields of study with less connection with urban planning. In this study, the person-environment fit theory has been extended to the urban planning field where older

people's competencies in walking has been investigated in the context of the environmental press of a city centre that is aiming to be a walkable city. The list of environmental press that has been highlighted in Chapter 6 on older peoples' walking barriers and challenges in Birmingham City Centre helps to understand older pedestrians' walking needs for a good person-environment fit, especially in the context of a city centre.

Contributions to theories of inclusive walking environments

This study offers new perspectives on urban planning related to the walking environment in an urban setting specifically for older people. The idea of an inclusive walking environment is about making places in which everyone can walk (Fletcher, 2006). This study contributes to the body of knowledge about the inclusion of older people in an urban setting's walking environment through urban planning and design. This study has provided empirical support to the theory of a walkable city and extended its focus to the inclusion of older people's walking needs.

8.3.2 Policy and practice implications

Several policy implications are identified. These are relevant for urban design and planning policies to increase urban walking and participation among older people in an urban setting.

The needs of older people are often overlooked, and older people can be particularly excluded through fears of personal security. Facilities which have been suggested through consultation include seating, toilets and attractive areas to sit. Safety is a key issue. The quality of the environment is paramount alongside cleanliness. The provision of guided walks is a positive measure to involve this user group. This is a demographic sector that is growing nationally and, therefore, provision will be increasingly important.

This study concludes that a broad range of interrelated interventions can do much to improve the walkable city centre for older people. This study calls on governments and city authorities to consider particular recommendations for; 1) vehicles and walking facilities, 2) architectural design, 3) natural elements and 4) consultation and public engagement, responsive to older people's needs as listed below:

8.3.2.1 Vehicles and walking facilities

- Development of traffic-free areas in city centre
- Introduce more green elements to reduce noise and pollution from vehicles

- Introduce better separation between pavements and roads (e.g. street pillars or street trees)
- Improve safety at crossing points (e.g. raised platforms)
- Reduce waiting times for pedestrians at crossing points – give priority to pedestrians
- Improve safety for pedestrians in shared space (e.g scooters, cycles) – give priority to pedestrians
- Revise crossing times for pedestrians at crossing points
- Provide plentiful rest areas (e.g benches, seating at bus stops) and prioritise the needs of older people
- Improve public or semi-public toilets provision (not only to add more public toilets, but perhaps having schemes with businesses that allow older people to access existing toilets more easily, e.g. without having to buy anything)
- Introduce handrails and alternatives to steps
- Improve kerbs and pavement qualities (e.g. design, types of material, height, width and conditions)
- Improve lighting in streets and underpasses areas
- Improve general cleanliness and maintenance of streets and public areas.

8.3.2.2 Architectural design

- Enhance preservation and conservation of historic areas (e.g. canals), buildings (e.g. museums), and historical elements (e.g. statues, lampposts)
- Improve interpretation and awareness of such historical elements (e.g. with interpretation / information plaques)

- Design walking routes in historic areas, including in historic parks
- Encourage design and architecture that reflect local identity

8.3.2.3 Natural elements in cities

- Enhance green spaces
- Provide trees for shade
- Improve flower displays
- Improve maintenance of natural spaces

8.3.2.4 Consultation and public engagement activities with older people

- Introduce active frontages, outside seating, and public squares
- Promote placemaking and community events (e.g. exhibitions, walking trails, etc.)
- Introduce walking activities (e.g. historical walks, cultural walks, etc.).
- Reduce digital exclusion through offering traditional consultation methods (e.g. face-to-face communication, use physical map etc)
- Conduct more activities and collaboration with NGOs who understand older people's experience well

8.4 Future Research

Continued research is needed to provide detailed findings that can inform and improve universal design, transportation systems, and walking facilities. Among the practitioners that could be researched includes the developers - where the implementation stages take part. As for older people groups, it is interesting to have the continued research reach the 80s and 90s group of older people – where competencies are lower, and those older people who never come to the city centre – i.e. who are currently excluded from the production of space of the city centre.

The transfer of knowledge to the different context of developing countries, such as ASEAN countries, may provide a different range of outputs in planning an inclusive walking environment for older people. Further research also could be conducted on urban areas of different sizes (from megacities to villages) or countries with different development levels. Additionally, comparison between cities in different parts of the world where people might age differently, and / or attitudes to older age and older people may be different, could be illuminating.

