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Research Article

"When I Need to Travel, I Feel Feverish": Everyday Experiences of Transport Inequalities Among Older Adults in Dhaka, Bangladesh

Selim Jahangir, PhD,[1] Ajay Bailey, PhD,[1,2,*] Musleh Uddin Hasan, PhD,[3] Shanawez Hossain, PhD,[4] Marco Helbich, PhD,[2] and Martin Hyde, PhD[5]

[1]Transdisciplinary Centre for Qualitative Methods, Prasanna School of Public Health, Manipal Academy of Higher Education, Karnataka, India. [2]Department of Human Geography and Spatial Planning, Utrecht University, The Netherlands. [3]Department of Urban and Regional Planning, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh. [4]BRAC Institute of Governance and Development, Dhaka, Bangladesh. [5]Centre for Innovative Ageing, College of Human and Health Sciences, Swansea University, UK.

*Address correspondence to: Ajay Bailey, PhD, Department of Human Geography and Spatial Planning, Utrecht University, Princetonlaan 8a, 3508 TC Utrecht, The Netherlands. E-mail: a.bailey@uu.nl

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Abstract

Background and Objectives: Buses are the most common form of public transport for older adults in developing countries. With over 37% of total trips, buses are the principal mode of transport in Dhaka. The majority of older adults are dependent on buses because of their affordability relative to other modes such as auto-rickshaws, rideshares, and taxis. This study aims to investigate key barriers in accessing buses in Dhaka and the consequences of these barriers to the everyday mobility of older adults.

Research Design and Methods: Thirty participants aged 60 and older were recruited from 2 socioeconomically different neighborhoods in Dhaka. We employed a thematic analysis of visual surveys and in-depth interviews to understand older adults' spatial and cultural context and their experiences using buses in their everyday lives.

Results: Boarding and deboarding buses were common barriers for older adults due to overcrowding and traffic congestion. In addition, older adults faced challenges such as ageism, gender discrimination, and undesirable behavior by transport personnel and co-passengers. These barriers affected their independent mobility and influenced their access to work and social life, contributing to their social exclusion.

Discussion and Implications: This study illustrates the challenges faced by older adults when accessing public transport and the need to improve access to work, health care, and social life. Inclusive transport policies are essential in low- and middle-income countries to improve the well-being of older adults.

Keywords: Accessibility, Barriers, Bus, Exclusion, Mobility, Well-being

Transport inequalities among older adults lead to difficulties in accessing essential services such as work, health care, and social interactions and thus result in social exclusion (Currie et al., 2007; Lucas, 2012). This is particularly the case in low- and middle-income countries (Gorman et al., 2019). Though the proportion of the older population is higher in developed countries, the rate of population aging is faster in developing countries such as India and

Bangladesh (United Nations [UN], 2007). Bangladesh has about 13 million older people, accounting for 8% of the national population (UN, 2019). Population projections suggest a further increase of up to 36 million, 21.9% of the national total, by 2050. In Bangladesh, the proportion of older men (4.2%) is slightly higher than older women (3.8%) as poor health conditions contribute to early mortality among women. Older women live in more precarious circumstances due to lower education and employment, poorer economic security, gender discrimination, unequal access to health facilities, and patriarchal social norms (Rahman et al., 2018). Bangladesh Bureau of Statistics (2016) reported that only 38% of older adults receive an old-age allowance, which is a social pension paid to poorer older people. The social support system provides pensions only to the better-off (particularly, government officials such as civil servants) and has failed to reach all older people in poverty.

As people grow older, they can face social exclusion in various domains of life including social, cultural, economic, and political arenas (Levitas et al., 2007). Lucas (2012) identified transport inequality as a key contributor to social exclusion. Older adults from lower socioeconomic backgrounds face pronounced challenges in accessing public transport to reach basic services such as health care and work and other essential activities (e.g., social engagements and leisure; Ettema et al., 2017). Because public transport is an integral part of the everyday mobility for older adults, there is a clear need to understand how barriers to public transport are experienced and how they might contribute to social exclusion. In Dhaka, buses are the most common form of public transport, accounting for about 37% of total trips (e.g., 2,000 buses serve a population of 10 million in Dhaka city; Hoque & Hossain, 2004). Besides buses, the other common modes of transport are rickshaw (39%), walking (19.9%), and passenger car (4.3%; Sustainable Urban Transportation Index, 2018). The primary objective of the study was to explore the interneighborhood mobility of the older adults for which buses and other modes such as auto-rickshaw (commonly known as CNG) and taxis are required. Though rickshaws share 39% of total trips, people predominantly use rickshaws to travel short distances within neighborhoods.

