Her 20-minute neighbourhood.

A critical feminist review of women's experiences of the 20-minute neighbourhood in Corstorphine, Edinburgh.

Sorcha MacIntyre : s.macintyre@student.rug.nl/

University of Groningen Faculty of Spatial Sciences

Research Masters Thesis

Specialisation: Society, Sustainability, Planning

Supervisor: Leonieke Bolderman

Course Coordinator: Frans Sijtsma

Potential: Paper Submission for Cities and Community

Abstract

Feminist planners have long been interested in uncovering the gendered exclusions which persist within urban spaces. This research examines the 20-minute neighbourhood which claims to create efficient cities. Feminist literature emphasises that gender identity positions and impacts on your lived experience of space. The types of everyday socio-spatial interactions that exclude women remain understudied in urban studies. Does the 20-minute planning concept respond to women's needs? This qualitative research uses participatory mapping, intensive walking interviews and a focus group discussion to examine how female residents in a traditional Scottish suburb experience gender exclusion through their everyday negotiation of their neighbourhood. Their experiences are critically appraised against the Scottish interpretation of the 20-minute neighbourhood model.   The results point to a disconnect between the planned implementation of the 20 minute neighbourhood and a continued ignorance and lack of recognition of how women's experiences could inform successful implementation and behavioural change.

Contents

1. Introduction

'*Many problems are created for women when no thought is given to the implications for women of policy decisions because it is presumed the topic in question has nothing to do with gender* (Greed, 1994, p. 48)'.

Involving everyone within city planning has always been a challenge. In the last decade a movement towards creating equal and accessible cities has become a priority in urban planning. In order to make an accessible city a reality the voices of each citizen should be listened to. This study will look specifically at women's voices within city planning with the aim of understanding what women want for the future of their neighbourhoods.

While women represent half the population, they are often not prioritised within city planning projects. As Perez (2019) states that "*The vast majority of information that we have collected globally, and continue to collect… has been collected on men, male bodies, and typical male lifestyle patterns…The result is that many things in the world, most things actually, just don't work as well for women..*"

As both Greed (1994) and Perez (2019) underline, lack of thought and research regarding the gendered nature of urban planning has led to many assumptions being made without including women's needs within decision making processes.

The aim of this study is to explore the experiences of the 20-Minute neighbourhood planning concept through feminist participatory action research. The research will seek to identify how a feminist perspective can contribute to the 20-minute neighbourhood concept. The paper will explore the gendered urban environment, women's wider societal planning priorities and suggest what aligns or does not align with the 20-minute neighbourhood concept. The research question was;

How does the 20-minute neighbourhood concept align with women's expectations of their neighbourhood?

The following sub-questions were utilised to address this research question:

- What do the 20-minute neighbourhood and feminist theory concepts presuppose about what residents, and specifically women should expect from their neighbourhood?

- How do women reflect on their experiences of living in Corstorphine and how does this influence urban planning priorities?

The findings suggest recommendations that promote the inclusion of women's views in the planning and implementation of neighbourhood concepts.

By studying the dynamics of exclusion experienced by female residents in Corstorphine, the findings challenge the typical 20-minute neighbourhood narrative in which the planning policy caters for all citizens in a neighbourhood. It builds on prior research findings that the urban environment does not always favour women (Valentine, 1989; Kern, 2020) by identifying specific interactions with the socio-spatial environment which women experience. This research takes a case-study approach in the neighbourhood of Corstorphine, Edinburgh involving women in; an online participatory mapping exercise, five walking interviews and a community-based Focus Group meeting.

2. Theoretical Background
2.1 Presenting chrono-urbanism and 20-minute neighbourhood concept

Chrono-urbanism is a recent manifestation of new urbanism and has influenced both theory and policy (Calafiore, et al., 2022).   Chrono-urbanist planning has been defined by Osman et al., (2019) as a '*Policy dealing with urban time'(p270).* Osman et al (2019) argue that the problems of contemporary city communities stem from temporal uncertainty, its transfer to the individual, the creation of individual "just-in-time" strategies and the simultaneous management of multiple tasks.

Chrono-urbanist planning policies are primarily based around temporal efficiency. As Calafiore, et al., (2022) noted *'At its heart, the idea of the 20-minute city is a simple one: that most basic needs can be met within a 20-minute round trip from the home (p2).* Osman's chrono-urbanism proposes that the response to social inequalities is the generally speeding up of everyday activity, including the irregularity of activities, and the uncertainty of an unforeseeable future. There is especially a focus on being able to access employment in smaller time-frames.   The 20-minute city case-study of Tempe, Arizona by (Silva, et al., (2019) focuses mainly on '*accessibility of opportunities'* referring to employment. Silva et al., (2019) find that *'a suburban city like Tempe is unlikely to balance jobs and housing in a way that allows for substantial reductions in car commuting'* because it is so spread out spatially. Silva et al., (2019) paper suggests therefore that the ideal city would have accessible and efficient access to employment.

Carlos Moreno (2021), founder of the 15-minute city concept, argues that "*the quality of urban life is inversely proportional to the amount of time invested in transportation, more so through the use of automobiles'(p100).* Later in his paper this was referred to as '*commuting time'* which indicates that Moreno et al., (2021) further support the efficient access of employment. Moreno et al., (2021) maintain that residents will be able to enjoy a higher quality of life with the following 'needs' being within 15minutes: living, working, commerce, healthcare, education and entertainment. It has to be

questioned whether this 'need' for work to be within 15-minutes is the most important aspect for the residents of neighbourhoods.

Other researchers argue that sustainability and health goals underlie the drive for 15 and 20 minute planning concepts. Chrono-urbanist concepts favour infrastructure which encourages walkability and cycling. Two key benefits are seen through developing such infrastructure. First, the '15-minute walkable neighbourhood' explored by Weng, et al., (2019) highlights the health dimensions of walkable neighbourhoods, especially in mitigating against diseases such as obesity. Second, the '20-minute city' presented by Silva et al (2019) promotes the increased accessibility of cycling networks and walkable infrastructure for climate change mitigation.

Consideration of the social elements of chrono-urbanist planning policies and their implementation tends to be less of a focus in research.   Fewer researchers have explored the usefulness of the chrono-urbanist concepts in addressing the social inequalities that exist within neighbourhoods. Calfiore, (2022) emphasises that solving social inequalities is more complex than reorganising planning initiatives towards efficiency. He states that policymakers should either prioritise easy to implement initiatives or tackle the existing inequalities.

Moreno et al., (2021) do acknowledge the benefits of social factors of the neighbourhood and state that the 20-minute neighbourhood differs from the 15-minute city as it '*Does not emphasise a need for sustainable social interactions and participation of urban residents*.' Moreno et al (2021) emphasise the importance of social bonds, building character and trust in creating '*healthy urban landscapes'*. There are multiple interpretations of what constitutes a 'healthy urban landscape' including, the integration of green spaces (Trusiani, 2018), the encouragement of active play on the streets for children through Play Street (Meyer, et al., 2019), to initiatives to incentivise cycling (Pucher & Buehler, 2010).

Moreno et al (2021) conceptualises the 15-minute city through: Density, Proximity, Diversity and Digitalisation. Moreno et al (2021) as shown in Figure 1, particularly emphasising the role of

proximity and diversity in contributing towards solving social inequalities. They emphasise the

Figure 1 : Conceptual model 15-minute city Moreno et al (2021)

promotion of '*different cultures and people, thus promoting social cohesion and helping in creating more social capital*'. The close 'proximity' of people is further seen by Moreno et al.,(2021) to promote social interaction, based on the fact that people no longer spend time travelling and are then in their neighbourhood more. Coronavirus has encouraged this transition where many people

were forced to work-from-home. Moreno et al., (2021) model with its inclusion of Digitalisation

accounts for this recent change in neighbourhood presence. The question remains as to who

benefits from this social interaction and who is building the social capital.

There is little acknowledgement within Moreno et al., (2021) paper on how social interaction in the

15-minute city would improve the lives of marginalised groups or those living in disadvantaged

positions. Traditional planning literature that recognised the need to tackle this issue include; Jacobs

(1961) who highlighted the importance of daily social interactions in order to promote safety '*eyes of

the street (p54)*', Gehl (2011) who emphasises the need to create meaningful and attractive places

and Putnam (1999) who advocates that one's social capital is developed to be happier and find it

easier to get a job.

Chrono-urbanist literature centres around the general 'citizen' or 'residents' without clearly

identifying specific gender needs or differences in the impact of urban planning initiatives. There is

an implicit assumption in 'chrono-urbanism' that all people are impacted equally by urban planning.

Feminist planning literature, however, argues strongly that 'women' are adversely impacted by

urban environments and planning (Valentine, 1989; Markovich & Hendler, 2006; East, 2019). The

category of 'women' includes young girls, older women, disabled women, women of colour, poor women and any or all combinations. This contrasts with the identification of women in 'chrono-urbanist' theories as being a subset of a 'citizen'.

There is therefore an opportunity for feminist theories to contribute to the implementation of the 20-minute neighbourhood and uncover the experiences of those who are not usually considered to have specific needs within planning. It is important to state that the intersectionality of identities positions individuals differently and impacts lived experiences. Gender has an impact on identity, position in society and one's needs in addition to sexual orientation, race, age and class. Feminist theories scrutinise aspects of women's lives and experiences revealing perspectives that tend to be marginalised or presumed in research looking at 'citizens' or 'residents'. Focusing on gender differences and how they relate to social organisations highlights the oppression of women and the nature of oppression itself (Babbie, 2013). This paradigm challenges predominant beliefs which are often described as the values and norms of society which have been written by people representing a portion of society (Babbie, 2013). In recent years feminist literature has influenced and contributed to the interrogation of the normative nature of geography, urban structures, and planning.

2.2 Feminist contribution to neighbourhood design

Feminist planners emphasise that space is experienced differently by men and women, with a deeper focus on how the planned environment effects women in particular (Valentine, 1989; Greed, 1994; Miranda & van Nes, 2020). When attention is turned to women within the urban context, it reveals the following needs: safe infrastructure, access to affordable transportation and services in proximity to places of residence (Greed, 1994). In contrast to the chrono-urbanist temporal efficiency focus, the underlying theme of most feminist planning literature is access. The more accessible services are, the more supportive they are of women (Markovich and Hendler, 2006).

Mobility and accessibility are terms which are often used together. Mobility inequality has been referred to in terms of restricted 'transport accessibility (Pot, et al., 2021)'. Marginalised groups

such as women experience unequal access to mobility. Hanson (2010, p.6) argues that mobility is highly gendered and that these two factors "are completely bound up with each other". Women move in a world dictated by patriarchal conditions that inherently cause and promote gender exclusion. Women's experience of this physical environment continues this segregation.