Collaboration with policy researchers may improve the likelihood of translating research findings into changes in environments, policies, and practices. With the current pandemic situation, it is also sigificant for the continued research to investigate how the pandemic changed things and if this has changed the configuration of environments and affected walkability for older people.

APPENDICES

Appendix 1 Interview Schedule for Older People – Focus Group

Appendix 2 Information sheet and consent form for Older People's Focus Group

Appendix 3 Interview Schedule for Older People – Semi-structured Interview

Appendix 4 Information sheet and consent form for Older People's Individual

Appendix 5 Interview Schedules for Professionals

Appendix 6 Information sheet and consent form for Professional's Interview

Appendix 7 Recruitment flyer when contacting focus groups (attachment to email)

Appendix 1 Interview Schedule for Older People – Focus Group

FOCUS GROUP INTERVIEW SCHEDULE FOR OLDER PEOPLE TO UNDERSTAND WALKABILITY ISSUES IN BIRMINGHAM CITY CENTRE

Name of the interviewee :

Name of social centre :

Date of interview :

Time of interview :

Introduction

- ✓ Information sheets will have been given, and participants will be given the opportunity to ask questions.
- ✓ Participants will be reminded that there are not right or wrong answers, we are interested in their experiences or opinions.
- ✓ Participants will also be asked to respect each other's confidentiality and not share anything that is said with people who are not present in the group.

Focus Group Question Guide

THEMES	INITIAL QUESTIONS	FOLLOW-UP PROBES
Meaning and Ideas around Walkable City	Has anybody already, or is anybody going to walk today?	• Why do you walk? (e.g. transport/health/leisure) • How much time do you spend on

(RQ2)		average do you walk in a day or in a week?
	Has anyone heard about the idea of a walkable city?	• How did you hear about it? • What do you think a walkable city is? Can you describe it? • What in your opinion makes a city walkable or not walkable? • What would you expect a walkable city to be or look like?
	Do you think walkable city should be for everyone?	• Inclusive at any time? • Inclusive at any place?
Walking and Social Participation in a City Life **(RQ1)**	Has anybody ever walked in and around Birmingham City Centre?	• When? • When was the most recent time? • How often? • Why? What brings you there? • How do you get to the city centre? • In which parts do you walk? How long do you spend there? • Who do you go with?
	How do you feel walking in and around Birmingham City Centre?	• What are the differences between walking in and around your neighbourhood and Birmingham City Centre?

		• Do you feel better walking in one or the other? Which one and why?
	Do you interact with other people while walking around Birmingham City Centre?	• How do you interact with them? • How does this make you feel?
	What activities (which involve walking) are usually found in Birmingham City Centre?	• Do you know of any walking events or programme that are conducted in Birmingham City Centre? • Who organizes these events? • Have you ever joined in? – Why (not)? – Would you ever join in?
Inclusive Walkable Environment **(RQ2)**	What do you think about the walking facilities/services that can be found in Birmingham City Centre?	• Specific questions about walking facilities/services that can be found there (e.g. pavement, seatings, toilets, lightings) • What are the services/facilities that you need most?
	Do you use public transportation in Birmingham City Centre?	• What kind of transport? • Do you think transport helps you to walk in and around the city

		(centre)?
	How satisfied are you with the walking environment in and around Birmingham City Centre?	• Does it meet you expectations (purpose) when you walk? – Why? • Do you feel safe? – Why? • Do you feel comfortable? – Why? • Does the environement interest you? – Why? • What do you like most about walkign in Birmingham City Centre? • Is there anything you do not like about walking in Birmingham City Centre?
	Do you think walking environment in Birmingham City Centre is for everyone?	• Who do you think usually walks in Birmingham City Centre? • Do you face any issues or difficulities while walking in and around the city centre?
	Can you mention, which part of the Birmingham City Centre is walkable and which part is not?	• Why? • When is it walkable and when it is not?

