Navigating the City: Women's Perspective of Urban Mobility in the City of Johannesburg

Mueletshedzi Helen Phosho, Trynos Gumbo

(Mueletshedzi Helen Phosho, Dept of Urban and Regional Planning, University of Johannesburg. Cnr Siemert & Beit Streets, Doornfontein 0184 Johannesburg, South Africa, phoshomueletshedzihelen@gmail.com)
(Prof Trynos Gumbo, Dept. of Urban and Regional Planning, University of Johannesburg. Cnr Siemert & Beit Streets, Doornfontein 0184 Johannesburg, South Africa, tgumbo@uj.ac.za)

1 ABSTRACT

Infrastructure is a vital basis for supporting sustainable and inclusive socioeconomic growth in cities since it substantially affects access to education, employment, and other services. On the contrary, cities are designed without a consideration of all members of the society. Scholars note that a lack of mobility in cities can lead to geographical segregation, exacerbating inequalities by limiting access to opportunities for women and other marginalised groups in urban areas. Building infrastructure in cities that is gender-blind can lead to the social and economic exclusion of a large section of the population. There is a gap in literature on how gender roles influence the feeling of safety, inclusion and accessibility in cities. Recent research has highlighted the need to explore how specific urban contexts influence the feeling of safety, inclusion and accessibility of different genders in cities. This paper aims to explore Women's experiences of urban mobility in the city of Johannesburg. It followed a case study design to extract meaning from the experiences of women in the city of Johannesburg and adopted a qualitative method approach to the perception of safety and how it influenced mobility of women. Data was collected through a series of in-depth interviews with women who navigate the city daily mainly by foot or public transport and it was analysed using thematic analysis. Policies on safety and inclusive spaces within Johannesburg were also reviewed. The results show that the movement of women and the marginalised groups is limited to certain spaces in the city due to safety concerns. The paper also discusses the gendered nature of the city and how it impacts the mobility of women. Overall, it recommends putting in place policies that promotes safety and inclusiveness for all urban residents. Urban planning practices should create welcoming spaces that create positive perceptions about the cities.

Keywords: urban mobility, inclusiveness, gendered cities, Johannesburg.

2 INTRODUCTION AND CONTEXTUALISATION

Both the urban and rural populations expanded simultaneosly for several decades in South Africa, with the rural population somewhat increasing at a faster rate than the urban population (URBANET, 2020). However, in 1987 this trend changed, and urban population surpassed rural residents as the majority, sparking a fast increase in population in South Africa's cities which was quickly followed by a decline in the number of rural residents, a pattern that has persisted ever since (URBANET, 2020). The rapid urbanisation poses a great challenge in South African cities as the infrastructure is unable to cope with the influx of people moving to these cities from other African countries and Asian countries. Some of the challenges that cities in South Africa face include the establishment of a sufficient transportation infrastructure, given that a sizable section of the country's population relies on public transportation (The Practice Group, 2018). The most affected of these are the metropolitan cities such as Johannesburg, Tshwane, Cape Town, Ekurhuleni amongst other. Due to the apartheid system of governance which imposed a system of racial segregation, many settlements for the black majority in the country are located on the urban outskirts, which means that people from these communities travel long hours to access services and opportunities. This tends to limit mobility of women and other marginalised groups such as the elderly, people with disabilities, LGBTQI community and migrants from other Sub-Saharan Africa countries. Insecurity and the fear of physical or sexual violence in public spaces and when using public transportation are some of the key factors that come to play (Loukaitou-Sideris, 2014). Johannesburg is a city with many opportunities to improve one's livelihood, including job opportunities, access to education, health care and services. Many people come to this city in order to take advantage of these chances and build a prosperous future for themselves. Johannesburg, on the other hand, is a difficult city to traverse (Dirsuweit, 2002). Johannesburg is a city that is spatially divided. It is a city where activities are spread out (Miller, 2008), therefore getting to them would necessitate some type of mobility or transportation. A spatially dispersed city increases residents' movement within the city. As a result, residents' ability to fully utilise all the benefits of the city depends on them being able to move to various points within the city. Scholars note that a lack of mobility in cities can lead to

geographical segregation, exacerbating inequalities by limiting access to opportunities for women and other marginalised groups in urban areas (Blumenberg, 2004; Blumenberg & Manville, 2004; Grengs, 2010; Hadiyati, Tan & Yamu, 2021). The Department of Cooperative Governance and Traditional Affairs (CoGTA) introduced policy initiatives such as the Integrated Urban Development Framework (IUDF) to promote "liveable, safe, resource-efficient cities and towns that are socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life" (IUDF, 2016). Some of the policies to promote safety for women may include the National Strategic Plan (NSP) which aim to address violence against women and 'creating an enabling environment in which women can feel safe' (Johnstone, 2021). In South Africa, there is a gap in knowledge on how the gender roles influence the travel spatial patterns and decisions, thus a need to research how the urban context influences the feeling of safety, inclusion and accessibility. Existing literature on safety and security of women in Johannesburg discusses Women's perceptions of danger and fear within the city outlining the areas and identifying the spaces in Johannesburg where women feel unsafe (Gordon, 2012; Pain, 1997). However, there is limited literature that discusses the experiences of Women's mobility and the things that limit their urban mobility in the city of Johannesburg. This paper thus focuses on understanding the experiences of women and how they navigate in Johannesburg. This paper starts by looking at the conceptual and theoretical framework whereby the term urban mobility will be defined in detail and the gendered nature of cities will be explained. It then moves on to look at the inequality and the mobility trends situation in the city of Johannesburg. The latter section presents the findings of this study; and lastly the paper presents the solutions that can be implemented to address urban mobility challenges that women face in Johannesburg and other South African cities.