Doreen Massey (1994) highlights that in the past planning concepts for women's lives placed them within the suburbs, contained within the 'private' sphere of urban life at home and in the neighbourhood. Men remained and moved in both the 'public and private sphere' gaining access to the cities. Often, the effect of these constraints were linked to low density neighbourhoods with segregated land uses and lack of essential services Massey (1994). More generally, these environments have been criticised for reflecting and reinforcing traditional gender divisions of labour (Massey, 1994).

Leslie Kern (2019) considers the synergy of both fear within cities and the spatial layout. Kern concludes that by ignoring gender the current mobility infrastructure does not cater for the needs of women. Kern (2019) drew from examples such as the lack of lifts in metro stations and designated spots for pregnant women. It has also been found that women use public transport at a far greater rate and frequency than men (Perez, 2019). Despite their higher usage of public transport, women's travel patterns have generally not been considered when planning these routes. The need for women to access transport at times of day out with commuting hours and women's trip chaining requirements are not taken into account (Perez, 2019).

Bushby (1996) stresses that the access to services can determine where women choose to live. In densely populated urban structures these include: services for older adults, access to childcare for families, and further community activities with a variety of programmes. She further recommends multi-serviced centres which can combine schools, nurseries, libraries and community centres in one specific location, a key feature of the 20 minute neighbourhood concept.   The suggestions of Bushby

(1996) are in line with Moreno's (2021) factors for accessible amenities although Bushby (1996) is more specific in how these would improve the lives of women.

A further strand of feminist literature, 'The Geography of Fear' by Valentine (1989), focuses on addressing the social patriarchal problems persisting within society and culture. This study finds that women's travel patterns were often shaped around the fear of violence by men resulting in women moving in cities in a significantly different pattern from men. Markovich & Hendler (2006) found that in contrast to Bushby (1996), women were less concerned with the 'physical' aspects of patriarchal planning such as neglecting access to public transportation, omission of facilities and services and a lack of affordable housing, but highlight more the importance of attitudinal and social variables. Further, Miranda & Van Nes (2020) agree that feminist planning should influence social planning and address issues such as fear and the need for safety. Both literatures agree, however, that a deeper perspective of women's needs in the relationship between the physical and social environment is fundamental to true planning for all 'citizens' .

Fear is one of the greatest barriers facing women in public spaces and this can impact their beliefs of 'right to the city' (Pateman, 1992, p. 227)**.** This fear comes from historic, governmental and societal attitudes relating to 'a woman's place' and how they should negotiate the world. From an early age girls are told to avoid specific places and avoid being out at times perceived to be more dangerous. There is also a continuing tendency to blame the victim, particularly regarding women. This includes reporting of victims being in the 'wrong place at the wrong time' and an underlying emphasis that they shouldn't have been in 'harms way' by wearing 'inappropriate clothing'. Feminist scholars argue that rather than placing responsibility on women, there is a need to create a society, environment and cities which do not accommodate such attitudes (Valentine, 1989; Perez, 2019; Miranda & van Nes, 2020).

Valentine (1989) seeks a social approach to break the cycle of gender divided public spaces and landscapes. The study proposes the re-education of those utilising public space to promote and

encourage its use by all. This would require planned interventions that addressed fear. In investigating the physical nature of the gendered nature of space Miranda & van Nes (2020) found a significant relationship between the spatial environment and street harassment. Key spatial variables that played a role in street harassment were: the temporal aspects such as time of day, the number of people on the streets, commercial land-use, opening hours of business and inter-visibility between buildings.

The temporal nature of chrono-urbanist planning policies such as the 20-minute neighbourhood invites a rather narrow view of efficiency and how the spatial infrastructure could accommodate it. While feminist planners have advocated closer amenities and improved transport services, it does not attribute a specific distance or time reference to what constitutes as 'closer' but rather inferrs the importance of social processes occuring within the space. Thus, whilst feminist planners could agree that the solution to urban planning could be the adoption of an urban chrono-urban planning, feminist literature has yet to come forward to call out how a time-based model may be understood by women. Exploring how women's expectations of their neighbourhood align with the 20-minute neighbourhood concept presents itself as an interesting question for study.

2.3 Corstorphine a 20-minute neighbourhood

The 20-minute city neighbourhood concept is being applied in various urban settings globally. This research will specifically look at Corstorphine, a neighbourhood in Edinburgh, Scotland. The 20-minute neighbourhood is defined by the Scottish Government as:

 "a place designed so that residents can meet the vast majority of their day-to-day needs within a 20-minute walk (approximately 800 metres) of their home." (Scottish Government, 2020a)

'*Day-to-day'* needs are seen as shopping, leisure activities, access to schools, local services such as a GP and access to work. The Edinburgh City Council further defines day-to-day needs as a means to access green space and a local environment which encourages active travel health and wellbeing- as well as wider connections across and between local neighbourhoods and further afield. In addition,

they emphasise the importance of affordable housing so that people can live in their places and afford to live there (Policy and Sustainability Committee, 2021b).

The stated goal is to allow residents the ability to meet most of their daily needs from within the community by strengthening pre-existing transport infrastructure alongside the public, private and voluntary sector partners. This includes walking, cycling, taking public transport or using wheelchairs. The outcomes of the 20-minute neighbourhood planning concept in Scotland is to decrease health inequalities, improve the local economy, improve liveability and quality of life and take climate action.

In a similar vein to Silva et al (2019) the Scottish based 20-minute neighbourhood addresses real estate and climate mitigation. It aims to encourage shared service delivery within buildings to provide accessibility for the local community (Policy and Sustainability Committee, 2021b). Research by O' Gorman & Dillon-Robinson (2021) supports the Scottish focus of the 20-minute neighbourhood to be on 'people rather than property' to build on the evidence of success from other countries. They present the following model (Figure 2) for the 20-minute neighbourhood in a Scottish context drawn from international best practice. They understand that stewardship, civic, spaces, resources and movement, as well as the 14 place standard categories, are 'crucial for places to perform as 20-minute neighbourhoods' (O' Gorman & Dillon-Robinson, 2021).
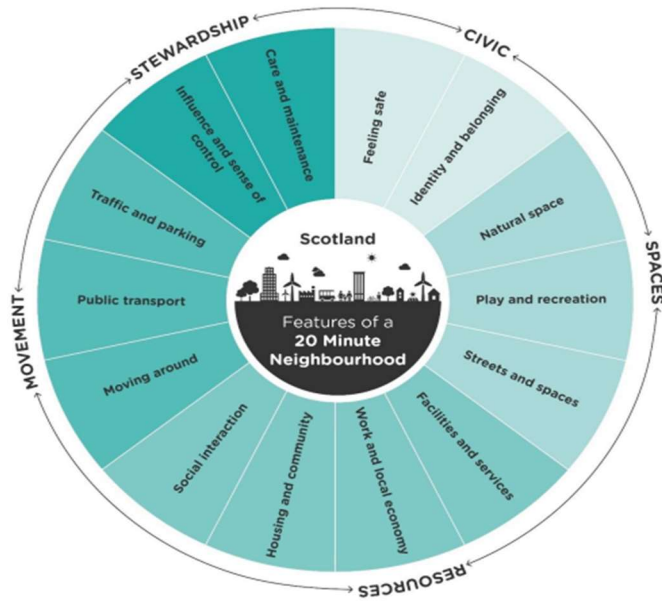
Figure 2: Features of a 20 minute neighbourhood in the Scottish context (O' Gorman & Dillon-Robinson, 2021)

The features of a 20 minute neighbourhood illustrated in Figure 2 are further developed and

expanded into a table of 'qualitative features and associated qualitative indicators' that are

suggested as a point for discussion. O' Gorman & Dillon-Robinson (2021) stress that, 'behaviour

change and community engagement is.. a crucial element to ensuring that places perform as 20

minute neighbourhoods'.

2.4 Corstorphine, Edinburgh

City of Edinburgh Council (2021b) has identified 19 key neighbourhoods within Edinburgh (Figure 3) as potential locations for implementation of the 20-minute neighbourhood concept. Corstorphine was identified as one based on its traditional town centre formation.
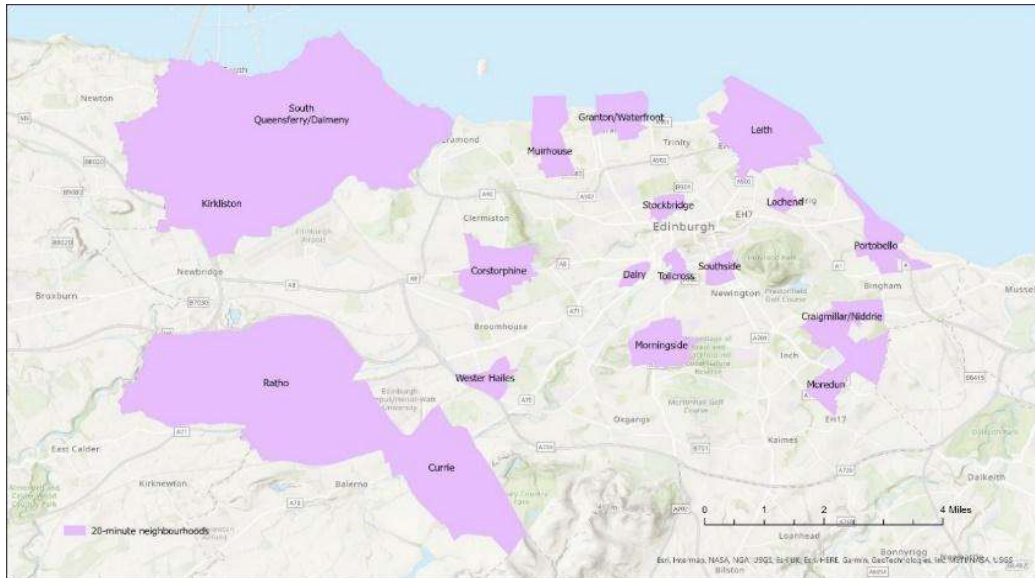

Figure 3: 16 council areas selected for 20-minute neighbourhood

Corstorphine village dates back to the early 18th century, and this village became an official part of Edinburgh in 1920. Since then, Corstorphine has gradually expanded into a neighbourhood made up of modern and post-war private and social housing and is considered a city suburb. In the last 20-30 years, there has been significant housing expansion with new estates being extended towards the city boundary. The natural neighbourhood of Corstorphine is around 4 km and the Corstorphine/ Murrayfield Ward has a population of 23,730. The area is divided by an arterial road, the A8, running along Glasgow Road and St Johns Road. In recent years the immediate environs of St John's Road have featured in the media as one of most polluted streets in Scotland, due to large volumes of traffic and narrow road layout (Fairne, 2020). The main shopping areas are located in close proximity to this route.