Involvement in a Walkable City's Planning and Development **(RQ3)**	Are you aware of the Walkable City Project of Birmingham City Centre Vision for Movement (Birmingham City Council, 2010) in Birmingham City Centre?	If YES, • Did you feel you had a chance to be involved or consulted? • Who consulted you? • When? • How? • What do you expect from this project? • Do you have any comments to add about this project? If NO, • Would you have wanted to get involved or be consulted? • Who do you think should have consulted you? • When do you think they should they consulted you? • How? • Do you have any other comments to add about this?
	In your opinion, which part of Birmingham City Centre is walkable and which part is not?	• What makes this/these parts walkable? • Are they always walkable? • When is it walkable and when it is

		not?
	What would you do to improve walkability in Birmingham City Centre?	• What are the most important priorities for a change? • Who do you think plays the important roles to make the changes?
Regulations for A Quality of Life and Healthy Ageing **(RQ4)**	What are the things that contribute to your better quality of life?	• Do you think Birmingham City Centre might offers that? • Why (not)?

THANK YOU

Appendix 2 Information sheet and consent form for Older People's Focus Group



UNIVERSITY OF BIRMINGHAM

Information Sheet of FAQs (for you to keep)

Study title: Walking and social participation among older people in an urban area.

(This project as a part of the student's PhD will be undertaken by Naeemah Yusof, PhD student at the University of Birmingham, UK)

1. What is the purpose of the project?

This study seeks to understand the walkability issues and investigate pedestrian experience walking in Birmingham City Centre.

2. Why have you been chosen?

You have been asked to participate in this study because you have indicated that you are interested to share your views and walking experience in and around the Birmingham City Centre.

3. What will happen to you if you take part?

Your involvement in the study would be to take part in a focus group discussion where we can discuss your walking experiences. The researcher particularly interested in older people experiences of walking in urban area.

The focus group discussion will last between 60 and 80 minutes. With your permissions, the researcher would like to record the discussion, so that mothing is missed. Data will be collected, stored and managed by the University of Birmingham in line with the Data Protection Act 1998 and will ONLY be use for the purpose of research study.

Participation is voluntary. It is up to you to decide whether to take part. Your real name will be assigned a pseudonym (NOT USING YOUR REAL NAME) according to your wishes.

4. If you want to take part, what will happen next?

Please read this information sheet and ask any further questions you have regarding the study. If you are happy with the information, you will be asked to fill out the consent form provided with a copy of this.

If you decide to take part, you are still free to change your mind for 3 months after the interview without having to give a reason. You can contact the researcher as below, and your data will be destroyed if you choose to withdraw within 3 months.

If you still have any questions, please do not hesitate to contact us by text or phone on [redacted] or by email on [redacted] We will explain what the

research is about, what will be involved in the interview process and can answer any questions you might have.

5. Will your taking part in this study be kept confidential?

All information that is collected from you during the course of the research will be kept strictly confidential. The information shall normally be preserved and accessible for ten years following the completion of the research.

Your identity will only be known to the researcher, and you will be anonymous in all outputs. Your name will be changed in anything that is written from the research. In addition, any details which potentially could identify you will also be removed or changed.

The academic supervisors will have access to the anonymized transcripts of your interview, but the researcher will be the only person to have access to the original recordings of the interview, your consent form and any of your contact details. Your participation in this study will not be discussed with other interviewees and we will ensure that your contribution remains entirely confidential and anonymous.

6. What will happen to the results of the research study?

The results of the study will be used in Naeemah Yusof's PhD thesis. The material may be presented at academic and professional conferences and in academic journals. Anonymity and confidentiality will still be in place in all cases. Findings from this study

will assist designers and stakeholders on how to encourage social participation through promoting walking activities among older people in urban areas.

The data will normally be preserved and accessible for ten years following the completion of the research, but your personal details will not be kept with the data so you will not be identifiable by anyone looking at the data later.

7. Funding of Study

This research is being undertaken as part of a PhD funded by the Malaysian Ministry of Education.

8. Contact for further information

Naeemah Yusof

Doctoral Researcher, University of Birmingham

Telephone: [redacted] Email: [redacted]

Dr. Peter Lee

Senior Lecturer, University of Birmingham

Telephone: [redacted] Email: [redacted]

Dr. Rosie Day

Senior Lecturer in Environment and Society, University of Birmingham

Telephone: [redacted] Email: [redacted]

Consent form (For you to hand in to researcher)

Please read the following statements and tick the box if you agree:

I consent to participate and be recorded for the purpose of this research. ☐

I consent to the use of quotations from me in reports and publications arising from the research, without my identity being revealed. ☐

Please ask any further questions you have about this research project at any time. Please print your name, sign and date below if you give your consent to participate in this study according to the conditions stated above.