Within social gerontology, there is a recognition that the mobility and travel of older adults are key for well-being (Spinney et al., 2009) as they enhance social integration and independence by reducing isolation (Lucas, 2012). Transport studies have shown that older adults are the most vulnerable and marginalized group while accessing public transport due to their limited physical mobility (Park & Chowdhury, 2018; Satariano et al., 2016). They face greater barriers in public transport as compared to younger and able-bodied groups (Cuignet et al., 2019).

Physical barriers to get in, move around on-board, and get off buses have been identified as major barriers for older adults (Asplund et al., 2012; Gallagher et al., 2011). In addition, structural factors such as gaps between the platform and the bus and/or steep steps between platforms and buses, inadequate shelter, poorly lit streets, and safety have also been identified as barriers to accessing buses (Rosenberg et al., 2013). Vehicle design, such as the location of seats away from driver and entrance, has also been perceived as barriers for differently abled people and older adults (Gallagher et al., 2011).

Studies from high-income countries have focused on the unmet transport needs of older adults (Hjorthol, 2013; Nordbakke & Schwanen, 2015), but there is limited evidence on unequal access to transportation in low- and middle-income countries (Gorman et al., 2019; HelpAge International, 2018; Venter, 2011). There is a clear need to examine the inclusiveness of urban transport planning and the consequences of older adults' unequal access to public transportation in fast-growing and urbanizing low- and middle-income countries (Jamal & Mohiuddin, 2020; Thondoo et al., 2020). Our study thus aims to investigate key barriers to accessing buses in Dhaka, a low-middle income metropolitan city, and the consequences of these barriers for the everyday mobility of older adults.

Theoretical Background on Transport Inequalities

The World Health Organization (WHO)'s initiative "Towards an Age-Friendly World" framework aims to enable older people to actively participate in their communities. This has been an important framework for raising awareness about the impact of population aging on urban planning and management (Buffel et al., 2012). Within the framework, the WHO clearly states that access to transportation is a key factor that influences active and healthy aging: "Being able to move about the city determines social and civic participation and access to community and health services" (WHO, 2007, p. 20). They identify 10 issues that need to be addressed to ensure that public transport is age-friendly: (a) affordability, (b) reliability and frequency, (c) sufficient and relevant travel destinations, (d) age-friendly vehicles, (e) specialized services, (f) priority seating, (g) courteous and responsible transport drivers, (h) safety and comfort, (i) transport stops and stations, and (j) information. Hallstahammar municipality in Sweden, for example, has initiated the Flex Line for safe, accessible transportation for older adults (WHO, 2019a). Through this Flex Line, older adults can easily book round-trip transportation to access neighborhood resources such as stores, health care centers, banks, and community centers. Similarly, as part of the age-friendly world program, Zrece municipality in Slovenia implemented free transport, called Prostofer, for older adults (WHO, 2019b). The main purpose of "Prostofer" is to improve the mobility of older adults and their participation in community activities. However, the implementation of age-friendly practices is more commonly seen in cities of economically advanced Western countries

(Fitzgerald & Caro, 2017). Conversely, Asian countries, with the exception of Hong Kong, have yet to implement many of the age-friendly aspects that are essential for the everyday mobility of older adults (Wang et al., 2017). In low- and middle-income countries, applying this framework is much needed but often governance and financial barriers hinder the implementation.

Older adults' barriers to public transport can be understood through transport disadvantage-related social exclusion (Lucas et al., 2016). This approach focuses on how mobility and social exclusion are interrelated, highlighting barriers that constrain people from participating in economic, social, cultural, and political life. Lucas (2012) argues that transport-related social exclusion is not only limited to the inaccessibility of transport services but also includes socioeconomic deprivation caused by poor health, low education, precarious employment, poor economic security, and low levels of social participation. Transport disadvantage reduces accessibility to opportunities, services, and social interactions, hence risking social exclusion (Kenyon et al., 2002). The framework also explains that social barriers such as lack of good service, availability of public transport, frequency, behavior, and attitudes of the transport personnel exclude older adults from accessing public transport. With this theoretical background, this study intends to advance our understanding of the challenges of accessing public transportation in a South Asian context of congested neighborhoods with narrow streets by addressing the following two research questions. First, what are the physical and social challenges older adults in Dhaka face when accessing buses in their everyday mobility; and second, what are the consequences of these challenges for older adults?