Corstorphine has numerous links to the city centre through frequent bus services along St Johns

Road and a connection to the airport. There is a train service from South Gyle station and a Tram

Stop at both Saughton and Ballgreen. The Scottish Index for Multiple Deprivation (SIMD), identifies

Corstorphine as a mixed neighbourhood area, with some areas of disadvantage and others with high

income and standard of living. (Scottish Government, 2020b). It has a number of green spaces,

primary and secondary schools and a wide range of services, businesses and community

organisations. The Edinburgh council assigned 'natural neighbourhood' boundary shown in Figure 4

does not coincide with participants' views as to what constitutes Corstorphine in 2022 with all

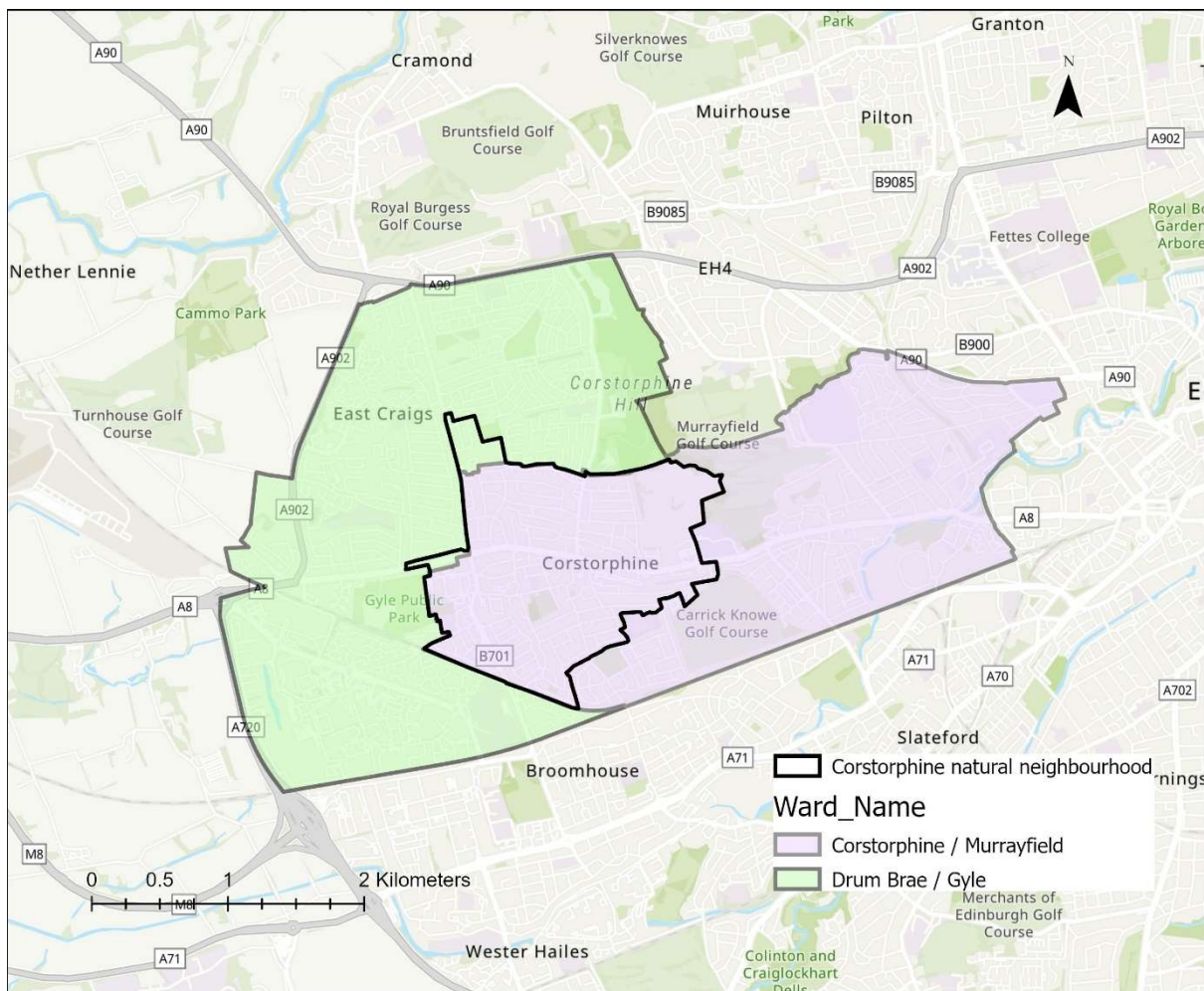extending this boundary into both the Dumbrae/Gyle and Corstorphine/Murrayfield (Moore, 2022)

Figure 4: Map of Corstorphine made by author data from (Moore, 2022)

This research focused on women's socio-spatial interactions in Corstorphine, a 20 minute neighbourhood in the City of Edinburgh Council area.   Women were actively involved in the research process reflecting on their experiences of living in Corstorphine and their narratives were analysed as to whether they aligned to the 20-minute neighbourhood in the Scottish context. The research provides an insight as to whether the 20-minute neighbourhood concepts feature in the lives of women living in Corstorphine.

The O' Gorman & Dillon-Robinson (2021) research informs this analysis of socio-spatial interactions and women's experiences in their neighbourhood. To illustrate the need for gender to be included when developing planning concepts, I propose the following preliminary conceptual model shown in Figure 5 that takes account of *women's experiences* of their neighbourhood. Figure 5 proposes that gender and social interaction influence each other and the other dimensions of 20 minute neighbourhood concept development, particularly those features relating to behavioural change. The awareness and designations of gender are important determinants of social attitudes and behaviours and move the conversation away from the traditional male world view.
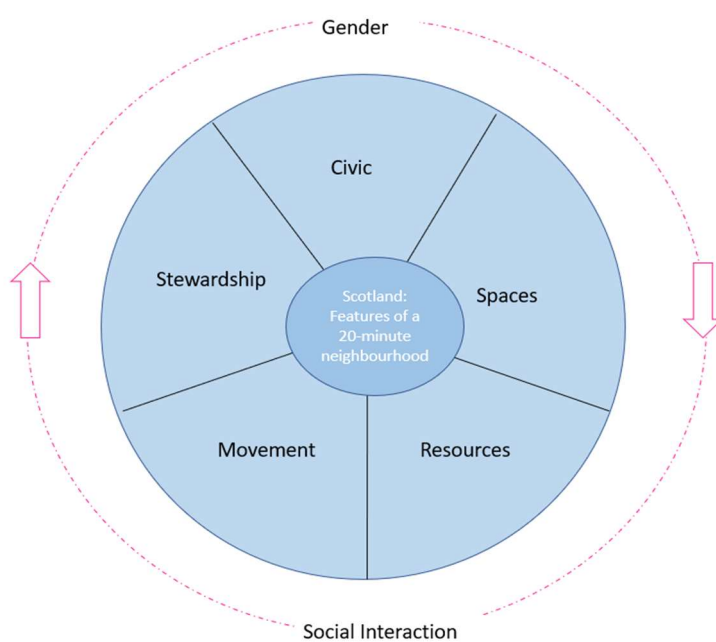

Figure 5: The Initial conceptual model:

Women's Experiences

3. Methodology

3.1 Researching women's views on their neighbourhood

Within the feminist community there is an agreement that there is a need to develop a range of research methods that address the commonalities and divergence in women's lives (Olesen, 2005). This approach encourages researching women's experiences using different methodological techniques. This paper utilises methods of feminist participatory action research in order to truly reveal the diversity of women's experiences and views.

It is important, firstly, to address the 'action' within this research. 'Action' is often used interchangeably with 'social change' (Reid, et al., 2006). This research defines action through viewing it as a '*multi-faceted and dynamic process that one can range from speaking to validate oneself and one's experience in the world to "the process of doing something,"*. There will be therefore three key actions which I hope will be achieved through this research:

- To empower women in Corstorphine to discuss urban planning and to listen to their views.
- To provide a recommendation on how to incorporate women's perspectives into the 20-minute neighbourhood of Corstorphine.
- To identify further research into this topic and stimulate the discussion of gendered urban planning within the planning profession and academia.

"*Feminist participatory action researchers seek to facilitate building knowledge to change the conditions of women's lives, both individually and collectively, while reconstructing conceptions of power so that power can be used in a responsible manner* (Frisby, 2008)" To understand the perspective of women it was important to gather the voices of a diverse range of women of different ages, race and classes and allow them to analyse their own experiences. For them, in a sense to '*become their own researcher'*. This research aims to work with participants in an attempt to

understand their lived experiences and how to put into practice solutions to problems of major importance to the community of women (Maguire, 1987; Reid, et al., 2006; Reinharz, 1992).

In order to link the theory to the action I chose to approach this topic through a case study including: a mapping-based survey, walking interviews and a focus group discussion. Researching within one neighbourhood creates a level of 'anchoring' in the everyday lives of the women and allows research methods to be used which are inclusive and accessible to people within the community (Gervais, et al., 2018). There is very little literature on women's expectation of their neighbourhood and the link between the 20-minute neighbourhood. Qualitative methods were chosen as the most appropriate way in which to understand women's experiences.

The Mapptionaire, Focus Group and Walking interviews together allow the participants to analyse their own and other women's experiences. Following Lamberts (2007) recommendation about being explicit when combining methods, the results will be discussed below in sequence of occurrence and relevance to the research questions. The Mapptionaire survey also served as a pragmatic element whereby people who were unable to attend the interviews or Focus Groups could participate.

3.2 Research Design

The first stage of the research process was to locate a case-study within Edinburgh. In consultation with local stakeholders Edinburgh City Council, Sustrans, Spatial Planning for Health, the Wellbeing Collaborative Group and University of Dundee, I identified the proposed 20-minute neighbourhood plan for Corstorphine. Corstorphine is currently going through a number of changes including: significant housing expansion, the implementation of a low-traffic zone and the relocation of the community centre.
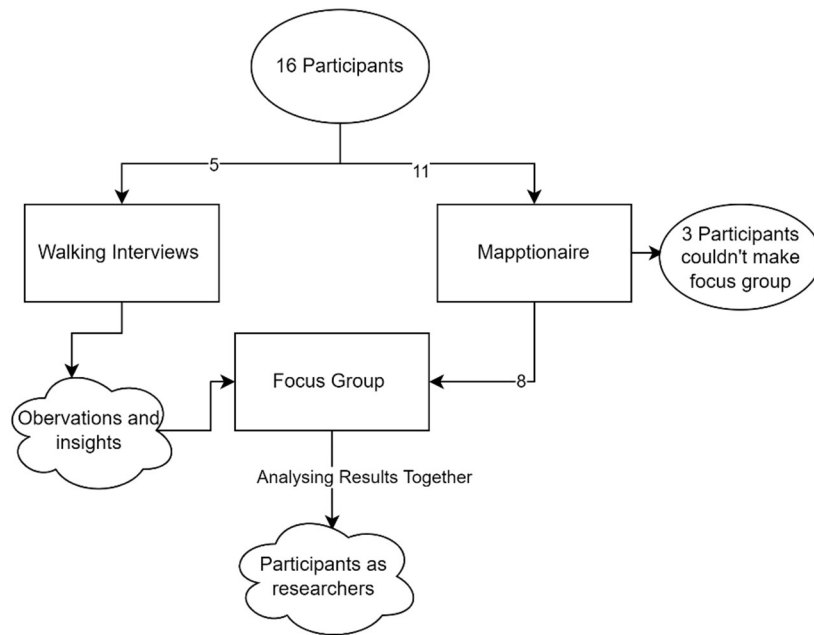
Figure 6: How the participants became researchers (Author)

Figure 6 illustrates how the participants became the 'researchers' within this study and provides a visualisation of the methods. Participatory mapping was utilised with the Mapptionaire survey tool as a method in order to understand how the women felt in relation to their spatial layout. Qualitative mapping provides for an interpretive, inductive approach to the exploration of place values and meanings without a predefined typology (Brown, et al., 2016). The Mapptionaire was used to stimulate discussion and reflection in the context of the spatial scale and to support a conversation within the Focus Group workshop.