Participant	**Researcher**
Print name:	Print name:
Sign:	Sign:
Date:	Date:

……

For contacts purposes, please fill out your contact details below (these details will remain confidential and will NOT be passed on to any other parties).

Name: ….....

Full address:

……

……

……

Telephone number (mobile number is preferable):

……

Demographic Information (For you to hand in to researcher)

For this study purposes, please fill out your demographic details below (these details will remain confidential and will NOT be passed on to any other parties)

1.	Year of Birth	:		
2.	Gender	:		
3.	Occupation	:		
4.	Marital status	:		
5.	Religious Background	:		
6.	Level of Education	:	< High school High school Some college Vocational / Technical Undergraduate /Bachelor's degree Graduate / Postgraduate's degree	☐ ☐ ☐ ☐ ☐ ☐
7.	Income Range (YEARLY)	:	< £10,000 £10,000 – £19,999 £20,000 – £29,999 £30,000 – £39,999 £40,000 >	☐ ☐ ☐ ☐ ☐
8.	No. of Vehicles in your Household	:		
9.	Types of Vehicles in your Household	:		

Appendix 3 Interview Schedule for Older People – Semi-structured Interview

SEMI-STRUCTURED INTERVIEW SCHEDULE FOR OLDER PEOPLE TO UNDERSTAND WALKABILITY ISSUES IN BIRMINGHAM CITY CENTRE

Name of the interviewee :

Address of the interviewee :

Contact No of the interviewee :

Date of interview :

Time of interview :

Name of social centre :

Introduction

- ✓ Information sheets will have been given, and participants will be given the opportunity to ask questions.
- ✓ Participants will be reminded that there are not right or wrong answers, we are interested in their experiences or opinions.
- ✓ Participants will also be asked to respect this study's confidentiality and not share anything that is said with people who are not being interviewed yet.

Part A: Meaning and Ideas around Walkable City (RQ2)

1. Have you already or will you walk today?
    - Why do you walk? (transport/health/leisure)
    - How much time do you usually you spend walking during a day or a week?

2. Have you heard about the idea of a walkable city?
    - Where did you hear about it?
    - What do you think a walkable city is? Can you describe them?
    - What, in your opinion makes a city walkable or not walkable?
    - What would you expect a walkable city to be or look like?
3. Do you think walkable cities should be for everyone?
    - Should it be walkable for everybody at all times? (i.e day and night?)
    - Should the whole city be walkable for everybody?

Part B: Walking and Social Participation in a City Life (RQ1)

4. Do you have experience walking in and around Birmingham City Centre?
    - When? What was the most recent time?
    - How often do you walk there?
    - Why? What brings you there?
    - How do you get to Birmingham City Centre?
    - Which partsdo you walk in?
    - How long do you spend walking there?
    - With whom?
5. How do you feel walking in and around Birmingham City Centre?
    - Does it meet you expectations when you walk? – Why?
    - Do you feel safe? – Why?
    - Do you feel comfortable? – Why?
    - Does the environement interest you? – Why?
    - What do you like most about walkign in Birmingham City Centre?

- Is there anything you do not like about walking in Birmingham City Centre?

6. What are the differences between walking in and around your neighbourhood and Birmingham City Centre?
    - What are the differences between walking in and around your neighbourhood and Birmingham City Centre?
    - Do you feel better walking in one or the other? Which one and why?
7. Do you interact with other people while walking around Birmingham City Centre?
    - What do you think it is that encourages or discourages people's interactions in the city centre?
8. What activities (which involve walking) are usually found in Birmingham City Centre?
    - Do you know of any walking events or programme that are conducted in Birmingham City Centre?
    - Who organizes these events?
    - Have you ever joined in? – Why (not)? – Would you ever join in?

Part C: Inclusive walkable environment (RQ2)

9. Do you have favourite spots in Birmingham City Centre (e.g. market, restaurants, stores or shops)?
    - If yes, what are they?
    - What makes them your favourite? – Probe on easy to access, comfort etc.