Research Design and Methods

Participant Recruitment and Profile

Thirty participants aged 60 and older were purposively selected to provide insights into the barriers to accessing buses. Participants were recruited from two socioeconomically different areas in Dhaka, Rayer Bazar (in the northern part of the city) and Lal Bagh (in Old Dhaka located in the southern part of the city), to ensure that we captured the experiences of those who were more or less economically disadvantaged. Rayer Bazar contains mostly low-income households while Old Dhaka is largely made up of middle-income households. The participants were recruited through gatekeepers (such as a nongovernmental organization called "laughing club" in Old Dhaka and a primary school teacher in Rayer Bazar) who introduced us to prospective participants living in these neighborhoods. The majority of participants were recruited from the Fort ground (particularly for Old Dhaka) where older adults go for morning walks, from their workplaces, and from mosques where they go for religious activities in both neighborhoods. Lal Bagh, also known as *Puran* (Old) Dhaka, is characterized by *chipa rasta* (narrow streets), congested with rickshaws, bikes, and other transportation modes. Rayer Bazar is a slum area where the majority of people are engaged in construction labor, small businesses, government jobs, and factory work. Out of the 30 participants, 14 were from Rayer Bazar (five women, nine men) and 16 were from Old Dhaka. All the participants from Old Dhaka were men as unrelated men (particularly young men) were not allowed to talk to women due to cultural restrictions. The participants have different occupations and were chosen to represent a range of living situations, backgrounds, and travel requirements (Supplementary Section A). We collected data during January and February 2020, before the coronavirus disease 2019 (COVID-19) pandemic lockdowns started in Bangladesh. Our follow-up data collection was hindered due to the lockdowns and especially on mobility issues of older people with disabilities in Dhaka.

Visual Surveys

Three visual surveys were carried out to capture peoples' activities and behavior and map the spatial context (Margolis & Pauwels, 2011). Visual surveys are a research method that is used to understand and interpret the use of public spaces and built environment as experienced in the everyday lives of the participants (Markvica et al., 2019; Rose, 2016; Sanoff, 2016). Visual surveys in this study were conducted by noting down the physical barriers in accessing transport (e.g., boarding and deboarding, struggling to get into crowded buses), capturing different modes of transport, and activities of people. We purposively selected the streets and crossings that are the entry and exit points connecting the neighborhoods with the nearest bus stands. These streets are the most congested places where people come to access different modes of transport resulting in huge traffic flows, particularly in the morning and evening. Figures 1 and 2 are examples of how the visual surveys were recorded and presented. These figures refer to heavily congested areas of Azimpur bus stand from the Lal Bagh neighborhood (Figure 1) and Shankar bus stand from the Rayer Bazar neighborhood (Figure 2). Visual surveys at these streets helped us to get insights into the physical barriers, mobility behavior of older adults, and helped us to validate perceptions of the participants from the interviews. The surveys were conducted during peak hours for accessing buses from 09:00 a.m. to 11:00 a.m. and 05:00 p.m. to 07:00 p.m. The observations were noted down in the field notes and were used to develop thick descriptions.

In-Depth Interviews

We conducted 30 semistructured in-depth interviews with older adults who used buses for their everyday mobility to understand the challenges they face when accessing