The unique contribution of the walking interviews was that observations could also be gathered focusing on the spatial landscape on the walking routes. A walking interview provides a dynamic opportunity for the participant to connect with their local area physically, whilst observing and recollecting experiences of the neighbourhood (Jones, et al., 2008). I approached the interviews by following Chamaz (2006) 'intensive interview' method whereby as a researcher I expressed an interest and wanted to know more from the participants. This involved encouraging conversation through following up on ideas by asking 'That's interesting, tell me more about that'. Observations

were noted during the transcription stage and added to a map of the routes for further analysis. Some of the participant observations and comments from the walking interviews were incorporated within the Focus Group discussion to stimulate further analysis.

The Focus Group provided an opportunity to create a generative discussion linked to the issues raised in walking interviews and the Mapptionaire. The aim therefore was to understand the key priorities of women and what spatial and temporal elements they deemed important in their neighbourhood. The Focus Group discussion was the point at which participants became researchers of their own data. The research consisted of 11 Mapptionaire survey responses which were shared to those who signed up to the Focus Groups. The Mapptionaire survey consisted of eight sections: Defining your neighbourhood, drawing a boundary, favourite places in your neighbourhood, walking and cycling in your neighbourhood, driving in your neighbourhood, outside Corstorphine, safety for pedestrians and gender in Corstorphine. The mapptionaire survey was limited to the participants in the Focus Group so that the results could be discussed on a more personal level. The Mapptionaire survey was sent to the participants a week before the Focus Group and could be completed in their own time.

The walking interview and Focus Group participants were recruited locally through the Friendly Neighbourhood Corstorphine Facebook page, the Tesco community notice board and door to door recruitment. The walking interviews lasted between 20-50 minutes, whereby the participant guided me on their 'go-to- walk' around the neighbourhood. The walking interviews were conducted between the 13th and 20th of April 2022. The starting point of the Walking Interview was the participants 'favourite place' in Corstorphine. The interviews followed the same structure as the Mapptionaire survey. The Focus Group occurred on Thursday the 21st of April in St Annes Church within Corstorphine and lasted 1.45 hours. The Focus Group was centred around the same topics of the Mapptionaire and their own mapping was utilised as a prompt.

3.3 Data Analysis

The Focus Group and interviews were recorded and fully transcribed in order to categorise and interpret the data. The transcriptions were coded using a systematic inductive (data-led) approach in building theory. The analysis technique used is commonly referred to as grounded theory. Themes can be generated in a recursive and reflexive method. Grounded theory was traditionally initiated by Glaser and Strauss (1967) and focuses on filtering themes by repeatedly checking data in order for it to be "grounded" in the real world. Chamaz (2006) notes the flexible nature of grounded theory within ethnography and how it differs from other forms of more rigid data analysis. Following Chamaz's (2006) method this research took the following steps in analysing and building data.

- Prioritisation of the phenomenon and process rather than a description of the setting

- Comparison of the data at the beginning of the research - not after data is collected

The walking interviews and Focus Group generated 129 codes on atlas.ti and were a mix of in-vivo quotes and self-built codes. These 129 codes were grouped into 14 thematic code groups and then further refined after comparison with constructs from research literature. The process of analysis as noted (Hennink, et al., 2020) is a continual one which occurs within the writing of the results.

3.4 Ethical Conciderations

Ethics cope with what is wrong and what is right (Babbie, 2013). On a more practical note, ethics protect "protect the rights of individuals, communities, and environments involved in, or affected by, our research (Hay, 2021, p. 36)." This section with relevance to Hay's (2021) recommended ethical consideration.

Before taking part in the research, the participants are required to be fully aware of the implications of the research. Each participant will therefore receive an informed consent form which explains the detail of what the research procedure will look like, and what impact their involvement may have.

There are various techniques to ensure the anonymity of participants, including using pseudonyms and masking identifying characteristics (for example, occupation, location) in written or oral presentations of research findings. It is not however always possible to obtain full anonymity since the researcher will know the individual participants. It is therefore the focus of this project to keep the information fully confidential, whereby information regarding participants can only be accessed by the researcher and are secured.

Prior to the focus groups and interviews, the participants will be primed for the possibility of being upset by the topic. It is important to also remind participants that they can always leave the interview and withdraw their consent at any time.

3.5 Positionality

In studying this subject I recognise that I am a white cis able-bodied women and therefore there are experiences of race, disability and sexuality that I have not disadvantaged me. I have, however, experienced how my gender is perceived and treated. I understand the intersectional nature that gender plays within our society and that my experience of gender will always be linked to my background and upbringing.

I am originally from Corstorphine and was able to live in the neighbourhood during my research collection. I consider myself to have an insider experience of Corstorphine, however, as I did not attend the local schools I am somewhat of an 'outsider' in terms of the school friendship community. I took this opportunity to investigate women's experiences of living in my childhood neighbourhood as part of a planning-based ethnographic research study.

4. Demographic description of respondents

In total there were sixteen participants involved in this study. This included: eight participants for the Focus Group discussion who filled out the Mapptionaire survey, five participants for the walking interviews and a further three participants who only filled out the Mapptionaire. The women who participated in this study ranged between the ages of 20-69. Table 1 below illustrates the age groups.

Age Group	Number of Participants
20-29	3
30-39	3
40-49	4
50-59	3
60-69	3

Table 1: Age groups of participants

Table 2 illustrates that 6 participants had lived in Corstorphine all their lives, five of which attended the Focus Group and one who completed the Mapptionaire only.

Walking Interview Participants:					
Participant name/ number	**Originally from**	**Years living in Corstorphine**	**Area**	**Age**	**Children**
Demi	England	3 years	South Gyle	25	No
Corrie	Northern Ireland	6 months	Wester broom	26	No
Steph	Glasgow	14years	Corstorphine	48	Yes
Margret	Dumfries and Galloway	23years	Westerbroom	45	Yes
Josie	Edinburgh	15 years	East Craigs	60	Yes
Focus and Mapptionaire Group Participants:					
1 - Frances	Edinburgh	All her life	Clermiston	61	N/A
2 – Emily	Edinburgh	All her life	Carrick Knowe	42	Yes
3- Esther	Glasgow	21 years	WesterBroom	52	Yes
4 - Karen	Edinburgh	All her life	South Gyle	54	N/A
5 - Marion	Edinburgh	31 years	South Gyle	61	Yes
6 - Michelle	Glasgow	4 years	West Gyle	32	Yes
7 - Carla	Edinburgh	All her life	South Gyle	37	Yes
8 - Georgina	Edinburgh	All her life	Corstorphine	34	N/A

Table 2: Participant overview

23

Mapptionaire only					
(9) Amanda	Edinburgh	20 years	East Craigs	51	N/A
(10) Amy	Edinburgh	2.5years	-	45	N/A
(11) Abby	Edinburgh	All her life	Corstorphine	24	N/A

Table 2: Participant overview continued

From both the interviews and Focus Groups it was found that the majority of the women had children or had raised children within the neighbourhood. This included three of the Walking Interview respondents and approximately 6 of the Focus Group participants. As it was not necessary to disclose information regarding children within any of the research approaches some of the Focus Group participants who had children may not have chosen but chose not to share this.

All but one respondent were white, with Abby from the Mapptionaire respondents being Asian. Most of the participants were Scottish with the exception of three participants from England (1), Ireland (1) and Northern Ireland (1). While the Scottish participants were from a mix of areas, the majority were from the cities of Edinburgh (6) and Glasgow (3).

5. Results and discussion

The idea of asking a group of women to reflect on their experience of living in a neighbourhood and considering national or international planning concepts could be daunting.   However, as participants had chosen to take part in this research and had had the opportunity to use the Mapptionaire to consider their physical area, they were very enthusiastic to be involved in discussing their views on their neighbourhood.

Participants were asked to identify a range of places within Corstorphine where they felt good and bad. All 16 participants identified the positive impact of local green spaces.   While natural spaces identified in Mapponaire results were appreciated they generated a great deal of discussion on women's access to and fear of public spaces. Safety and fear were recurring themes for all 13 participants both in the walking interviews and Focus Group. Safety was a key consideration in almost every social interaction, day or night, with a consequent impact on how the women chose to travel; on foot, by bike or by car. Feelings of community were frequently cited (9 out of 13 participants) as an attractive feature of Corstorphine. Traffic and the ability to navigate the neighbourhood as a pedestrian, cyclist, child, aged or disabled person and also on foot, bicycle, or with disability were repeatedly mentioned.   Recent changes in service provision of banks, post offices and public transport have had a direct impact on the care and support provided by families for elderly or those without digital access. These changes had a direct impact on the lives of those caring for others, involving more time and complex trips requiring access to a car. The participants often referred to decisions about service provision being 'done to' rather than 'done with' them.

The Focus Group and walking interview narratives repeatedly identify themes that are referenced in the 20-minute neighbourhood model outlined by O' Gorman & Dillon-Robinson (2021). Many of these themes overlap within the participants' narratives and the presentation of results has incorporated this. This overlap reflects the lived experiences of the women's perspectives and is summarised in Figure 7. Many of the 'quantitative features and qualitative indicators' outlined in

Table 1 of O'Gorman & Dillon-Robinson (2021) Scottish 20 minute neighbourhood were strongly
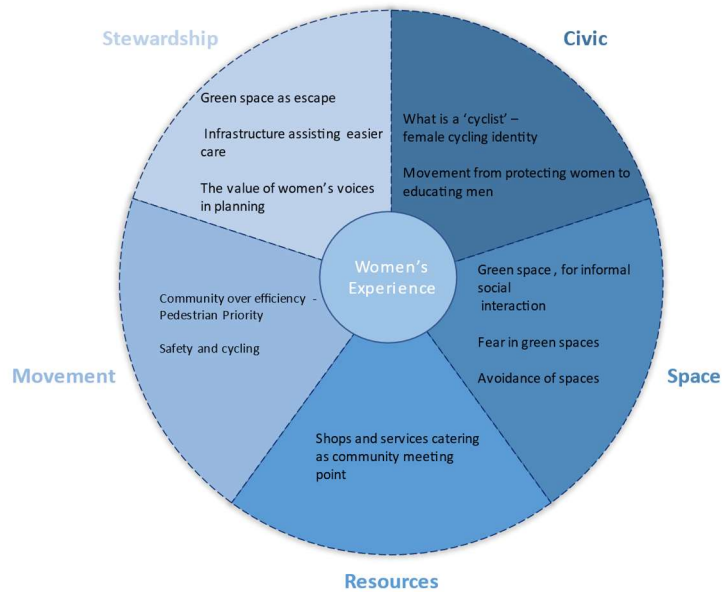
evident in themes raised by participants.