3 CONCEPTUAL SYNOPSIS

Traditionally, urban mobility has been about "moving people from one location to another location within or between urban areas". This was based on a principle of people needing access to opportunities, housing alongside other urban services. Urban mobility in this paper refers to the ease with which people can move between destinations in urban areas with the help of the transport network and services available (EU Sustainable Urban Mobility, 2020). One can also define 'urban mobility' as catch phrase for all aspects of movement in an urban setting which includes all modes of transportation such as non-motorised transport and motorised transport and the spatial arrangements of these in a built environment (Gumbo et al 2022; Risimati et al 2021). Urban mobility has to do with accessibility (Gumbo & Moyo, 2020), which can be translated to providing adequate travel conditions that allows all urban residents to access and integrate into cities. Studying urban mobility from a gendered perspective is essential since having access to safe transportation is closely related to achieving the Sustainable Development Goals of the 2030 Agenda (SDGs). It may guarantee that women have equal chances for leadership in political, economic, and public life, as well as for effective participation (SDG 5.5). As a result, Women's unique requirements must be taken into account while planning for urban growth. Often due to differences occurring in socially constructed gender roles, women are predisposed towards certain travel characteristics that are distinct from those of men. These variations in travel patterns may result from a variety of factors, including different roles, safety concerns, reduced income, and reduced bargaining and decision-making capacity. Johannesburg is a focus area where, despite recent initiatives by the government to innovate urban mobility, the dynamics of transportation and infrastructure remain significantly gendered and thus limiting Women's movements within the city.

4 STUDY AREA

The scope of this study focuses on the city of Johannesburg, which is located in the province of Gauteng in South Africa, as shown in the figure below (Figure 1). The city of Johannesburg is one of the three metropolises of this province. It is bordered by Tshwane Metropolitan City to the north, Ekurhuleni Metropolitan City to the east, Sedibeng District to the south, and West Rand District to the west. It is the capital of Gauteng, which is the South African province with the biggest population comprising approximately 24 percent of the overall population. According to the (COJ IDP, 2020/21), Johannesburg is home to 5.74 million people, and it is approximately 16645 km2 in extent. The city population has grown on average by 2.91 percent per annum in the last decade which is close to double the growth rate of the national rate (1.57%). The city is a financial and economic powerhouse on a worldwide scale. Despite inward migration, its economy has expanded more quickly than South Africa as a whole, and it has increased

employment rates relative to the national average. Johannesburg also has one of the greatest levels of inequality in the world with a Gini co-efficient of 0.62, along with high rates of unemployment and poverty. Despite implementing a number of initiatives and regulations to become denser over the past 20 years, the city has expanded in a very sprawling manner. The city's spatial structure, however, is marked by a number of shortcomings, including low land use diversification, geographical inequity, fragmentation, and disconnection, as well as strain on the environment.
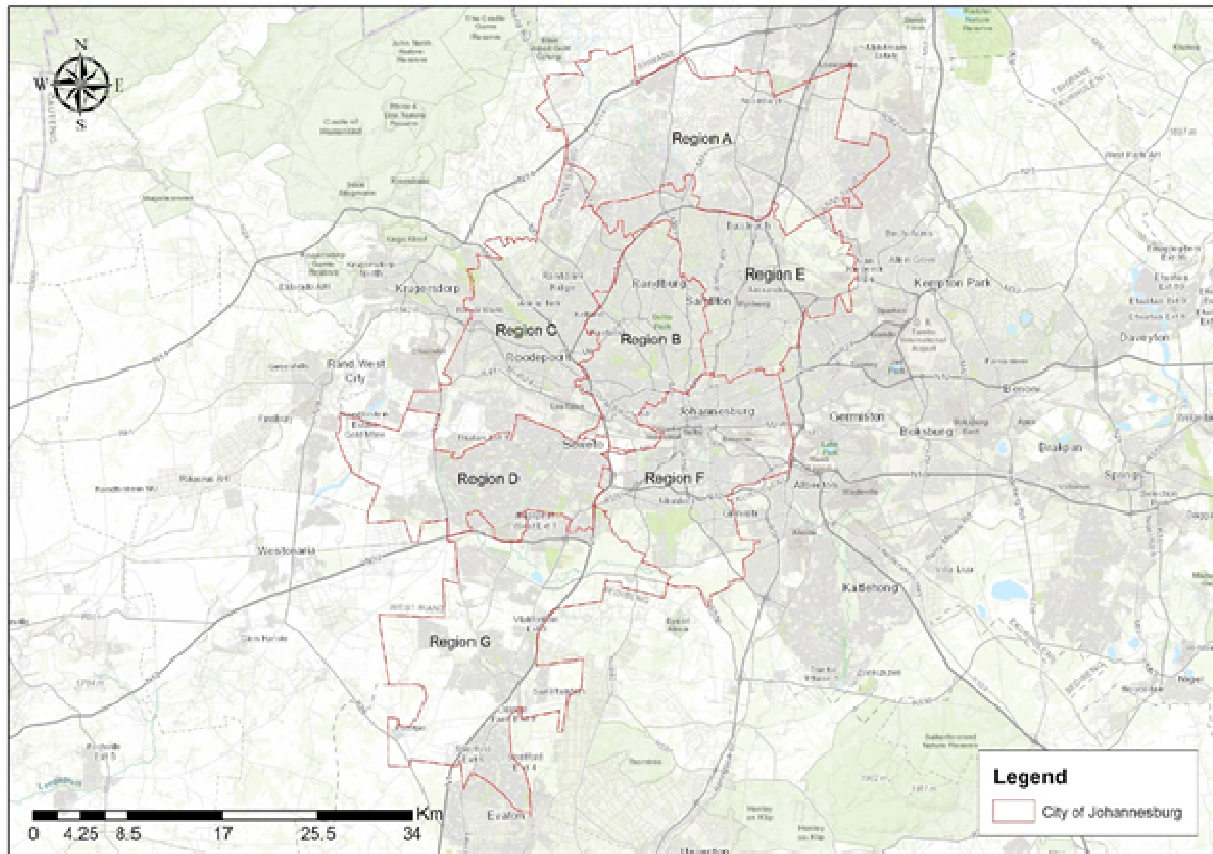