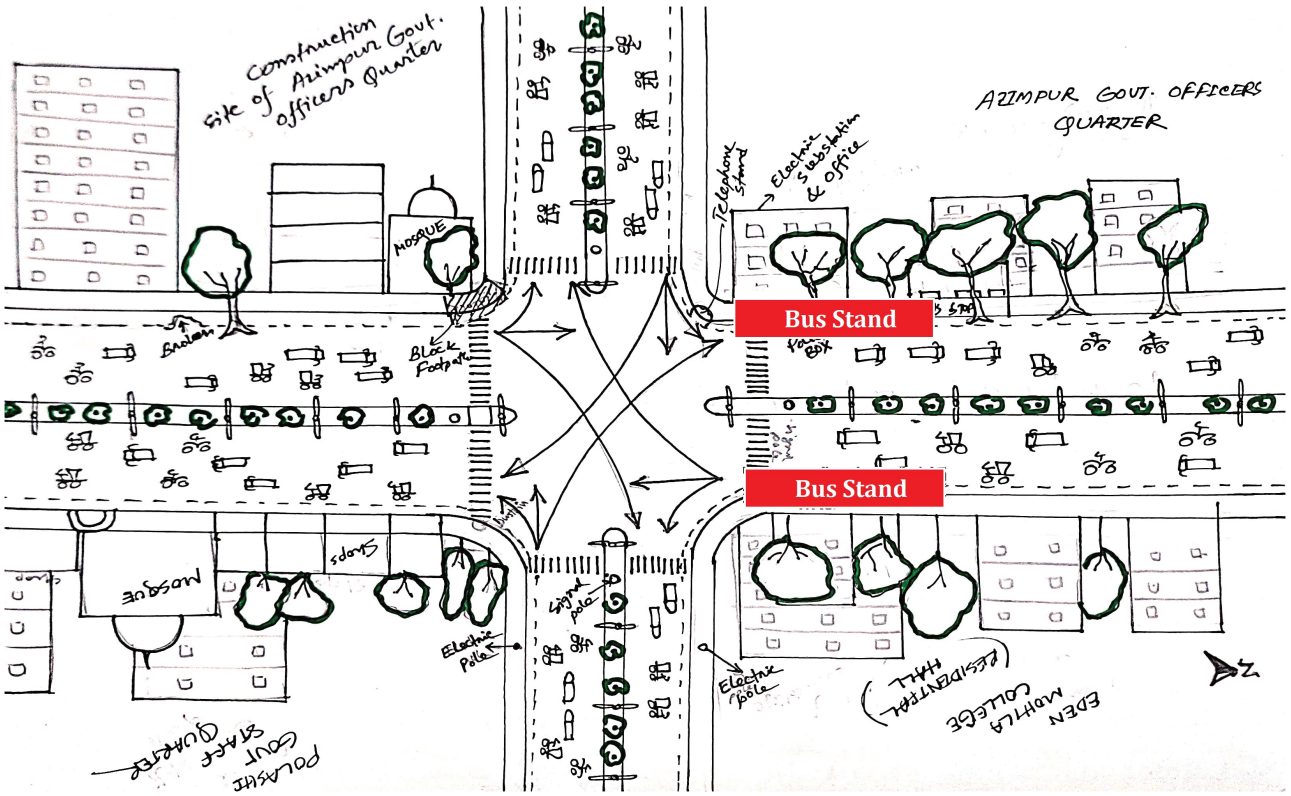

Figure 1. Azimpur bus stand at Lal Bagh neighborhood.

workplaces, health facilities, and maintaining social interactions (Taylor et al., 2015). The interview guides were translated from English to Bengali and were checked by local team researchers for their accuracy, because Dhaka Bengali is different from Indian Bengali. During translation, the local consortium members listed the terms that needed colloquial connotation. Thus, the translated interview guide was contextualized with local researchers for more appropriate terms used by participants in Dhaka. Then the interview guides were piloted with two older adults to check for flow and comprehensibility of the questions, probes, and the pacing and timing of the interview questions. Following the pilot, a few questions were rephrased and reordered to improve comprehensibility for the participants (Supplementary Section B; Hennink et al., 2020). All the questions were open-ended and the interviews guide was divided into three parts: (a) opening questions (to establish a rapport and make the participants comfortable), (b) key questions (insight questions including probes for core information), and (c) closing questions (to "fade out" from the interview). The interview themes included physical and social barriers to accessing buses and negotiating strategies in their everyday movements. The data were collected in Dhaka during January–February, 2020.

Ethics and Data Privacy

The study design was approved by the Ethics Committee at Utrecht University (Geo-L-19294). Participants provided verbal consent prior to the commencement of data collection and conducting in-depth interviews. The names used in the text are pseudonyms.

Data Analysis

The recorded data were transcribed verbatim into Bengali, the original language of the interview, to capture the information in the participants' own words, phrases, and expressions. These were then translated into English for textual analysis. In the translation process, we tried as much as possible to retain colloquial words to convey the contextual meaning. The interviews were analyzed through the Atlas.ti 8 software in two cycles to manage the following coding process (Hennink et al., 2020; Saldana, 2011). First, deductive codes were developed from the data based on the conceptual framework of the study (Table 1). The key concepts used in the conceptual framework are social inclusion and exclusion, accessibility, motility, public transport, neighborhood, barriers, and negotiating strategy. These are seen as interlinked and reflect the multidimensional nature of mobility. Inductive codes such as behaviors toward older adults, journey breaks, timing of travel, and coping with challenges were developed directly from the texts themselves. These inductive and deductive codes form the key themes to explain the challenges of accessing buses in Dhaka. In the second stage, codes were categorized and merged to develop code groups or code families for further analysis (Saldana,