Figure 7: 'The women's experience' - Summary of Results

5.1 The juxtaposition of park experiences (Spaces and Civic Dimensions)

Generally, the women's experiences of and access to green spaces in Corstorphine were positive.

Green spaces have been found to provide significant social, economic, environmental, and health

benefits to city residents, and contribute to the quality of life in the urban setting (Tzoulas et al.

2007; Ambrey & Fleming, 2014)

'Spaces' are prioritised as a dimension in O' Gorman & Dillon-Robinson (2021) Scottish model of a

20-minute neighbourhood and access to green spaces is a key feature of the City of Edinburgh

Council's 20-minute neighbourhood plan. Access and use of green spaces are increasingly being

linked to improved mental health and wellbeing in urban life (Conradson, 2005). In Corstorphine,

Corrie, a walking interview participant, commented;

> Corrie: You can go into so many spaces where there are trees and plants. It's so green and so
>
> good for your mental health actually because there are so many trees.

However, just as urban space is utilised differently by men and women so too are green spaces (Schenker, 1996). For women, access to green spaces provides opportunities to develop social connections which in turn can improve one's health (Omoleke, 2013).   In the Focus Group there was discussion and a reasoned consideration of past and present play and sports resources in the local parks. As women tend to be the primary caregivers, they are more likely to be 'in the park' with children and 'the playpark' can be a meeting place for social interaction. One of the most positive spaces identified in the walking interviews and Focus Group was St Margaret's Park, in the heart of Corstorphine village. Georgina and Carla noticed this pattern on the Mapptionaire survey

> Georgina : "(from reflection on the Mapptionaire results) Looks like St Margarets Park is very popular. I think I go there everyday."

> Carla "I think that it's quite a hub of the community"

Figure 8: St Margarets park (Author, 2022)

The participants utilised St Margarets Park (Figure 8) for various activities; Corrie walked her dog and both Steph and Margaret went regularly to the park with their children. Regular use of the park by the women helped make it a 'hub'. Steph, a walking interview participant, stated:

> Steph: One of the kids who is now on the bus gets quite a lot of anxiety. We made quite an
>
> effort to go to the park after the bus and give the kids 20-minutes to play after school.

Steph integrated a visit to the park, as a health intervention, as a mother considering the care needs of someone else's child and as an opportunity for social interaction. Stopping at the park between collecting her children from school and going home, is an example of how women trip-chain their movements as a normal part of their lives. The gendered nature of trip-chaining could be argued to increase visits to the park and contribute to increased informal social interactions. The gendered differences in social interactions between men and women was noticed by Esther, a Focus Group participant:

> Esther: (during COVID-19) One of the hardest things for the husband of one of my friends
>
> wasn't that he couldn't play golf but that he couldn't sit down and chat with his friends
>
> afterwards. Women are a lot better at organising to meet with people informally. All formal
>
> facilities were closed in lockdown. The shared spaces are then even more important.

St Margaret's Park was seen as an important community asset for women within Corstorphine. It is a place where the participants felt comfortable, social, providing opportunities for children to play and adults to interact. This everyday interaction helped bolster a sense of community.

There is a sharp contrast in their discussion of participants' experiences of Gyle Park. Gyle Park is a large open space bordering a number of private and social housing estates. It has a playpark, cycle park, 6 football pitches and 2 sports courts. The Gyle Park was described by Michelle in the Focus Group, as *"there the wind is howling around and can be quite empty."*

Figure 9: Gyle Park (author, 2022)

The relationship between gender, safety and fear within green space has been highlighted in literature. Schenker (1996, p302) states that "Designed by men, these spaces reflect a mythic understanding of women's circumstances and needs". It is unsurprising then that safety and fear in urban spaces underpinned many of the issues raised in the participants' narratives. The fear of a bad experience discourages Demi (walking interview) from going through the Gyle Park at night :

> Demi:….If anything, I've heard that it's quite unsafe to walk through particularly at night. Going there.

> Demi: I haven't experienced anything first hand. But yeah, some of my colleagues… and just people I've bumped to have said don't go around these places at night.

Demi's comments illustrate how fear can spread by word of mouth, preventing women from accessing walking routes across the Gyle Park at night. The colleagues speaking to Demi have an incidence based mind-map as Valentine (1989, p386) describes where "these mental maps of feared environments are elaborated by images gained from hearing the frightening experiences and advice of others".

The 20-minute neighbourhood policy within Edinburgh implicitly assumes that all streets with pedestrian walking areas are accessible for residents to get to places within 20-minutes:

"Include significant placemaking improvements such as increasing active travel and sustainable transport, improvement to streets to make them greener and safer, and better access to parks and playgrounds" (Policy and Sustainability Committee, 2021c, p. 2).

The mobility patterns of women need to be taken into consideration within the 20-minute neighbourhood if walking routes are expected to be along poorly lit paths, narrow back roads and short-cuts, all features of Corstorphine's traditional village landscape. This echoes Jacobs' (1961) narrative of mixed gendered spaces being safer spaces. The lack of visibility of women using these spaces perpetuates this fear disproportionately to the actual danger. Demi has not experienced any danger and comments that:

> Demi: It could just be a sort of myth passed down over the years one person who told me this has lived there for around 20 years. But, no one has experienced anything as far as I know.

The 'myth' of danger on the Gyle Park route results in the exclusion of many women from using this as a shortcut. As a woman, making a choice to use this route, you would be 'asking for trouble' and this reflects Valentine's (1989) findings: *"The inhibited use and occupation of public space is therefore a spatial expression of patriarchy."* The negative consequence of women not occupying space is that the space becomes less used by women.

Demi's experience is in stark contrast to that of Karen, a focus group participant who is now unafraid to go through the Gyle Park at night. Karen explains the reason:

> Karen: It is interesting about safety because I was attacked at the age of 19 (in Corstorphine area). It was the middle of the day… Everyone had disappeared and someone came behind

me… The reason I have no fear of the night in Gyle Park is that it happened in the middle of the day. It doesn't matter what time you are out.

Karen's experience of being attacked on the street in broad daylight has had an impact on her perception as to what safety is and its relationship to night-time. This assault, in her teenage years, understandably continues to influence her perceptions and behaviour when using public space. Not having a fear of 'the night' does not mean that Karen does not have any fear when using urban spaces. The gendered nature of her response is exposed when Karen admitted that she was 'embarrassed' when she was young about this attack. She hoped no one saw her. This apologising for being the victim of a crime in public space has resonance for women who are attacked or harassed on the street and who often do not report this behaviour to the police. It becomes something they would rather hide than disclose as they may be blamed (Miranda & van Nes, 2020). Karen's story further echoes Valentines' (1989) view that lack of disclosure results in transferring the threat appraisal to the public space rather than onto men.

The nature of Karen's attack is particularly compelling as it illustrates that women's experiences and behavioural choices in negotiating the urban landscape becomes part of their resilience. Decisions on how and when journeys are made are all influenced by womens historic experiences in dealing with fearful situations. A slightly depressing reflection of what influences accessibility.

The City of Edinburgh Council, Policy and Sustainability Committee (2021a, p. 1) report on Women's Safety in Public Places recommended, 'the need for attitudinal, behavioural and structural change across society while also calling the council to action to improve women's safety in public places'. A further recommendation was 'to strengthen and expand existing safety measures already implemented by the Council with a gendered lens in all forward planning and implementation. While there is an acknowledgement that further funds will be required to implement these recommendations there is a reference to an altogether more challenging area of development;

'the implementation of a campaign targeted at men's thoughts, actions and behaviours around women's safety, as well as sustained activity highlighting how men can act as allies in promoting the safety of women in public spaces.' (Policy and Sustainability Committee, 2021a, p. 1)

Considerations of safety and minimising fear are key factors that influence how and when women move around their neighbourhood, influencing their social interactions and their involvement in the community. Women in Corstorphine moderate their movement and social interaction in response to perceptions of fear and the need to feel safe. While it is clear that green Spaces are an appreciated component of a 20 minute neighbourhood, in Corstorphine the research findings suggest that women's experiences and access are influenced by fear.

5.2 Why not cycle? - Identity and infrastructure (Civic and Movement)

Feelings of identity and belonging are intertwined throughout the narratives of participants' experiences and are inextricably linked to the gendered experience of Corstorphine. A theme that illustrated this link was the gendered experience of cycling, where the participants' discussion was bound with behaviours of movement, identity, safety and infrastructure.

Steinbach et al (2011) distinguish attitudes and behaviours that women have towards their own cycle habits and their concept of identity. There are many ways in which 'being a cyclist' can be perceived. Josie a walking interview participant noted that

> Josie: I wouldn't call myself a cyclist. I would say that I am a person who cycles. I don't use my bike for commuting. I don't use it for everyday use….. I would say cyclists are not your everyday person. That's a cyclist. They want to be bombing about it. They want places and lanes that are dedicated to them so that they can go on as fast as they can and tell their pals that they made it.

Despite her regular bike usage, Josie does not distinguish herself as a cyclist and identifies the cyclist as 'not your everyday person' nor something that she aspires to be. The feminist literature regarding female cycling identified that many women feel reluctant to be a cyclist due to associations with men cycling fast and aggressively. (Steinbach, 2011). The use of the word 'bombing' echoes this perception of fast paced aggression with which Karen does not want to be identified.

Participants highlighted the significant fear and safety concerns related to cycling which prevents them from participating. Georgina, a Focus Group member, is a leader of a women's bike group and commented that:

> Georgina: I see all types of perspectives and ideas about women and the barriers to cycling. The barrier to cycling is really not the potholes but the huge amount of traffic on the road. It doesn't matter how smooth the road is from a cycling perspective- if you are cycling next to loads of vehicles- doesn't really matter how good the road is. (see figure 10)

Georgina advocates a reduction of traffic as a way to encourage women to cycle within the community. The connection between improvements to walking and cycling and the level of traffic is clear. As Georgina states, segregated bike lanes could reduce the feelings of threat but traffic reduction initiatives may be more effective. Steph and Corrie, walking interview participants commented:

> Steph: It would be better if you were separated from the roads. Ironically there is a very good cycle path which goes from Roseburn to Leith but it is quite dodgy as a female on my own. It probably wasn't as busy as it is now actually- but I prefer to just cut through town." (See figure 9)

> Corrie: I almost always say more street lights or wanting more night buses. But I know that this kind of works against sustainability."