Figure 1: City of Johannesburg map (Source: Author, 2021)

The city of Johannesburg is divided into seven administrative regions as depicted in Figure 1 above. The regions in the city are also divided by wealth and status of its residents. "The poor mostly live in the southern suburbs or on the peripheries of the far north, and the middle- and upper class live largely in the suburbs of the central and north" (Smith, 2013). As Murray (2004, 17) observes: 'The spatial morphology of the extended metropolitan region (Johannesburg) has polarised around two compartmentalised extremes: on the one hand, the spaces of affluence are healthy, functional and largely the exclusive preserve of the white upper- and middle-classes; on the other, the overcrowded spaces of confinement are distressed, dysfunctional and where the overwhelming majority of black urban residents live and work . . . '.

As Dirsuweit (2002) notes that Johannesburg is a difficult city to navigate. The first challenge relates to the accessibility of the city. The city of Johannesburg is spatially divided. It is a city where activities are frequently dispersed across a wide area, necessitating some kind of transit or long-distance movement to get to them (Miller, 2008). Further, the way in which the city's movement systems work and the design of the city tend to favour the male population as opposed to all the citizens of the city. This makes mobility of the female population in the city a challenge. Another reason that makes Johannesburg a difficult city has to do with people's perception of violence in the city (Dirsuweit, 2002). Violence in public spaces is evident and affects citizens' perception of the city. Perceptions of danger in the city pose a challenge to movement within the city, as women may restrict their movements due to this perception of danger (Pain, 1997). Both make getting around the city a challenge, especially for women.

5 METHODOLOGY

This study aimed at investigating the experience of women within Johannesburg, thus it adapted the qualitative method approach to fully explore the research question: 'To what extent does the perceptions of safety in the city influence the mobility of women in the City of Johannesburg?'. The study aimed at understanding the challenges that women face when navigating the public realm of Johannesburg. A case study design was adopted and applied to extract meaning from the experiences of women living in the city of Johannesburg Metropolitan Municipality. The study was conducted through a series of engagements with women who engage with the city. The kind of data required for this research was that of daily experiences of mobility patterns. This would be information regarding Women's perceptions of Johannesburg and their perceptions of mobility in the city. The research required data on the mode of transportation used. The data was captured through a series of in-depth interviews with 30 females. Such data included general information whereby the researcher was able to extract information as well as building up a relationship with the respondents. The interviews also allowed participants to become familiar with the researcher and the research aims in order to understand what was required from them and to allow respondents to feel comfortable with the researcher to reveal detailed experiences of mobility within the City of Johannesburg. Interviews took the form of semi-structured in-depth interviews of approximately twenty minutes each. In the interviews, the participants were asked general questions such as where they are from, their age and how long they have lived in Johannesburg. Participants were asked to tell the researcher about their perceptions of Johannesburg. These perceptions referred to what they had thought about the city. The researcher also enquired what respondents' current perceptions are of the city. The final set of questions of the first interview related to perceptions of mobility in the city as a women. Here, participants were asked how they feel about movement in the public realm of Johannesburg. Participants were selected on the basis of being females who have access to the city of Johannesburg and navigate Johannesburg mainly by foot and by public transit. Participants were also required to be from a place of origin that is other than Johannesburg. Thirty participants were selected for this study. The interviews took place between the 25 of September 2019 and the 05 November 2019.

6 FINDINGS

There are challenges that women face in their movements in cities, and these challenges are not unique to the city of Johannesburg. A lack of safe transportation to and from work is linked to almost 16% lower labour force participation of women in developing countries, according to the United Nations' International Labour Organisation. In many cities, there are issues of inaccessible or unsuitable transport which negatively impacts a person's quality of life (Harrisberg, 2020). This disproportionately affects women and girls in terms of harassment, getting to school and accessing jobs. Female urban mobility issues in South Africa are primarily associated with unplanned, informally constructed urban areas that concentrate vulnerable people on city outskirts (Harrisberg, 2020. This results in females having to travel long, unsafe and expensive trips to inner cities or areas of economic opportunities.