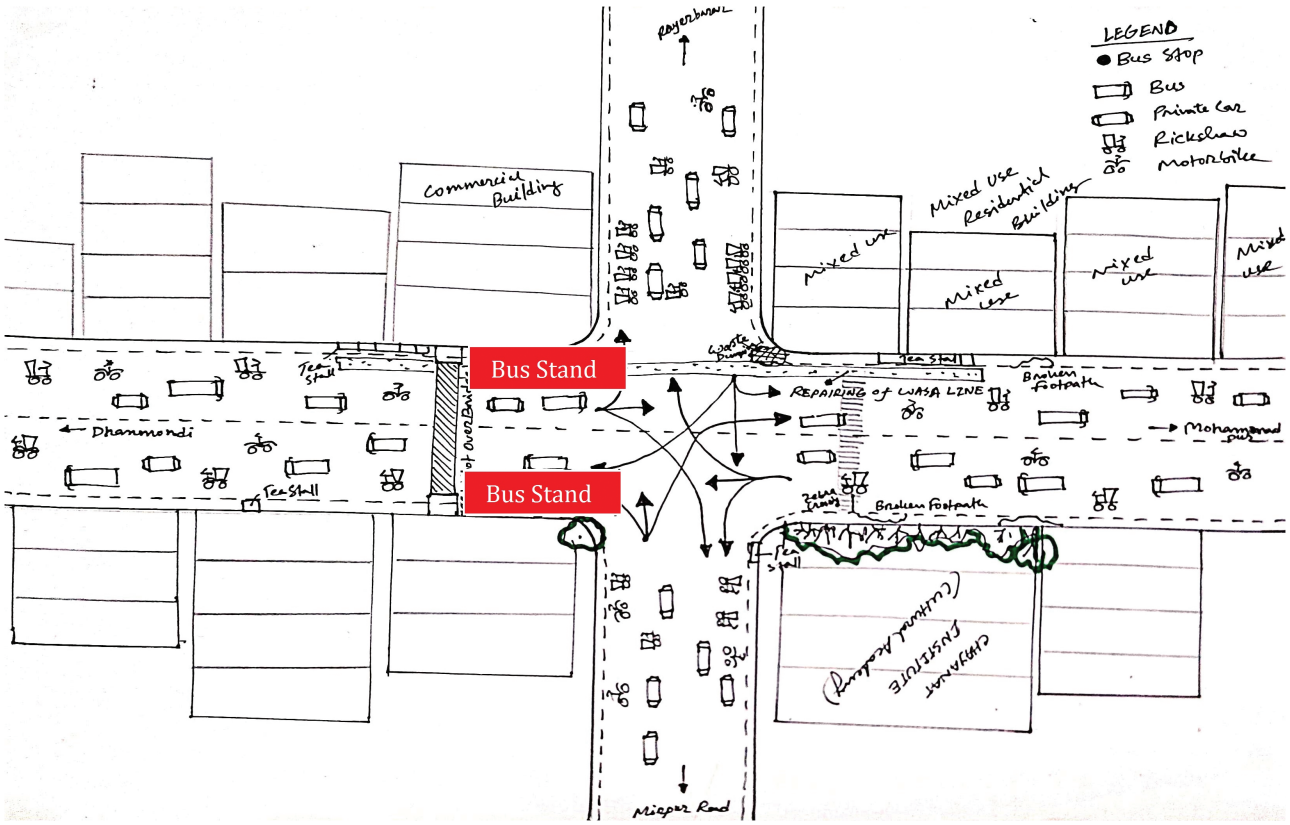

Figure 2. Shankar bus stand at Rayer Bazar neighborhood.

Table 1. List of Code Family and Codes for Older Adults

Code family	Codes	Example quotations
Barriers in public transport	Traffic congestion	*I was stuck in traffic jam many times. Last I was stuck when I was going Ghazipur. It was so congested that I felt it could have been better if we started walking. Apart from that if we go to work in places like Sadarghat, Hazaribagh and Secton we have to be in traffic. Here at least 1 to 2 hours traffic is common.* (Abdul Ahad, 66, construction worker)
	Barriers/experiences in bus	*The most challenging part about using the bus is while boarding. It is so difficult to board and deboard a running bus; you almost risk your life.* (Mohammad Ali, 62, AC mechanic)
	Break journey: challenges while traveling in buses	*Buses are available, but sometimes we have to wait. Sometimes direct bus for my destination is not available, so I have to break my journey through changing buses. This is the major problem.* (Abdur Rahman, 62, medical shop owner)
	Behaviors toward older adults	*No. These days I don't find sympathy or good behavior. In the past, people allowed us to ride first. But now! What days we have to face!! People behave like no one knows anyone. Moreover, bus drivers generally don't want to follow the signals. They misbehave not only with me but also with other passengers.* (Asma, 63, working in a pharmaceutical company)

Note: All names are pseudonyms.

2011, 2008; Supplementary Section C). We developed code families related to barriers on buses based on our research objectives (see Table 1 for code families, codes with example quotations). Each code was described comparing different statements and quotes made by the participants. Quotations presented below have been checked for purpose, clarity, and relevance to the arguments developed in the analysis (Hennink et al., 2020).