It is interesting that Corrie highlights the importance of addressing women's immediate safety needs regarding street lights but then expresses that long term environment considerations should take priority. However, to encourage women to cycle, a sustainable mode of travel, the priority would need to be safety.

Figure 10: Ladybridge segregated cycle path lane (Author,2022)   *Figure 11: Meadowplace Road (Author, 2022)*

Josie summarised a solution to the recurring theme of safety in the Focus Group discussion, stating that "*better education for men*'' was needed. Josie identifies men as the cause of her fear on cycle paths and roads. In contrast to Margret's view, Josie suggests 'safeness' is related to how men are educated, not the level of available infrastructure.   She suggests that men's inherent misogyny towards women is the real danger.   This echoes the findings of City of Edinburgh Council's Policy and Sustainability Committee report on Women's Safety in Public Places (2021a, p. 2), which highlights: 'the need to address the main issue affecting women's safety – the actions and behaviours of men that perpetuate fear for women.'

Throughout the UK, posters, Figure 11 below, have been placed in railway stations in order to challenge and deter street harassment of women. These anti-crime methods are progressive. They visibly state that such behaviour is criminal. This type of campaign helps validate women's

experiences of the unacceptability of this behaviour and could be displayed in all areas of
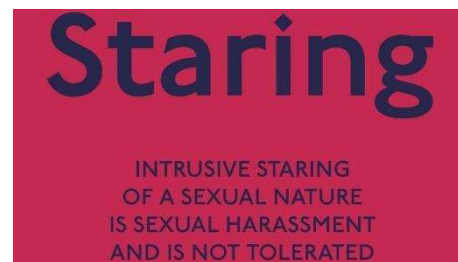
movement in urban spaces.

Figure 12 :Anti Harassment Posters (UK Rail News , 2022)

5.3. Services and amenities for the community (Resources)

> Corrie : It's lovely out here… it's nice having the village with the shops, cafes and walking to
>
> the High Street. I can see how Corstorphine could be planned in mind with the 20-minutes of
>
> walking and cycling everywhere- it really clicked for me actually. It almost seems like
>
> Corstorphine was built deliberately so that you can access everything within 20-minutes of
>
> walking.

For Corrie, Corstorphine fulfils her needs in terms of facilities and services. She notices the similarity

between the 20-minute neighbourhood concept and the layout of Corstorphine. It is important to

clarify that Corrie refers to the traditional Corstorphine village area.   Many villages in Scotland

would have been walkable before the introduction of the automobile and this is true of Corstorphine

Village. While most participants agreed that the traditional Corstorphine village was well served in

terms of public transport and services, others argue that there was a lack of integration of the newer

housing estates and suburbs. Participants who lived in the newer expanded areas of the

neighbourhood had a different view on access to services.

This was particularly noticeable in South Gyle area where Focus Group women highlighted that there was an absence of community based services within this area. Michelle noticed this particularly in her childcare:

> Michelle: I do feel that areas such as South Gyle lack community because of the (lack of) community classes. I want to make the point that all my classes for my daughter were in Corstorphine.

The lack of community classes within a short distance from Michelle's home increases the time she has to spend travelling and trip-chaining to deal with childcare. Access to local facilities and their absence were mentioned frequently in the Focus Group and walking interviews. Participants agreed that local services and facilities increased their satisfaction with their neighbourhood. A lack of facilities made them feel isolated and reduced feelings of community.   Michelle goes on to say:

> Michelle: I think South Gyle has been created like the community hub is the Gyle – but that is just not the case. That is a big district out of town shopping centre.

Local shops were frequently mentioned as a place that brought the community together. Karen reminisces on the popularity of a shop which closed down in East Craigs:

> Karen: It was a community when there was a Safeway. That's how we considered Corstorphine - that was a real hub at that Safeway- everyone went.

Again, the importance of the informal social interactions which occur within shopping spaces were an essential component to the women's sense of community. Kirsty, a Focus Group participant, jokes:

> Kirsty: I honestly cannot go into Corstorphine Tesco because I know too many people. Your children say 'why does it take you an hour to get a loaf of bread?'.

Steph, a Focus Group participant was very positive about the accessibility of services in Corstorphine commenting;

> Steph: I don't remember the last time I had to go into the city and get something. I can either cycle to the Gyle (Shopping Centre) in 7 minutes or I walk to the High Street in Corstorphine. Or my doctors in East Craigs. The things I couldn't get I would probably just order online and get them delivered.

These contrasting views all support the proximal arguments for the 20 minute neighbourhood. However, the need for services and resources to reflect and promote community cohesion seem to be missing. Just as the women experienced with St Margaret's park, shopping facilities can also provide a sense of community and facilitate social interactions. Again it can be argued that there is a strong link here with the gendered responsibilities of women and their mobility patterns.

5.4 Perspectives on traffic volume and pedestrian priority (Movement)

The City of Edinburgh Council 20-minute neighbourhood plan seeks to *'reduce the need for car travel'* (Policy and Sustainability Committee, 2021c)*.* In order to do so there needs to be a shift towards a narrative which reduces the importance of the car in public space. The women in this study were concerned about two factors when it came to the high volume of traffic.

Figure 12: St Johns Road (Author, 2022)

All the participants in this research expressed concern about the large volume of traffic on St John's Road (Figure 12) which made the shopping and recreational experience unattractive. This is an example of 'male centred planning' where the main shopping road is designed to accommodate commuter efficiency rather than the people living in the area (Perez, 2019). Michelle and Demi, from the Focus Group, know that the main shopping street is a '*major trunk road'* and comment on the impact the traffic has:

> Michelle: They aren't that nice places to shop because of how busy the road is. I know that bars like the Torphin or WhiteLady have outdoor seating but you wouldn't. It's not nice when you are sitting with the buses and cars.

> Demi: I think historically it used to be a village. I don't really get that sense at all from living here. I think partly because you've got all this traffic. I've heard this is like the busiest road in Edinburgh… I don't really get that sense of a 'village feel'.   We've had to dodge quite a lot of traffic.

Demi further emphasised this by stating 'There is nowhere to just sit and chill (on the main street)'. Relaxing in public space is something which is harder for women, to 'blend in' and not be noticed or interrupted. Building a society which accommodates the 'blending in' of women in public space is important to address the 'ultra-visibility of women' and further encourage women's activities to not remain in the traditional private spheres (Massey, 1994). An initial step however would be to create infrastructure which would allow this to happen.

The second issue raised by participants was the impact the large volume of traffic had on their ability to navigate the local pathways and assert their right to space. Small narrow pathways are a feature of Corstorphine, a fact that was repeatedly recognised during the walking interviews and in Focus Group discussion. Marion describes her struggle:

> Marion: There are definitely areas where you have to cross over to get a wider bit of
>
> pavement if you have a pram or you have a wee one (small child) and you're holding them
>
> by their hand- you maybe start off with a bit of pavement. It either disappears so quickly or
>
> it goes into such a narrow area, you have to go to the other side.

The issues with Corstorphine pavement and pathway infrastructure echoes that of Leslie Kern's (2019) chapter on the 'City of Moms'. The lack of consideration of the infrastructure for mothers or child carers provides evidence of the male centred focus in the neighbourhood planning. Narrow, non-continuous pathways reinforce the impression that the car is more of a priority than the pedestrian.

Emily, a Focus Group participant, expressed her difficulties with cars parking on the pavements. She recounted an episode where she had to assert her right to space that resulted in a confrontation with a car driver in Kirk Loan.

> Emily: In lockdown my elbow caught a wing mirror of a very flashy audi because it was
>
> parked on the pavement and he said 'watch where you are going'.   ' I said you're on the
>
> pavement.' He said, 'I pay road tax', '..but this is the pavement', I said. 'You don't have to
>
> pay pavement tax and you just need to move your fat arse' he said. I was like 'Lovely thanks
>
> very much'.

The embodied nature of women within public spaces is a prominent factor to consider when planning a gender inclusive neighbourhood. The ultra-visibility of the women's body as a public property directs how they use space. Leslie Kern (2019) connects the duality of women's visibility with the concept of the *flaneuse,* where women are both simultaneously hyper-visible and invisible on the streets (Elkin, 2016). The unnecessary body-shaming suggests a type of behaviour that could be considered misogynistic and returns discussion to women's fear of speaking up about abuse.   In claiming her rightful space, Emily was verbally attacked. Emily's sarcastic response illustrates a

familiar reaction from women to this type of sexual harassment – walk away, refuse to challenge the perpetrator for fear of violence and appear to 'laugh it off' and move on.

Emily's confrontation with the pavement parker also demonstrates the imbalance between the pedestrian and the car driver. The space the car takes up is greater than that of the pedestrian and is therefore considered more important. This is a clear demonstration of the 'The arrogance of space', a concept coined by Mikael Colville-Andersen, whereby the urban space is dominated by design for cars rather than pedestrians (Gaete, 2022). Margret, a walking interview participant, reflects:

> Margret: The (pedestrian) crossing at the little junction on St John's Road. You don't cross until you see the whites of the drivers' eyes. Because they are seeing the lights that are ahead of them rather than (what is) in front of them. A lot of the time they go right through that crossing.

Margret's vigilance while crossing the street illustrates the lack of attention drivers show to pedestrians.   The description also emphasises how long she waits till she crosses. The implication being that the right of priority is with the car, not the pedestrian.

Marion and Emily related their experiences and opinions of walking and cycling:

> Marion: I am in healthcare and one of the biggest problems we deal with is obesity - the government has thrown millions at it and it is making no difference. The reality is people are lazy- they would much rather get in the car, drive to where they are going and do as little as possible. And (they) don't do any exercise- so to even imagine any of these people getting on a bike would be crazy.

> Emily: You are saying that people are lazy. But people have very very busy lives, they are managing full time jobs. You are managing kids to go to school and also trying to maintain

> your own identity and your own interests. Going to the gym- there are only 24 hrs in a day-
>
> you do end up having to accommodate all these things by a quicker mode of transport.

Marion's comments reflect the need for transport to be considered when addressing health

priorities, the 20 minute neighbourhood plan and the behaviours that Weng, et al. (2019) promote.

Marion works in the health service but struggles to access her employment by bike. While Marion

emphasises that laziness is the biggest hurdle, at the same time she recognises the multiple

behaviour changes that are needed to promote cycling. In challenging the laziness statement, Emily

stresses the need for women to juggle competing priorities to maintain a type of balance in life. Her

statement encapsulates women's trip-chaining mobility habits, where a journey is often not just for

one purpose. This has been found to be a major contributor to the low take-up of cycling by women.