6.1 Gendered Nature of Cities

The built environment is often defined as created by men for men. This includes buildings, their environment, land use patterns and design aspects of the public realm (Abada, 2013). Females are associated with maintaining family and households. The private sphere is constantly practiced as a space reserved for women. Here, they should spend most of their time and be able to work freely. On the other hand, men were considered the breadwinners and stronger than women (Hayden, 1980; Dredd, 1997; Quihato, 2009). Now that women work alongside men, these roles have changed. They often have other responsibilities besides taking care of the family. Women are also more active in the city. Women are constantly travelling around the city, studying and working. The question arises whether cities have developed and evolved to accommodate these changing roles for women (Miran and Young, 2000). Cities should be designed to accommodate both men and women (Rasoul et al., 2002). Different groups of the urban population perceive the city differently and therefore have different needs from the city (UN-Habitat, 2014). Scruton and Watson (2010) reveal the complexity of urban spaces. They argue that all places play a special role for different people and therefore have different meanings for different people. Quijado (2009) discusses how women create strategic relationships with the city. They often plan where, when and how to achieve their goal. Women often need a grocery store or daycare (if they have small children) close to where they work and

live. This allows them to travel through space and get all the supplies they need. Women also need a sense of security that varies depending on the environment. In some cases, women may feel safer in crowded places than in quiet ones, and vice versa. Feeling safe can also include features of the environment, such as the presence of a guard or the presence of sunlight or trees. Another important aspect is street lighting and maintenance of roads and sidewalks. This makes women feel comfortable in the place and creates a sense of security (Schmucky, 2012). Miran and Young (2000) discuss the relationship of women with the urban environment. They realise that it is suitable for places where women interact with each other. In this way, women adapt to their surroundings and often act differently depending on the nature of the space they occupy. In the same way, spaces change their appearance and shape with the presence of women. Another aspect discussed by these authors is the concept of gendered urban boundaries, which are described as places in the city where women are seen and places where they are not. This is related to the physical shape and appearance of the space and other factors such as space and time of day (Miran and Yang, 2000).

6.2 Uncomfortable City

Many women have expressed feelings of discomfort. This is because some of them are frequently subjected to different sorts of violence and harassment in public places, and aggressions such as intimidating staring and passing comments have become a norm in the city (Shah & Raman, 2019). Most of this violence happens when they are walking the streets and when in taxi ranks trying to catch a taxi, which happens to be the most used mode of transport in Johannesburg. The feeling of discomfort is expressed mainly by the women who rely on public transport to get to their destination in the city. They expressed that they are careful of what they wear when they go to the city. Short clothing is generally out of the question for these women as they are fearful of being sexually harassed, thus they opt to wear clothing that are long enough to avoid being harassed by the males in the city.

6.3 Inaccessible city

Studies show that men and women use public transport in different ways (Hanlon, 1998; Sánchez, & González, 2016; Goel. et al,. 2022; and this is as a result of their distinct economic and social activities. Mostly due to their social roles and their economic situation, women tend to travel more using public transport than their male counterparts. It is common for women to have more domestic responsibilities, such as taking care of children, running household errands, and maintaining family and community ties. However, women face real or perceived threats of violence on public transportation, such as sexual harassment and these are one of the most significant mobility constraints affecting women disproportionately (Kacharo, Teshome & Woltamo, 2022). It is common for women to experience verbal and non-verbal gender-based violence in public transportation, including groping, catcalling, inappropriate comments, assault, and even rape. Safety is one of the main factors that influences Women's mobility in many cities. In many cities, women regularly pay more to use e-hailing services and private taxi services to avoid harassment on public transport (Zhen, 2021). Equal access to public transport is about making the transport system usable for women and meeting their need for safe, efficient and sustainable mobility. However, due to poor transport planning, women often do not have equal access to public transport, making full access to the city inaccessible and limited to many women in cities. According to UN Women, 'public transport is an essential enabler in accessing the public sphere, without which women may be kept away from all essential economic, social, and political activities'. Women should be able to move about the city and access a variety of destinations by using public transportation. In the City of Johannesburg, there are a variety of public transportation that are available. These include the Metrobus, Rea Vaya, Gautrain, mini-bus taxis which are relatively affordable to most users. The study uncovered that many of the participants did not know how to access some of the modes of transportation. In the case of the Rea Vaya and the Metrobus, they did not know how or where they could buy tickets to use these services. The process of accessing these modes was a process which they would entirely avoid as they understand that they would have to use two to three of these buses and walking to reach their final destination. Thus, they would rather stick to using the mini-bus taxis as they only used one to reach their final destination. Flexibility has been cited many times with the mini-bus taxis as the preferred mode of transport by many participants. Participants who are unfamiliar with how the public transportation system works put them at a significant disadvantage and significantly limits their mobility within the city.

Another concern for participants is that they are unfamiliar with the city, having moved from another place and not lived in Johannesburg for an extended length of time. When they are unfamiliar with the route to a certain area, these participants are afraid of travelling by minibus taxi. The challenge is whether they exit at the correct location. As a result, those who want to travel for pleasure may prefer to stay at home. Women's preliminary views frequently prevent them from fully experiencing the city. When people are in some regions, they feel secure and comfortable, but not in others. The participants highlighted that before they can embark on the journey to the city, they firstly assess the risks involved and also try to map the exact routes that they would use when walking in the city and they plan the time they would walk in these areas. This judgment is based on space characteristics such as lighting (when it is dark), crowdedness, and public waste maintenance, as demonstrated by some of the respondents who are afraid to walk in Johannesburg after dark.