For methodological rigor and data validity, the overall project was designed by A. Bailey, M. Helbich, and M. Hyde, S. Jahangir conducted the pilot, consulted with M. U. Hasan and S. Hossain, and made subsequent changes to the interview guide. The coding was checked by principal investigator A. Bailey, and the consistency was checked by S. Jahangir. In cases that we had doubts or disagreements, we rechecked the linked codes. The first

author analyzed the data and this process was supervised by A. Bailey. Local contextualization was checked with M. U. Hasan and S. Hossain. All the authors of this article agreed with the methods used to analyze the data. The team members are from different disciplines, which helped in the analysis and writing of the article. A. Bailey is an anthropologist and demographer, S. Jahangir is a social geographer, M. U. Hasan is an urban planner, S. Hossain has expertise in development and governance, M. Helbich is a human geographer, and M. Hyde is a gerontologist.

Results

Traffic Congestion: "Main Problem Is Traffic Jam"

The older adults reported that they always get stuck in traffic that prolongs their journey. Buses are the main source of transport for older adults in lower-income groups. The precarious journey starts from the bus stops that are extremely busy during peak hours. Rokon lives in the Rayer Bazar neighborhood and goes to different parts of the city for construction works with his tools. He faces many challenges while walking with these tools to the nearest bus stop, Shankar, due to congestion (Figure 2). Sometimes the buses do not allow them to get in with the tools as they will occupy more space within the buses. As seen in Figure 2, Shankar bus stand is the nodal center for commuting with surrounding neighborhoods, including Mohammadpur, Gabtoli, Mirpur, and Dhanmondi. Sometimes Rokon has to stand a few meters behind the bus stand to avoid the crowd at the main bus stand. But this strategy can also prolong the journey as the buses get fully occupied in the meantime.

> I have gone to many places for work like Gulistan or Gazipur. While going to these places, I have faced huge traffic jams, buses are overcrowded. It is difficult to ride on these buses. (Rokon, 60, construction worker)
>
> Arey (expressing irritation) it is so painful. When we come back tired from workplaces and stuck in a jam we feel like hell, it is so painful and exhausting. Every day we have to spend 2 hours in traffic; if we could reach home early we could have taken bath and dinner and could have taken a rest but traffic congestion delayed our reaching home. You can see the ocean of vehicles. Sometimes we become so annoyed that we start walking. Our work is such that we have to come back in the evening when the traffic is at peak. (Abdul Gofur, 64, construction worker)

Difficult to Travel on the Bus: "We Cannot Get In"

The most difficult part of accessing a bus is getting into it due to overcrowding and many people hanging on to the entry of the bus. Older adults had to push and shove to get into the bus. Older adults also report injuries when they try to board and stand in the buses as they cannot get something to hold on to in a moving bus. For example, Hasan Shekh and Mahabub Alam come out of their residences in the Lal Bagh neighborhood and reach the nearest bus stand Azimpur (Figure 1), but they cannot get into the bus easily because of overcrowding. As seen in Figure 1, both of them come from the densely populated Chawkbazar area of Lal Bagh neighborhood on rickshaws through *chipa rasta* (narrow lane) to take the bus at Azimpur bus stand. This is one of the most crowded bus stands which connects the Lal Bagh neighborhood with surrounding neighborhoods such as Ramna, New Market, and Gulshan. During peak hours (office and school time), older adults often have to miss buses to catch a less crowded bus. Such restriction to access due to overcrowding prolongs their travel time.

> The most important problem that we face while taking the bus is entering into it due to overcrowding. The get on–off system is very "pathetic and primitive." People push each other and get on and get off. Many times we have seen some people fall down due to mayhem. This also caused accidents on roads. (Mahabub Alam, 62, businessman)
>
> In the peak hour (office and school time), it is tough to think that we can ride on a bus. So, after missing/passing 3–4 buses then we may get one. But if I want to go somewhere near the stop they will not allow me to ride. (Aminul Haque, 65, prayer leader of a mosque)

Barriers While Traveling on Buses

After boarding, older travelers face another set of challenges as there are few seats available for older adults. This means they often have to travel hanging on to a rail or stand near the door which has the additional risk of being pushed out by people exiting the bus. This often leads to injuries and puts them in danger while traveling in an overcrowded bus. The congested, hostile, hot, and humid environment further increases the discomfort of traveling on the bus. It is not just fellow passengers; even the bus personnel push and move around to collect fares from the passengers. When Abdus Samad travels to Dhanmondi from the Old Dhaka neighborhood, he walks to the Azimpur bus stand (Figure 1) and takes the bus but rarely gets a seat. His precarious journey leaves him exhausted and increases the aches and pains in his limbs when he travels for a long time in an overcrowded bus. This can weaken his physical health due to both physical and psychological stress.