10. If someone asked you to describe Birmingham City Centre, what would you say?
    - Why would you use those words?
11. Do you think the walking environment in Birmingham City Centre is inclusive for everyone?
    - Who usually walks in Birmingham City Centre?
    - Do you or have you faced any issues or difficulities while walking in and around the city centre?
12. Do you feel your walking needs might be different to others?
    - How and why?
13. What do you think about the walking facilities/services that can be found in Birmingham City Centre?
    - Specific questions about walking facilities/services that can be found there (e.g. pavement, seatings, toilets, lightings)
    - What are the services/facilities that you need most?
14. Do you think public transportation in Birmingham City Centre helped you to walk in and around the area?
15. How satisfied are you with the walking environment in and around Birmingham City Centre?

Part D: Involvement in a Walkable City's Planning and Development (RQ3)

16. What, if anything, do you think has changed in Birmingham City Centre over the last few months or years?
17. Are you aware of the Walkable City Project as part of Birmingham City Centre Vision for Movement (Birmingham City Council, 2010)?

- If YES,
    - Do you feel you have/had the chance to be involved or consulted?
    - Who consulted you?
    - When?
    - How?
    - What do you expect from this project?
    - Do you have any comments to add about this project?
- If NO,
    - Would you want/have wanted to get involved or consulted?
    - Who should have consulted you?
    - When should they have consulted you?
    - How?
    - Do you have any comments to add about this?

18. Can you mention, which parts of Birmingham City Centre are walkable and which part is not?
    - Why?
    - When are they walkable and when are they not?

Part E: Regulations for A Quality of Life and Healthy Ageing (RQ4)

19. What would you do to improve the walking environment in Birmingham City Centre?
    - What would you most important priorities be?
20. Who do you think plays the important role(s) in making these kind of changes?

21. When you think about your overall quality of life, what are/would be the things that contribute to a better quality of life for you?
22. Do you have any other comments on your walking experience in Birmingham City Centre?

THANK YOU

Appendix 4 Information sheet and consent form for Older People's Individual Interview



UNIVERSITY OF BIRMINGHAM

Information Sheet of FAQs (for you to keep)

Study title: Walking and social participation among older people in an urban area.

(This project as a part of the student's PhD will be undertaken by Naeemah Yusof, PhD student at the University of Birmingham, UK)

1. What is the purpose of the project?

This study seeks to understand the walkability issues and investigate pedestrian experience walking in Birmingham City Centre.

2. Why have you been chosen?

You have been asked to participate in this study because you have indicated that you are interested to share your views and walking experience in and around the Birmingham City Centre.

3. What will happen to you if you take part?

Your involvement in the study would be to take part in a focus group discussion where we can discuss your walking experiences. The researcher particularly interested in older people experiences of walking in urban area.

The focus group discussion will last between 60 and 80 minutes. With your permissions, the researcher would like to record the discussion, so that mothing is missed. Data will be collected, stored and managed by the University of Birmingham in line with the Data Protection Act 1998 and will ONLY be use for the purpose of research study.

Participation is voluntary. It is up to you to decide whether to take part. Your real name will be assigned a pseudonym (NOT USING YOUR REAL NAME) according to your wishes.

4. If you want to take part, what will happen next?

Please read this information sheet and ask any further questions you have regarding the study. If you are happy with the information, you will be asked to fill out the consent form provided with a copy of this.

If you decide to take part, you are still free to change your mind for 3 months after the interview without having to give a reason. You can contact the researcher as below, and your data will be destroyed if you choose to withdraw within 3 months.

If you still have any questions, please do not hesitate to contact us by text or phone on [redacted] or by email on [redacted] We will explain what the

research is about, what will be involved in the interview process and can answer any questions you might have.

5. Will your taking part in this study be kept confidential?

All information that is collected from you during the course of the research will be kept strictly confidential. The information shall normally be preserved and accessible for ten years following the completion of the research.

Your identity will only be known to the researcher, and you will be anonymous in all outputs. Your name will be changed in anything that is written from the research. In addition, any details which potentially could identify you will also be removed or changed.

The academic supervisors will have access to the anonymized transcripts of your interview, but the researcher will be the only person to have access to the original recordings of the interview, your consent form and any of your contact details. Your participation in this study will not be discussed with other interviewees and we will ensure that your contribution remains entirely confidential and anonymous.

6. What will happen to the results of the research study?

The results of the study will be used in Naeemah Yusof's PhD thesis. The material may be presented at academic and professional conferences and in academic journals. Anonymity and confidentiality will still be in place in all cases. Findings from this study

will assist designers and stakeholders on how to encourage social participation through promoting walking activities among older people in urban areas.