Another issue with access within Johannesburg it is the spatially segregated city. The activities are often placed far from each other which usually would require a sizeable time to travel between the location of these activities. It is important to note that spatial isolation of the urban poor (and mismatch between housing and jobs) in cities is not unique to Johannesburg. Cities in Brazil, Mexico, Chile and Colombia face similar problems. The way a street segment is arranged in relation to other street segments in an urban system influences people's use and perception of space. For instance, people tend to choose a route with less angular deviation or the straightest route as it is less confusing (Dalton, 2003; Hidayati, Tan &Yamu, 2020). Hillier et al., (1993) note that streets that are better connected to other streets are more accessible, attracting more people and becoming a possible location for socioeconomic activities. These types of streets attract many women as many activities are clustered in a single area. In contrast, because of the lack of other pedestrians and limited public activities, a separated street with only one link to other streets, such as a dead-end, is likely to be seen as unsafe (Nguyen and van Nes, 2013). Because traditional planning and design of a built environment rarely take these considerations into account, the existing spatial structure unintentionally reinforces the socio-cultural constructions that enable gendered mobility (Terraza et al., 2020). The city turned to Transit-Oriented Development to address the spatial isolation issue, which emphasises creating compact, walkable, mixed-use, mixed-income communities centred around high-quality public transportation. Additionally, the city has undertaken urban renewal projects in the inner city in order to encourage mixed land use.

6.4 Unsafe and insecure City

Many participants concluded that they generally feel unsafe walking in Johannesburg's public spaces. Participants say they feel safe walking in certain areas, bearing in mind their caution. Participants who travel on foot as their primary means of transportation do not appreciate the experience of walking during rush hour. Instead of feeling reassured by the presence of other people, they see crowds as an opportunity for pickpocketing. This is due to the presence of many pedestrians walking on the sidewalks, making it a challenging task to keep an eye on your belongings. During peak hours, participants are also cautious of vehicles that do not stop at stop signs. Some participants also indicated that as long as they practice caution, the city may be safe. This applies to all kinds of transportation, particularly walking. Another prevalent theme across participants, whether they feel comfortable in general or not, is that they feel better travelling in groups. A common factor that makes participants feel safe is their familiarity with the space. All participants stated that when they get to know a place, they feel safe in that place. Familiarity with a long stay in the city has a strong connection. Participants who have lived in the city for a long time generally feel more comfortable in their surroundings than participants who have lived in the city for only a few years. Many participants discussed how they did not feel safe in an unfamiliar area. Some may choose to avoid these spaces entirely because of the unknown. The participants have the same perception regarding public transport. They may choose not to travel if they fear using a particular mode of transport with which they are unfamiliar. Participants moving through the spaces, whether or not they are familiar with the spaces, feel safer in public spaces when the Johannesburg Metro Police Department (JMPD) or security personnel are present. Familiarity with a room increases the feeling of security. Participants who live in a certain area feel safer moving around the area than someone who does not live in the area. Participants living in Johannesburg feel safer to move around than those living elsewhere. Another outstanding feature that makes participants feel secure is when travelling with a companion. Participants tend to feel safer in public spaces when doing so with friends. This sense of security increases with the number of friends travelling and also increases when a male friend is present. This understanding makes it clear that companies can have gender biases, as

participants often feel safer when travelling with a male companion. They reported that the company trip seems "safer, shorter and generally more comfortable". This applies to travel by all means of transport. Participants also believe they could explore Johannesburg more if they travelled with a companion. Finding company for the move can be difficult as the participants' friends or family may not want to travel as much as the participant chooses to. Participants usually only have limited time. If they are available to explore the city, there may not be the time for their friends to join them. This complicates their mobility in the city. In terms of safety related to different modes of transport, participants feel more secure when travelling by private transport. Reasons why participants did not like their experience in Johannesburg CBD were verbal harassment from men and worrying about their belongings in the crowded spaces. The women interviewed cited security as a key issue regarding the limited access to Johannesburg and the high level of gender-based violence against women in the city. This study identified cases of sexual harassment of women in Johannesburg while using public transport and waiting for public transport. Poor infrastructure, including street lighting, public toilets and comfortable sidewalks, makes travelling by public transport extremely inconvenient and dangerous. Long distances were also found to be a major barrier to Women's mobility in Johannesburg.

6.5 Fear of Traveling at Night – A Restrictive City

Some participants' behaviour is affected by travel time, but not all. According to some participants, traveling at a certain time of the day has a significant impact on their experience. Johannesburg residents generally described walking in the area after dark as a pleasant experience. The duration of the trip is another factor all participants must take into account, along with the time of day. It was more common for participants to consider the duration of their journey at night. Many participants reported feeling unsafe traveling long distances at night. Women suffer more from physical conditions. This affects the roads or modes of transport that many women choose. For example, trying to be safe when alone at night. The participants talk about the careful planning that girls often do before an evening outing. They usually carefully plan out the evening, the mode of transport they are going to use, which routes is it going to take, if they are walking which streets they will use to get to their destination and who they will be walking or travelling with. Many women say that the last mile is the hardest. Streets can be dimly lit and empty. Some women take detours and avoid parks to walk along busy and wide streets. Others go through their keys, making the intruder think they live nearby and the neighbours are watching. In the tunnel, the girls look for safe islands. They try to avoid long waits at the lower metro station and, if necessary, prefer to join proven groups.