> A lot of times, I do not get a seat whereas I am not physically fit to stand through the entire bus journey. But having no option I stand and go, and then my knees and hands start paining. In such times I feel like getting

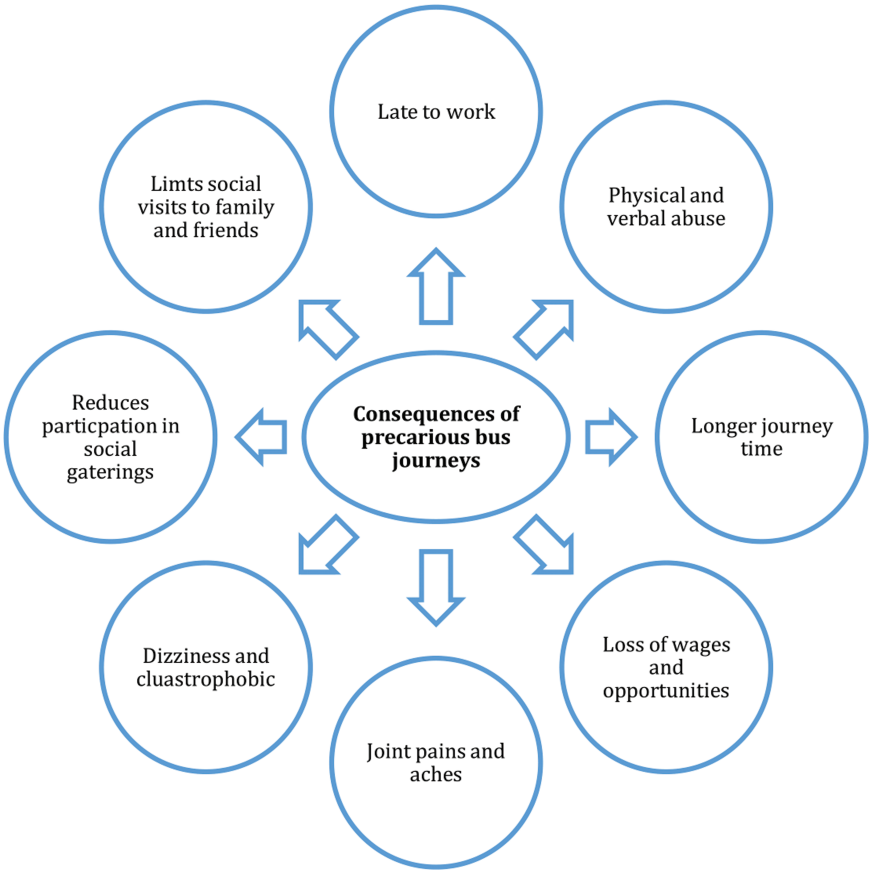

Figure 3. Consequences of precarious bus journeys for older adults in Dhaka.

down as soon as possible. (Abdus Samad, 63, petty shopkeeper)

One day I was coming from Tangail and was standing near the gate as I could not get in properly. The situation was that I couldn't even get down as it was a moving bus. I was literally hanging at the gate. I was not able to hold the rod for long even, I thought I would die today. (Hasan Shekh, 65, working in the Health Ministry department)

Gender Harassment: "We Have to Wait Till We Get Chance to Ride on It"

Older women face multiple barriers: difficulties in boarding buses and fear of being harassed inside the crowded buses. Sometimes they feel uncomfortable getting on the buses as the conductors or helpers keep standing at the narrow entry gate. They would need to push through to get in and risk unwelcome bodily contact with the men standing at the entry gate. Though a few bus seats are reserved for women, the number is insufficient and forces older women to wait longer to get a less crowded bus. Often women must argue with and demand that male passengers vacate the seats reserved for women. The lack of respect for women often leads to harassment while traveling in buses as the male passengers misbehave over seats.

> The male passengers grab those seats. Some of them leave those reserved seats when any female passenger enters the bus. But some ask, Didn't we pay money? Don't you see that there is no space? Why do you ride on such a crowded bus? And don't give us the chance to take the reserved seats for female passengers. (Mahmuda, 68, working in a hospital)

> People often ask in louder voices "why did you ride on the bus in such congested condition and misbehave." I say how long I will wait. It's been a long time since I left the office (7 p.m.), so why not ride on the vehicle. Many times, people are angry with me. (Asma, 63, working in a pharmaceutical company)

The consequences of precarious bus journeys affect the daily lives of older adults in both the short and the long term. Figure 3 depicts the various consequences of older adults making/not making these journeys. Older adults observed that difficulty in accessing buses sometimes leads to frustration and physical symptoms such as headaches, neck pain, and injuries. In addition, the inaccessibility of buses adversely affects the mental health of older adults.