(Ravensbergen, 2020) . It is striking that Emily sees the quickest short-journey solution as the 'car',

rather than using public transport, walking or wheeling, as the 20-minute neighbourhood promotes.

For Emily the busyness of people's lives requires efficient and direct transport to 'fit everything in'.

The 20-minute neighbourhood planning policy depicts a relationship where an improvement in the

physical infrastructure allows all pedestrians efficient access to amenities. What this perspective

does not acknowledge is that women's mobility patterns are dictated by social responsibilities and

as a result can be viewed as "inefficient". A dominant car culture dictates their responses to the

current infrastructure. Where infrastructure is not gender inclusive, it has been found that women

must change their travel pattern, avoid travelling or take the car.

5.5 Caring and valuing the voices of women (Stewardship)

A recurring theme in the narratives recorded for this research was the invisible, unpaid caring role

and work that women integrate into their daily lives and how this impacts their navigation of urban

space echoing the narrative of Sayer (2005). During Steph's walking interview, we walked up

Corstorphine Hill which gave an opportunity to discuss the value of green spaces whilst working at

home. Corstorphine Hill is a popular spot with the participants and was labelled by many as their favourite spot in the Mapptionaire results. Steph reflected that going up Corstorphine Hill was a positive aspect in her life: "We came up here when we were in lockdown and it helped the sense of when you feel trapped". Accessing the green space of Corstorphine Hill (Figure 13) gave Steph the opportunity to escape her house and its related responsibility.

> Steph: I mean I love the garden but you can also see all the work that is needed doing. It is really important to get away from the house. You have your work, work, then you have your housework. So, as a doer you are always seeing things that need done. When you are on a walk it gives you that distance.

Figure 13: Corstorphine Hill (Author, 2022)

Steph's statement illustrates how green spaces play a part in her leisure time taking her away from the 'things that need done'. It has been found that women's leisure quality is often lower due to 'unpaid work' which includes family time and leisure time, involving invisible effort, such as the 'coordination and planning, emotion and kind work, and the production of intimacy and sociability'

(DeVault, 2000, p. 487). Women do over 75% of the world's unpaid work and this influences their attitude towards their home, the surrounding environment and their mobility patterns (Perez, 2019).

Women are more likely to participate in unpaid care of older adults and their own family and in doing so are often referred to as 'Sandwich' carers. Stuck in the middle they are supporting and providing care to younger and older generations, delivering an invisible service that is invaluable to a functioning society. According to AgeUK There are 1.25 million sandwich carers in the UK and 68% (850,743) are women (Age UK, 2022). For Emily, access to the gym is something she needs to constantly 'manage' between older-adult care and work.

O' Gorman & Dillon-Robinson (2021) highlight that the 20-minute neighbourhood concept should incorporate infrastructure for older adults to 'Age-in-place'. Ageing-in-place has been promoted recently by the UK government as an element to tackle the social care crisis. The concept proposes that staying in your own home will not only benefit the older person in terms of their quality of life, but will also be a cost effective solution to the problems of an ageing population (Sixsmith & Sixsmith, 2008). 'Ageing in place' however, is likely to exacerbate care demands and responsibilities on female members of the family.

Women's invisible roles as carers are an important intersection point between issues of mobility, accessibility and fear. Women are far more likely to participate in unpaid care and its provision has been bound up with female identity (Jarvis & Worth, 2004; Sayer, 2004). The stigma that caring receives has often been attributed to the lack of recognition of care in 'the good life' western philosophy (Fisher & Trono, 1990). Care is a highly feminised behaviour, intertwined with prevailing economic and patriarchal culture that is reluctant to recognise the role of unpaid women caregivers.

 The accessible nature of the Gyle Shopping Centre was seen as something which allowed Kirsty to negotiate her care responsibilities and was anchored within the routines supporting Kirsty's mother and grandmother. Just as Corstorphine Hill helped make Steph's life more manageable, Kirsty

welcomed the Gyle Centre's accessibility in making caring and shopping simpler for her grandmother:

> Kirsty: My 93-year-old grandmother lives alone. Her Saturday is that we go to the Gyle (Shopping Centre). I take her for a cup of tea upstairs and go to Morrisons and a trip to the post office.

Davis (2022) has highlighted the role of the spatial layout in accommodating care provision. The accessible nature of the Gyle Shopping Centre made it easier for Kirsty to provide support and caring to family members. While it necessitates the use of a car, this type of trip would have been very challenging in Corstorphine's St John's Road.

Many of the issues raised in the discussion and participants' narratives hint at a lack of empowerment to promote women's perspectives in planning concepts. The question, however, remains, what can we do about this? Community Councils, the local tier of Scottish planning representation, are often perceived as 'old boys clubs', making it hard to attract women members. Geogina who attends Corstorphine Community Council states; '*It's not all that boring*' . However, the challenge of involving women in traditional power structures requires genuine attitudinal and behavioural change from the top as well as the community. Emily highlights that the needs of residents was not taken into consideration with the removal of the bank in the Gyle Centre and she had to deal with the consequences:

> Emily: The only place (specific bank) that is open now is the branch at Cameron Toll. All she (Grandmother) wants to do is some (non online) banking and you are treated like a pariah – that is awful – all because she just wants to get her money. There is this assumption that the population is younger. They are not open at night- if we (family) are supporting older people in doing this (banking) then we have to do it at weekends.

Georgina: It is also very difficult for an older person to go to Cameron Toll, if they don't

drive. How does an elderly person get to Cameron Toll?

Emily: Granddaughter with a car!

The Focus Group created a safe space where the women could ask questions, share experiences and

discuss their experience of the built environment of Corstorphine. The focus on planning and the

concept of the 20 minute neighbourhood generated discussion on the women's understanding of

their locality. Their involvement in this discussion brought awareness of their role in shaping their

community. Frances, a Focus Group member stated:

Frances: I have learned a lot about Corstorphine from the people here. I enjoy the

conversation. It's interesting to hear other people's perspectives.

Karen, a Focus Group member even joked *'same time next week'* followed by:

Karen: I was a bit apprehensive coming, but I have really enjoyed it. The intelligence and

really informative points of view, I don't have children and I usually drive everywhere but it's

really been an eye opener hearing everyone's perspective

The Focus Group participants felt comfortable asking questions and discussing neighbourhood

planning in a 'women only' meeting-space. Greed (1994) highlights that women's voices are

regularly left out of planning processes, and that women tend not to express their ideas as they will

not be perceived as important. Margret, a walking interviewee states;

Margret: I think it's difficult and there are things that could be done, but they're probably

not huge on the top of the list at all. Because there's more urgent things that will need to be

looked at and spent money on. So I don't imagine MP's or anyone prioritising putting a zebra

crossing in place so that kids can go to the library.

Margret's lack of confidence about the value of her idea is reflected in the reality of a planning process that does not prioritise women's priorities.   Women's understanding and negotiation of urban space is heavily influenced by their care, work and home responsibilities. Their lived experience of space is very different to that of men and their absence in the planning process results in the loss of insights on behavioural choices and the impact of decisions.

6. Concluding remarks and recommendations

The purpose of this study was to understand how the 20-minute city planning concept aligns with women's expectations of their neighbourhood. The 20-minute neighbourhood is a relatively new concept and unfamiliar to many people in Scotland. Globally, however, it is gaining traction. Recently the World Bank published its first handbook on Gender Inclusive Urban Planning and Design (2020) on adapting cities for women. This research supports the need for active inclusion of women's views into new concepts of inclusive cities and urban planning.

The findings of this research illuminate women's experiences of using urban space in a traditional neighbourhood, through their observations and reflections on social interactions within Corstorphine. Participants' experiences of gender exclusion within these spaces were often subtle though occasionally overt. The lived experiences of these women reflected social practices inherent in a gendered, prevailing, socio-spatial planning process or what Leslie Kern may call a " city of men." (Kern, 2019).   Kern (2019) argues that 'male space' is often imbued with exclusionary urban planning policies towards women.

O' Gorman & Dillon-Robinson (2021) propose the Scottish "20 -minute neighbourhood" be interpreted through the dimensions of stewardship, movement, civic, resources and space. The findings of this research challenge the idea that the 20-minute neighbourhood should simply be the reconstruction of the spatial environment in favour of efficiency. Rather, I found that implementation of the 20-minute neighbourhood concept sustains a delivery mechanism that excludes women by assuming a male-centric 'citizen' perspective on inclusion. This assumption, used when consulting with neighbourhoods, minimises or ignores women's perspectives. Further, the results of this study show that if the focus of 20 minute neighbourhoods is on efficiency rather than the lived experiences of residents, then this will not address the issues which influence behavioural change, such as reduced car use.

These study findings echo those of existing research on patriarchal exclusion in urban space. They also highlight the need for social and humanistic perspectives to be valued and included in urban planning. Participants recognised that local places and services were essential for relaxation, socialisation and feelings of community cohesion. When women discussed their experiences of safety, fear, care, walking or cycling, they referenced the multi-identity of women and the conflict between traditional gender roles and maintaining a sense of self. The creation of inclusive spaces as a development of the 20-minute neighbourhood concept requires implementation to be undertaken through an intersectional lens. In this study, '*the female experience'* of the neighbourhood plan clearly reveals the interactive relationship between gendered spatial practices and the need for further research on methods that engage women in planning to enhance their agency . This study would therefore recommend the following:

6.1 Recommendations

1. A thorough, informed consultation with women residents on areas they perceive to be unsafe, day or night. Consideration, consultation and implementation of identified measures that improve women's safety in the urban neighbourhood.

2. Prioritisation of initiatives, infrastructure and resources that reduce traffic levels in the locality and promote walking and wheeling.

3. Review and prioritisation of remedial work on pavements and paths to promote access to walking and wheeling, so women and others can move safely within their locality.

4. Introduction of street signage that clearly states 'Pedestrian and wheeling Priority' to promote behavioural change and reduce car use.

5. Promotion of inclusion and diversity in planning provision, by the integration of gender-inclusive approaches in all proposals from the outset.

6. Recognition of the caring roles and responsibilities in women's lives and the creation of accessible services and locations that cater for their movement in neighbourhoods.

7. Training of planning professionals on community consultation approaches, that recognise women's needs and the constraints to their involvement in planning processes; and that foster agency in their responses to planning initiatives.

7. References

Age UK, 2022. *Breaking Point - the social care burden on women.* [Online]
Available at: https://www.ageuk.org.uk/our-impact/campaigning/care-in-crisis/breaking-point-report/#:~:text=There%20are%201.25%20million%20sandwich,being%20in%20this%20age%20group.
[Accessed 03 07 2022].

Ambrey, C. & Fleming, C., 2014. Public Greenspace and Life Satisfaction in Urban Australia. *Urban Studies ,* Volume 51, p. 1290–1321.

Babbie, E., 2013. *The Practice of Social Research – International Edition.* 13th ed. Wadsworth: Cengage Learning.