6.6 Economical Exclusive City

Some of the issues that interviewed women highlighted was the issue of affordability. According to the United Nations Development Program's (UNDP) Human Development Report, women compose the vast majority of the world's poor. This is more noticeable in cities. Most women stated that some of the reasons why they do not explore the city is mostly due to financial constraints. They spend most of their money attending to the household needs such as taking care of the family amongst others as they were single and sometimes unemployed mothers, and independent females who moved to Johannesburg to look for economic opportunities. Women lack access to the same resources as males, and their ability to be economically active is limited because, in virtually all civilizations, they still bear the majority of childcare and reproductive obligations (Allen, 2018).

7 ADDRESSING WOMEN'S MOBILITY AND ACCESSIBILITY TO CITIES

Women find it difficult to move around cities on a daily basis. This is due to poor design of urban spaces, which only takes into account the needs and mobility patterns of people in general. Women have different needs and experiences in urban spaces, which affects their use of these spaces. This is overlooked by urban planners who take into account general needs and specific mobility patterns as the universal model. Access to transport, both public and private, is critical to Women's rights and equality. Limited or inadequate access to transportation can limit Women's quality of life, education, employment, cultural opportunities, and leisure time. Thus, when addressing Women's mobility and accessibility in the context of cities, a holistic approach should be taken. Below are some of ideas that have been proposed to address the challenge of mobility of females in cities.

7.1 Active Participation of females in the transport sector

The transportation industry is still heavily dominated by men. Only 8% of employees in the Sub-Saharan African transport business are female, a figure that is progressively increasing slowly over time (Shawa, Sossa & O'Higgins, 2020). This has an impact on how Women's voices (as road and transportation users) are heard. Incentives for transportation services are insufficient to meet the needs of female service customers. Evidence from South Africa suggests that an increase in female legislators correlates with progressive legislation that addresses Women's mobility needs (Dominguez Gonzalez, 2018). Similarly, exposing young girls to STEM disciplines and promoting paid internship programmes by transportation companies can be game changers (Dominguez Gonzalez, 2018).Programmes that promote females in the transportation sector should be implemented. For instance, the South African Network for Women in Transport (SANWIT) was introduced to improve the proportion of women in the transportation sector in South Africa. The South African Network for Women in Transport (SANWIT) concept was born out of a need to break existing barriers for entry into the sector and to demystify existing myths.

7.2 Inclusivity through needs assessment and provision

Aside from including Women's perspectives in the redesign of public transportation, it is important to identify Women's mobility constraints outside of transportation systems (Dominguez Gonzalez, 2018). Despite the availability of accessible transportation, women were afraid to go about due to their fear of the unknown, according to one study. The limits on Women's mobility are multifaceted, and solutions must be multifaceted and cross-sectoral as well. To boost Women's mobility, such solutions must involve unconventional ways, such as relocating some of the services to be convenient to women and other marginalised groups.

7.3 Gender-informed infrastructure and transport services

Gender sensitive infrastructure design necessitates a consultative approach with women in order to understand and solve their special demands, one of which being safety concerns (Dominguez Gonzalez, 2018). Women's mobility differences and requirements have been translated into applicable infrastructure and traffic planning in Vienna, Austria: stations and waiting areas were renovated to allow clear views of the surrounding region, systems were streamlined to make them more user-friendly, route pavements were made larger, and walkways were added (Dominguez Gonzalez, 2018). Countries such as Mexico, Brazil, India, and Japan have pushed women-only cars to boost safety among female public transportation riders. This strategy could be a short-term answer for increasing Women's mobility in places where sexual harassment and violence are common. It does not, however, address the underlying causes of violence against women. More innovative and holistic approaches to improving gender dynamics are needed, such as community interventions in transportation systems that inform transport users and operators how to intervene in cases of harassment.

7.4 Spatial Planning

Concepts like co-design, human-centred design, and inclusive master planning emphasise the necessity for these spaces to be created with participation from all users. Building a strong sense of empathy for the people you are planning for and which is essential, as is realizing that what constitutes quality of life varies from location to place, community to community, and over the course of a person's life. A very customer-centric approach to planning and design is frequently used by public transportation agencies to do this, but it is rarely used across cities with gendered urban design that takes into account female patterns of time management and simultaneous task completion. Fundamentally, accessibility must be taken into account in planning and design in order to be hospitable and beneficial to the entire population. This is crucial if planners want communities to take ownership of, responsibility for, and pride in their common areas. Cities can be made more inclusive for everyone by incorporating more mixed land uses, better and more accessible public transportation (which can accommodate a variety of travel patterns and multi-journey trips), safety and security, and the co-location of social infrastructure, or the "city of short distances."

7.5 Create safe spaces

Comfort is influenced by a number of elements, such as good lighting, areas for individuals and groups to sit, and weather protection. However, the most crucial component of welcoming and secure settings is still

prospect and refuge (Jain, 2021). It's crucial to be able to observe your surroundings while maintaining your privacy, especially if you're among other ladies or kids. The presence of other people, which relates to Jane Jacobs' concept of "eyes on the street", is a crucial factor in comfort. One of the most crucial elements influencing Women's preferences and decisions about transportation in the country is personal safety. Better physical infrastructure cannot only support non-motorised mobility, but also enhance last or first-mile connectivity for public transportation (Jain, 2021). Examples include wide pathways with adequate lighting, removing dark corners and view-obstructing structures, public restrooms, women-specific safe parking spaces, and adequate seating arrangements.