The data will normally be preserved and accessible for ten years following the completion of the research, but your personal details will not be kept with the data so you will not be identifiable by anyone looking at the data later.

7. Funding of Study

This research is being undertaken as part of a PhD funded by the Malaysian Ministry of Education.

8. Contact for further information

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Dr. Peter Lee

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Dr. Rosie Day

Senior Lecturer in Environment and Society, University of Birmingham

Telephone: [redacted] Email: [redacted]

Consent form (For you to hand in to researcher)

Please read the following statements and tick the box if you agree:

I consent to participate and be recorded for the purpose of this research.	☐
I consent to the use of quotations from me in reports and publications arising from the research, without my identity being revealed.	☐

Please ask any further questions you have about this research project at any time. Please print your name, sign and date below if you give your consent to participate in this study according to the conditions stated above.

Participant	**Researcher**
Print name:	Print name:
Sign:	Sign:
Date:	Date:

……

For contacts purposes, please fill out your contact details below (these details will remain confidential and will NOT be passed on to any other parties).

Name: ….....

Full address:

……

……

……

Telephone number (mobile number is preferable):

……

Demographic Information (For you to hand in to researcher)

For this study purposes, please fill out your demographic details below (these details will remain confidential and will NOT be passed on to any other parties)

1.	Year of Birth	:		
2.	Gender	:		
3.	Occupation	:		
4.	Marital status	:		
5.	Religious Background	:		
6.	Level of Education	:	< High school High school Some college Vocational / Technical Undergraduate /Bachelor's degree Graduate / Postgraduate's degree	☐ ☐ ☐ ☐ ☐ ☐
7.	Income Range (YEARLY)	:	< £10,000 £10,000 – £19,999 £20,000 – £29,999 £30,000 – £39,999 £40,000 >	☐ ☐ ☐ ☐ ☐
8.	No. of Vehicles in your Household	:		
9.	Types of Vehicles in your Household	:		

Appendix 5 Interview Schedules for Professionals

SEMI-STRUCTURED INTERVIEW SCHEDULE FOR LOCAL AUTHORITY AND KEY STAKEHOLDERS ASSOCIATED WITH THE WALKABLE CITY PLANNING AND DEVELOPMENT PROJECT IN THE BIRMINGHAM CITY CENTRE

Date and time of interview :

Place of interview :

Interviewee's Gender :

Organisation / Institution :

Position / Title :

Introduction

- ✓ Information sheets will have been given, and participants will be given the opportunity to ask questions.
- ✓ Participants will be reminded that there are not right or wrong answers, we are interested in their experiences or opinions.
- ✓ Participants will also be asked to respect this study's confidentiality and not share anything that is said with people who are not being interviewed yet.

Part A: Background and context

- o How long have you been in this current position? What is the scope of your work?
- o Do you have experience of being involved in any walkable city planning and development in Birmingham or elsewhere?

- In your role / position, are you involved (physically/virtually) with the older people?

Part B: Meaning and Ideas around Walkable City (RQ2)

1. What do you think a walkable city is? Can you describe walkable city?
2. In your opinion, what factors must be considered when designing a walkable city?
    - Probe on walkability factors that include reason to walk, safety, comfort and interest
3. What are the benefits of walkable city?
    - Probe more on environmental, psychological, social and health benefits for people and the future
4. Does walkable city benefits some people more than others.
    - Does it exclude anyone?
    - How?
5. Do you think a walkable city should be more inclusive?
    - Why? What are the benefits for social sustainability?
    - What are the situation in Birmingham City?

Part C: Inclusive Walkable Environment (RQ2)

6. Within your professional capacity, how do you define an older pedestrian?
    - Probe on the biological, psychological and physical aspect of older people
    - What are the needs that should be considered for older people to walk in and around the urban area?
        i. Probe more on the behavioural and environmental factors

7. Do you think walking services/facilities provided in Birmingham City Centre support older people to walk in and around the area.
    - Mention the walking services/facilities provided for older people in Birmingham City Centre
    - Are they a success in practice?
    - Are they in a good condition? Any maintenance involved?
8. What are the main issues that affect walkability in Birmingham City Centre?
9. To what extent do public spaces such as markets, squares, parks and high streets affect walkability in Birmingham City Centre.
    - Do they offer relief from the hustle of typical city living?
    - What types of activities usually offered there to convince people to walk?
10. Does the public transportation in Birmingham City support older people to walk in and around the urban area?
    - How?
    - Is there any policy or regulation involved in this?