Brown, G., Strickland-Munro, J., Korbryn, H. & Moore, S. A., 2016. Mixed methods participatory GIS: An evaluation of the validity of qualitative and quantitative mapping methods. *Applied Geography,* Volume 79, pp. 153-166.

Buse, C., Martin, D. & Nettleton, S., 2020. Conceptualising'materialities of care': making visiblemundane material culture in health and social carecontexts. *Sociology of Health and Illness,* 40(2), p. 243–255.

Bushby, A., 1996. Intensified communities meet women's needs.. *Women & Environment,* 15(3), p. 28.

Calafiore, A., Dunning, R., Nurse, A. & Singleton, A., 2022. The 20-minute city: An equity analysis of Liverpool City Region. *Transportation Research Part D ,* Volume 103111.

Chatzitheochari, S. & Arber, S., 2012. Class, gender and time poverty: A time-use analysis of British worker' free time resources. *The British Journal of Sociology,* 63(3), p. 451–471..

Conradson, D., 2005. Landscape, care and the relational self: Therapeutic encounters in Rural England. *Health and Place,* pp. 337-348.

Craig, L. & Mullan, K., 2010. Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark.. *Journal of Marriage and Family,* 72(5), p. 1344–1361..

Davis, J., 2022. *The Caring City: Ethics of Urban Design.* s.l.:Policy Press.

DeVault, M., 2000. Producing Family Time: Practices of Leisure Activity Beyond the Home. *Qualitative Sociology ,* Volume 23, pp. 485-503.

East, M., 2019. Mapping the 'Presency' of Women in Cities. *Ecocycles,* 5(2), pp. 1-5.

Elkin, L., 2016. *Flaneuse: Women Walk the City in Paris, New York, Tokyo, Venice and London.* 1 ed. s.l.:Vintage Digital .

Erman, T. & Hatiboglu, B., 2018. Gendering Residential Space: From Squatter and Slum Housing to the Apartment Estates in Turkish RenewalProjects. *Cities and Community ,* 17(3), pp. 808-834.

Fairne, R., 2020. *Two Edinbugrh streets revealed among the six 'most polluted' in the whole of Scotland.* [Online]
Available at: https://www.edinburghlive.co.uk/news/edinburgh-news/two-edinburgh-streets-revealed-among-17594098
[Accessed 27 07 2022].

Fisher, B. & Trono, J., 1990. Towards Feminist Theory of Caring. In: E. Abel & M. Nelson, eds. *Circles of Care: Work and Identity in Women's Lives.* Albany: State University of New York Press, pp. 35-62.

Friends of Corstorphine Hill, 2022. *Friends of Corstorphine Hill.* [Online]
Available at: https://www.corstorphinehill.org.uk/corstorphine-hill
[Accessed 07 19 2022].

Frisby, C. R. a. W., 2008. Continuing the Journey: Articulating dimentions of Feminist Participatory Action Research (FPAR). In: H. B. Peter Reason, ed. *The SAGE handbook of Action Research.* London: SAGE Publications, pp. 93-106.

Gaete, C. M., 2022. *"The Arrogance of Space": Mapping The Unfair Distribution of Public Space at Urban Intersections.* [Online]
Available at: https://www.archdaily.com/800903/the-arrogance-of-space-mapping-the-unfair-distribution-of-public-space-at-urban-intersections#:~:text=at%20Urban%20Intersections-,%22The%20Arrogance%20of%20Space%22%3A%20Mapping%20The%20Unfair%20Distribution%20of,Public%20
of,Public%20
[Accessed 20 07 2022].

Gehl, J., 2011. *Social Science & Medicine.* Washington: Island Press.

Gervais, M., Weber, S. & Caron, C., 2018. *Guide to Participatory Feminist Research,* Montreal, Quebec: McGill University.

Greed, C., 1994. *Woman and Planning: Creating gendered realities.* 1st ed. London: Routledge.

Hay, I. & Cope, M., 2021. *Qualitative Research Methods in Human Geography.* Fifth Edition ed. Ontorio: Sheridan Books.

Hennink, M., Hutter, I. & Baily, A., 2020. *Qualitative Research Methods.* 2nd ed. London: Sage.

Jacobs, J., 1961. *Life and Death of Great American Cities.* New York: Vintage: Division of Random Bookk.

Jarvis, A. & Worth, A., 2004. The development of a screening tool to identify carers in a general practice by a large-scale survey: the experience in one Scottish general practice.. *Journal of Clinical Nursing,* Volume 14, pp. 363-372.

Jones, P., Griff, B., Gibbs, H. & Hein, J. R., 2008. Exploring Space and Place with Walking Interviews. *Journal of Research Practise ,* 4(2), p. 2.

Kern, L., 2020. *Feminist City.* s.l.:Verso.

Lambert, S. & Loiselle, C., 2007. Combining individual interviews and focus groups to enhance data richness. *Research Methodology,* 62(2), pp. 228-237.

Maguire, P., 1987. *Doing participatory research: A feminist approach..* Amherst: The Centre for International Education, University of Massachusetts..

Markovich, J. & Hendler, S., 2006. Beyond "Soccer Moms" Feminist and New Urbanist Critical Approaches to Suburbs. *Journal of Planning Education and Research,* Volume 22, pp. 410-427.

Massey, D., 1994. *Space, Place and Gender.* 3 ed. Miniapolis: Polity Press.

Mattingly, M. & Blanchi, S., 2003. Gender differences in the quantity and quality of free time: The US Experience. *Social Forces,* 81(1), pp. 999-1030.

Meyer, M. R. U. et al., 2019. Systematic review of how Play Streets impact opportunities for active play, physical activity, neighborhoods, and communities. *BMC Public Health,* Volume 19, p. 335.

Miranda, J. & van Nes, A., 2020. Sexual Violence in the City: Space, Gender, and the Occurrence of Sexual Violence in Rotterdam. *Sustainability,* 12(7609), pp. 20-29.

Moore, T., 2022. *Edinburgh Ward Boundries & Natural Neighbourhoods.* [Online]
Available at:
https://data.edinburghcouncilmaps.info/datasets/dc96624b1db849db926f59806e287d44_24/about
[Accessed 02 04 2022].

Moreno, C. et al., 2021. Introducing the 15-minute city: Sustainability, Resilience and Place Identity in Future Post-Pandemic Cities. S*mart Cities,* Volume 4, pp. 93-111.

Morgan, C., 2022. *Playful Streets: Supporting Play in the Community,* Edinburgh: Scotlands Play Strategy .

O' Gorman, S. & Dillon-Robinson, R., 2021. *20 Minute Neighbourhoods in a Scottish Context,* Edinburgh: ClimateXChange.

Omoleke, S. A., 2013. Green Space, Gender and Health: A Re-Examination of the Literature. *Bulletin of Environment, Pharmacology and Life Sciences,* 1(19), pp. 03-11.

Pateman, C., 1992. The patriarchal welfare state. In: M. Linda & P. Rosemary, eds. *Defining Women: Social institutions and gender divisions.* Oxford: Policy Press, in association with the Open University, pp. 223-246.

Perez, C. C., 2019. *Invisible Women.* s.l.:Abrams Press .

Play Scotland, 2022. *Playful Streets: Supporting Play in the Community.* [Online]
Available at: https://www.playscotland.org/resources/playful-streets-supporting-play-in-the-community/
[Accessed 20 05 2022].

Policy and Sustainability Commitee, 2021a. *Women's safety in Public Places,* Edinburgh: Edinburgh City Council.

Policy and Sustainability Committee, 2021b. *20-Minute Neighbourhood Strategy: Living Well Locally,* Edinburgh: City of Edinburgh Council.

Policy and Sustainability Committee, 2021c. *Delivering the 20-Minute Neighbourhood Strategy,* Edinburgh: The City of Edinburgh Council.

Pucher, J. & Buehler, R., 2010. Walking and Cycling for Healthy Cities. *Build Environment ,* 36(4).

Putnam, R., 2000. *Bowling Alone.* New York: Simon and Schuster.

Ravensbergen, L., Buliung, R. & Laliberté, N., 2020. Toward feminist geographies of cycling. *Geography Compass,* Volume 13.

Reid, C., Tom, A. & Frisby, W., 2006. Finding the 'action' in feminist participatory atcion research. *Action Research,* 4(3), pp. 315-332.

Reinharz, S., 1992. *Feminist methods in social research..* New York: Oxford.

Sayer, L., 2005. Gender, Time and Inequality: Trends in Women's and Men's Paid Work, Unpaid Work and Free Time. *Social Forces,* 84(1), pp. 285-303.

Schenker, H. M., 1996. Women's and children's quarters in golden gate park,. *Gender Place and Culture ,* 3(3), pp. 293-308.

Scottish Government, 2020a. *Protecting Scotland, Renewing Scotland,* Edinburgh: Scottish Government.

Scottish Government, 2020b. *Scottish Index for Multiple Deprivation.* [Online]
Available at: https://www.gov.scot/publications/scottish-index-of-multiple-deprivation-2020v2-postcode-look-up/
[Accessed 20 06 2022].

Silva, D. C. D., King, D. A. & Lemar, S., 2019. Accessibility in Practice: 20-Minute City as a Sustainability Planning Goal. *Sustainability,* Volume 12.

Sixsmith, A. & Sixsmith, J., 2008. Ageing in Place in the United Kingdom. *Ageing International,* Volume 32, p. 219–235.

Steinbach, R., Green, J., Datta, J. & Edwards, P., 2011. Cycling and the city: A case study of how gendered, ethnic and class identities. *Social Science & Medicine,* Volume 72, pp. 1123-1130.

Stirling, S., 2021. *Corstorphine Connections: Engagement summary report,* Edinburgh: City of Edinburgh Council.

The World Bank, 2020. *Handbook for gender inclusive urban design,* Washington, DC: The World Bank.

Trusiani, E., 2018. Healthy Cities and Urban Planning: The QLandQlife Model as Imput for Experimentation. In: R. C. Grifoni, R. D'Onofrio & M. Sargolini, eds. *Quality of Life in Urban Landscapes.* Switzerland: Springer, pp. 319-327.

Tzoulas, K. et al., 2007. Promoting ecosystem and human health in urban areas using Green Infrastructure: A literature review. *Landscape and Urban Planning ,* Volume 81, pp. 167-178.

UK Rail News , 2022. *Rail News.* [Online]
Available at: https://news.railbusinessdaily.com/rail-industry-campaign-to-crack-down-on-sexual-harassment/
[Accessed 01 07 2022].

Valentine, G., 1989. The Geography of Women's Fear.. *Area,* 21(2), pp. 385-390.

Weng, M. et al., 2019. The 15-minute walkable neighbourhoods: Measurement, social inequalities and implications for building healthy communities in urban China. *Journal of Transport & Health,* Volume 13, pp. 259-273.