Jane Jacobs emphasised the value of covert surveillance of the urban environment in 1961. According to her "eyes on the street" theory, unofficial observation in lively public areas can help individuals feel comfortable even when they are around strangers. Restaurants or stores that foster a friendly environment can be built close to public transportation hubs to create active community areas. This bottom-up approach to community planning can build networks of shared care and offer covert surveillance for women (Jain, 2021). The prevalence of sexual harassment may increase as a result of overcrowding. Women have a shorter window of time to commute by public transportation due to safety concerns. The smaller "safe window" might lead to more traffic during particular hours, which decreases the dependability and safety of public transportation. By increasing the frequency of short-distance mobility services and developing a flexible fee structure to assure multi-journey tickets, transportation services must be improved in order to minimise congestion (Gulati, 2015). Women drivers offering GPS-enabled night-time taxi services may increase safety during off-peak periods.

It is possible to address safety issues by stepping up surveillance at important transportation hubs. This can be secured by placing more women in positions of authority within the transportation industry, actively monitoring CCTV with a focused task force, and using GPS tracking services. However, it is challenging to track down intermediate forms of public transportation like mini-bus taxis services, which is the most used form of public transport in South Africa because they are not properly registered. Policies that regulate and ensure registry of every vehicle in the cities are available, but enforcement of these policies are very rare. Thus, there needs to be a stronger emphasis on the enforcement of those policies in the country.

7.6 Accessible spaces in City

Women's inclinations for mobility vary across the globe. It is important to consider parks, plazas, streets, and other public areas as a cohesive whole when planning (and designing) them. A wonderful park can only be as secure and welcoming as the dark, winding alley that leads up to it. However, public areas should be reachable by all modes of transportation, including on foot. All users desire navigation that is clear, numerous, and readable. Exits that are visibly marked and well-lit, safe spaces integrated into public areas, and ways to make emergency contacts are all crucial. To boost Women's mobility and access to economic opportunities, a comprehensive strategy is required. It would need to consider the three factors of infrastructure design, transportation services that are appropriate for Women's demands and decision-making processes, and mobility constraints (Gulati, 2015). Women should not have to worry about being harassed or attacked in public. They ought to have mobility choices that satisfy security requirements. Women should no longer be denied equal rights by the transportation system. It should be one that gives them enough power that designing for female users becomes standard practice rather than an exception. In addition to increasing the economic and social prospects for women, increased mobility is crucial for reducing environmental harm and urban congestion. Particularly during the epidemic, having insufficient access to secure transportation can worsen Women's "hidden hurdles" to employment and hinder their ability to access other services like health or education (Gulati, 2015). In order to realise their entitlement to the city and promote inclusive urban development, women must reclaim public places.

7.7 Measures to change men's attitude towards women

In the today's world, it has been noted that women are generally treated as second class citizens (Kambarami, 2006; Phadke & Roy, 2017), who are not able to make their own decisions. Those that dare to express themselves openly are punished and judge by society (Merry, 2003; Javed, 2012). Thus, there is a need to change people's attitudes and the way they view women in societies so that women can feel safe in both the public and private spaces. These attitudinal changes can start from an individual's upbringing.

Women (as mothers) need to teach children at a younger age about behavioural codes in the form of what is an acceptable behaviour and what is not acceptable to women. These attitudinal changes also need to be introduced to the country's educational system since 'educational institutions convey a gender stereotypical attitude in subtle ways' (Javed, 2013). Ethics need to be introduced as part of the school curriculum for young students, they need to be taught life skills such as how to approach, treat and respect women and other marginalized groups. Men in general need to be educated on the importance of treating women as their equals in society.

8 CONCLUSION

An inclusive city is one where all citizens have equal access to explore and enjoy the city without discrimination. It is a city where all its residents feel they belong. This is a city that residents love and want to be a part of. The purpose of this study was to understand women as a group in Johannesburg in terms of their mobility and experiences of mobility in the city. The results showed that most women do not enjoy the experience of moving around Johannesburg either by public transport or walking. Thus, urban planning procedure should be used to create a more pleasant city for women and the other disadvantaged minority groups. Urban design should be addressed in a way that creates positive thoughts about the city, so that instead of women being afraid and nervous about moving in the city, they feel confident and excited about moving in the city.

9 REFERENCES

Abada, N., 2013. Understanding women-friendly cities: distilling elements from United Nations designated cities.

Allen, H., 2018. Approaches for gender responsive urban mobility. Sustainable Transport: A Sourcebook for Policy-makers in Developing Cities Module 7ª. Recuperado de http://cort. as/-JuZP.

City of Johannesburg (2020), Integrated Development Plan 2020/21 Review, Johannesburg: COJ

Department of Cooperative Government and Traditional Affairs Towards an Integrated Urban Development Framework(2014) 20–25

Dirsuweit, T., 2002. Johannesburg: fearful city?. In Urban Forum (Vol. 13, No. 3, pp. 3-19).

Dominguez Gonzalez, K., Machado, A.L., Bianchi Alves, B., Raffo, V., Guerrero, S. and Portabales, I., 2020. Why Does She Move?.

Goel, R., Oyebode, O., Foley, L., Tatah, L., Millett, C. and Woodcock, J., 2022. Gender differences in active travel in major cities across the world. Transportation, pp.1-17.

Gulati, N., 2015. How can placemaking help create safer cities for women. Project for Public Spaces, 28.