Part D: Walkable City Planning and Development Project (RQ3)

11. What are the current stages of the walkable city planning and development project of Birmingham City Centre Vision for Movement (Birmingham City Council, 2010)?
    - What is the overall strategy?
    - What are the key objectives?
    - Duration of the project?
    - Financial cost involved?
    - Who are the stakeholders involved?

12. Were/are older people included as part of the walkable city agenda in Birmingham City Centre?
    - Which policies? Which clause/section?
    - How is it/are they being implemented?
13. Within your role in walkable city planning/development, was it important to get older people involvement (physically/virtually) in the Birmingham City Centre walkable city planning and development stages?
    - Why? Who else involved?
    - Have you consulted older people at all?
    - By what means, who was consulted? How were they consulted? When in the process?
    - Are there any examples of how that fed through into the policy
14. Why is the walkable city planning and development project of Birmingham City Centre Vision for Movement (Birmingham City Council, 2010) focused on the boundary of city centre area?
    - Why was that the priority?
    - Why do certain areas such as Market Sites seemed excluded from the retail and leisure pedestrian links.
15. This project seemed to be aimed at improve the quality of life for locals as much to draw in further private sector investment. What do you (personally/professionally hope to accomplish with this project?)
    - How are you defining success?
    - Are there any designers who have influenced your thinking on how to design successful walking spaces?

16. Within your role in walkable city planning/development, to what extent do you think Birmingham City Centre is inclusive for older pedestrian?
    - Is it important to encourage older people to walk? (probe on the important of social participation including better functional skills, well-being, heath related quality of life and survival) – why (not)
    - What are the other policies or regulations that support older pedestrians' rights in Birmingham City Centre?
    - How are they being implemented? (ask for supporting documents)

Part E: Walking and Social Participation (RQ1)

17. Have you ever involved in any events/programmes that have aimed to promote walking among older people in Birmingham City Centre?
    - When? What were they?
    - Who organized these events
    - How do older people get involved? How many of them?
18. What do you understand by social participation in a city life?
    - Probe on the factors of social participation including social interaction and physical activities.
19. Within your professional capacity, what are the strategies used in convincing older people to walk in and around the urban area? How has/is Birmingham City Centre implementing it?
    - Probe more on both objective (reality) and subjective (perceptions) walkability factors that include providing older people with a reason to walk, a safe walk (be safe and feel safe), a comfortable walk and an interesting walk

Part F: Regulations for A Quality of Life and Healthy Ageing (RQ4)

20. What are the key elements for good urban / city planning in the 21st century?
    - Is walkable city one of the key elements for good urban / city planning?
    - Probe on the issues of ageing society
21. What do you understand to be the necessary pieces in improving quality of life for older people?
    - What is Birmingham City offering / missing?
    - What are the potentials offered by Birmingham City Centre for a better quality of life and healthy ageing?
22. To what extent is an inclusive walkable environment important in ensuring quality of life and healthy ageing?
    - Probe more importance of physical activities and social interaction among older people for a better quality of life and healthy ageing
23. Within your professional capacity, who do you think plays an important role in encouraging older people to walk in and around Birmingham City Centre.
    - How to regulate? - Probe on the strategies for promoting social participation including educations, support groups and walking program for older people living
    - What are the barriers and challenges?
24. Any additional comment/suggestion on how to make Birmingham City Centre an inclusive walkable area for older people?

THANK YOU

Appendix 6 Information sheet and consent form for Professional's Interview



UNIVERSITY OF BIRMINGHAM

Information Sheet of FAQs (for you to keep)

Study title: Walking and social participation among older people in an urban area.

(This project as a part of the student's PhD will be undertaken by Naeemah Yusof, PhD student at the University of Birmingham, UK)

1. What is the purpose of the project?

The purpose of this project is to understand how can walking environments encourage older people social participation in city planning, and to investigate who plays important roles to regulate the strategy of spatially just walking environment in order to encourage older people' social participation for achieving healthy ageing living in a city planning?

2. Why have you been chosen?

In view of the above purpose, this research interested to select the Walkable City Project in Birmingham City Centre as the case study. Therefore, the researcher would like to have a conversation with the professionals, government officials and the other stakeholders who have been contributed and involved (directly or indirectly) in the project

of planning and developing a walkable city in Birmingham City Centre. This research also give focus to the social participation among older people through promoting walking activities in an urban area.