Güney, Y.İ., 2014. Gender and urban space: An examination of a small Anatolian city.

Gumbo Trynos and Moyo Thembani (2020) Exploring the Interoperability of Public Transport Systems for Sustainable Mobility in Developing Cities: Lessons from Johannesburg Metropolitan City, South Africa, Sustainability, 12, 5875; 1-16; https://doi:10.3390/su12155875

Gumbo Trynos; Moyo Thembani; Ndwandwe Bongumusa; Risimati Brightnes; Mbatha Siphiwe (2022) Urban Public Transport Systems Innovations in the Era of the Fourth Industrial Revolution: Perspectives, Reflections and Conjectures, Springer Nature Switzerland AG, https://link.springer.com/book/10.1007/9783030987176

Harrisberg, K. (2020). 'Feature-Women and Girls Bear Brunt of Africa 'Transport Poverty'', Reuters, 13 November [Online]. Available at: [Accessed 25 July 2022]

Hanlon, S., 1998, July. Where do women feature in public transport?. In Women's Travel Issues Second National ConferenceDrachman Institute of the University of Arizona; Morgan State University; Federal Highway Administration.

Hayden, D., 1980. What would a non-sexist city be like? Speculations on housing, urban design, and human work. Signs: Journal of Women in Culture and Society, 5(S3), pp.S170-S187.

Hidayati, I., Tan, W. and Yamu, C., 2020. How gender differences and perceptions of safety shape urban mobility in Southeast Asia. Transportation research part F: traffic psychology and behaviour, 73, pp.155-173.

Hidayati, I., Tan, W. and Yamu, C., 2021. Conceptualizing mobility inequality: Mobility and accessibility for the marginalized. Journal of Planning Literature, 36(4), pp.492-507.

Hillier, B., Penn, A., Hanson, J., Grajewski, T. and Xu, J., 1993. Natural movement: or, configuration and attraction in urban pedestrian movement. Environment and Planning B: planning and design, 20(1), pp.29-66.

Johnstone, S. (2021). 'Gender Sensitive Planning and Urban Design for Cities to Respond to GBVF', Local Government Bulletin, Vol 6, Issue 1. Available at: https://dullahomarinstitute.org.za/multilevel-govt/local-government-bulletin/archives/volume-16-issue-1-march-2021/gender-sensitive-planning-and-urban-design-for-cities-to-respond-to-gbvf (Accessed: 07 July 2022)

Kacharo, D.K., Teshome, E. and Woltamo, T., 2022. Safety and security of women and girls in public transport. Urban, Planning and Transport Research, 10(1), pp.1-19.

Kambarami, M., 2006. Femininity, sexuality and culture: Patriarchy and female subordination in Zimbabwe. South Africa: ARSRC.

Loukaitou-Sideris, A., 2014. Fear and safety in transit environments from the Women's perspective. Security journal, 27(2), pp.242-256.

Lloyd, J., 2020. The non-sexist city: Then and now. Contentious Cities, pp.126-136.

Merry, S.E., 2003. Rights talk and the experience of law: implementing Women's human rights to protection from violence. Human rights quarterly, pp.343-381.

Miller, R.G., 2008. To Save a City: The Berlin Airlift, 1948-1949 (Vol. 68). Texas A&M University Press.

Nguyen, T.M. and Van Nes, A., 2013. Identifying the spatial parameters for differences in gender behaviour in built environments: The flaneur and flaneuwe of the 21st century. TRIA-Territorio della Ricerca su Insediamenti e Ambiente. Rivista internazionale di cultura urbanistica 10,(1) 2013.

Pain, R., 1997. Whither Women's fear? Perceptions of sexual violence in public and private space. International Review of Victimology, 4(4), pp.297-312.

Phadke, S. and Roy, A., 2017. Women walk out: Tired of being harassed and treated as second class citizens, Indian women are taking to the streets. Index on Censorship, 46(4), pp.50-53.

Risimati Brightnes, Gumbo Trynos and Chakwizira James (2021) Spatial Integration of Non-Motorised Transport and Urban Public Transport Infrastructure: A Case of Johannesburg, Sustainability, 13, 11461; 1-17, https://www.mdpi.com/2071-1050/13/20/11461

Sánchez, M.I.O. and González, E.M., 2016. Gender differences in commuting behavior: Women's greater sensitivity. Transportation Research Procedia, 18, pp.66-72.

Shah, S. and Raman, A., 2019. What Do Women and Girls Want from Urban Mobility Systems. New Delhi: Ola Mobility Institute.

Shawa, K.C., Sossa, P. and O'Higgins, N., 2020. Report on employment in Africa (Re-Africa): tackling the youth employment challenge.

Smith, D., 2013. Johannesburg Rebuked Over 'World-Class City' Advert. The Guardian.

Terraza, H., Orlando, M.B., Lakovits, C., Lopes Janik, V. and Kalashyan, A., 2020. Handbook for Gender-Inclusive Urban Planning and Design.

Wekerle, G.R., 1980. Women in the urban environment. Signs: Journal of Women in Culture and Society, 5(S3), pp.S188-S214.

Werland, S., 2020. Diffusing sustainable urban mobility planning in the EU. Sustainability, 12(20), p.8436.

Zhen, S., 2021. Rethinking public transportation for Women's safety and security. Bonn, Germany.

Dalton, R.C., 2003. The secret is to follow your nose: Route path selection and angularity. Environment and Behavior, 35(1), pp.107-131.