3. What will happen to you if you take part?

Your involvement in the study would be to take part in an interview where we can discuss your experiences as a professionals / stakeholders in varies city planning level. What this research would particularly interest to explore the relation between spatial justice and walkability for older people in city planning. This research interested to know on how the city planning integrate the needs and rights of older people into planning a walkable city. Then, this research also will investigate on how important is social participation among older people in a city life from the perspective of different professionals / stakeholders.

The interview will be conducted between 40 to the maximum of 60 minutes and the researcher will record the interview with your permission unless you state that it would be preferential not to. This is to ensure the accuracy of data and mitigate misrepresentation.

Participation is voluntary. It is up to you to decide whether to take part. Your name will not be used in this research but your position could be indicated, or may be inferable.

4. If you want to take part, what will happen next?

Please read this information sheet and ask any further questions you have regarding the study. If you are happy with the information, you will be asked to fill out the consent form provided with a copy of this. Once you have done this, you will be contacted to arrange the date, location and time of the interview. If you decide to take part, you are

still free to withdraw for 3 months after the interview without a given reason, and your data will be destroyed if you choose to withdraw.

And if you still have any questions, please do not hesitate to contact us by text or phone on [redacted] or by email on [redacted] We will explain what the research is about, what will be involved in the interview process and can answer any questions you might have.

5. Will your taking part in this study be kept confidential?

All information that is collected from you during the course of the research will be kept strictly confidential. The contact information required are your name, position, telephone number and email address. The information shall normally be preserved and accessible for ten years following the completion of the research, as the confidentiality and anonymity of them being kept. As a professional participant at key position who may be identifiable to third parties by means of your job, it may not be possible to keep your identity fully anonymous in outputs, but we can discuss this if you feel this presents any problems. Your name will not be used in this research but your position could to be indicated, or may be inferable. My academic supervisors will have access to the anonymized transcripts of your interview, but the researcher will be the only person to have access to the original recordings of the interview, your consent form and any of your contact details. Your participation in this study will not be discussed with other interviewees and the researcher will ensure that your contribution remains entirely confidential.

6. What will happen to the results of the research study?

The results of the study will be used in my PhD thesis. The material may be presented at academic and professional conferences and in academic journals. Anonymity and confidentiality will still be in place in all cases. Findings from this study will assist designers and stakeholder on how to encourage social participation and walking activities among older people in a city.

The data will normally be preserved and accessible for ten years following the completion of the research, but your personal details will not be kept with the data so you will not be identifiable by anyone looking at the data later.

7. Funding of Study

This research is being undertaken as part of a PhD funded by the Malaysian Ministry of Education.

8. Contact for further information

Naeemah Yusof

Doctoral Researcher, University of Birmingham

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Dr. Rosie Day

Senior Lecturer in Environment and Society, University of Birmingham

Telephone: [redacted] Email: [redacted]

Dr. Peter Lee

Senior Lecturer, University of Birmingham

Telephone: [redacted] Email: [redacted]

Consent form (For you to hand in to researcher)

Please read the following statements and tick the box if you agree:

I consent to participate and be recorded for the purpose of this research.	☐
I consent to the use of quotations from me in reports and publications arising from the research, without my identity being revealed.	☐

Please ask any further questions you have about this research project at any time. Please print your name, sign and date below if you give your consent to participate in this study according to the conditions stated above.

Participant	**Researcher**
Print name:	Print name:
Sign:	Sign:
Date:	Date:

……

For contacts purposes, please fill out your contact details below (these details will remain confidential and will NOT be passed on to any other parties).

Name: ….....

Full address:

……

……

……

Telephone number (mobile number is preferable):

……

Appendix 7 Recruitment flyer when contacting focus groups (attachment to email)

FOCUS GROUP + INTERVIEW

PARTICIPANTS NEEDED

(December 2016 - February 2017)



ARE YOU:

65 years old and above
Able to walk independently
Have walking experience in Birmingham City Centre

let's share with us your
WALKING EXPERIENCE

and you will get **FREE**
shopping voucher worth £20!



Contact NOW!

[redacted]



UNIVERSITY OF BIRMINGHAM

NAEEMAH

[redacted]

(Propose to attach the contact details of relevant social centres / organizations here)

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