Older adults also complained of feeling suffocated while traveling in overcrowded buses and of breathing problems as they have to inhale smoke and dust while waiting for buses.

Loss of wages and work opportunities have an economic impact, whereas the social and mental health impact is much higher, which can lead to feelings of loneliness and social isolation. After reaching home tired, they could not interact with family members. Some of the participants attributed congestion and consequent difficulties of travel to have caused hypertension and anxiety. The older adults feel that they are becoming more annoyed and intolerant due to everyday challenges while accessing buses for essential services.

> It increased my (blood) pressure. I came back and applied an ice pack on my forehead. The back of my neck was painful. I took medicine for pressure and then slept. (Habibur Rahman, 63, shopkeeper)
>
> Ah Ha … (being excited). See if I start my journey at 10 for office and reach at 12 what the manager will think, his time is also valuable. How long one can give excuses and how long will he tolerate this? Trust issue also comes into it particularly for private workers. (Mahabub Alam, 62, businessman)
>
> My sister in-law's house is at Jatrabari, when I need to travel there, I feel feverish. This is not only for me; I think the same is with many people living here. Though we can go there but coming back is problematic. Another relative is living at Borpa; so when we hear anything from there we feel horrified. (Amjad Hussain, 60, medical shop owner)

The COVID-19 pandemic has strictly restrained the mobility of people to a larger extent. Given the lockdown situation due to the pandemic, we have conducted a follow-up online survey during July 2020. Fear of using public transport, safety and risk of stepping out, social distancing, anxieties, worries, and concerns around their overall health and well-being were the major challenges of mobility for older adults. Due to the fear of using public transport, people preferred either to stay inside or use personal vehicles that reduced the traffic congestion in the city during the strict lockdown.

Discussion and Implications

Our results showed that the majority of older people are dependent on buses and very few older people use private cars. For lower-income older adults, it is the major source of mobility. Crowded spaces and congestion are major barriers to accessing public transport by older adults as they feel both uncomfortable and unsafe, especially in the Global South (Park & Chowdhury, 2018). A lack of proper entry and egress facilities puts older adults at risk of falls and injuries (Bezyak, 2017). With no clear queuing system or providing separate paths for older adults, such situations are often fraught with fear of falling when being pushed around. This finding is also consistent with the issues of WHO's Age-Friendly Cities guidelines, which reported that crowded public transport, particularly during rush hour, raises safety issues for older people in many cities. For instance, pushing and shoving in Jamaica are reported to be common problems for older adults at bus stops and on boarding buses. In Moscow, older adults feel suffocated in the railway station. However, overcrowded public transport is also experienced in a few developed cities, like Dundalk, Portland, and Saanich, where older adults face challenges in their everyday mobility (WHO, 2007).

Traffic congestion is a major challenge in most developing countries. Unusually long waiting times and journeys affect both physical and mental health (Mahdavi & Binaei, 2017; Shrestha et al., 2017). Being stuck in traffic congestion and consequent exposure to air pollution for a longer time may also trigger stress and put older adults at risk of anxiety and depression (Nadrian et al., 2019). Though rideshares such as Obhai, Uber, Shohoz, Pathao, and SAM may take passengers faster to the destinations, older adults are reluctant to use such newly introduced modes due to the high cost and risk of accidents. Hence, the affordable buses "for older adults only" may be implemented to shorten travel time caused by traffic congestion. However, the recent COVID-19 pandemic situation has forced people to maintain social distance and the perceived risks of contracting the virus in public transport have reduced the mobility, particularly of older adults. In addition, the COVID-19 pandemic has put the lives of many on hold and triggered anxieties, worries, and concerns around their overall health and well-being. Increased irritability, emotional exhaustion, exacerbation of preexisting conditions, poor concentration, and fatigue are some of the examples of such mental challenges.

The transport disadvantages including barriers to accessing buses harm the work, economic, and social interactions of the older adults. Older adults living in inner neighborhoods are not well connected to the nearest bus stands due to a lack of last-mile connectivity. Hence, they have to spend more time and resources to access public transport. Such transport disadvantage also negatively affects the life satisfaction and well-being of older adults (Webber et al., 2010). Hence, last-mile connectivity of the neighborhoods needs to be improved with nonmotorized transport modes so that the older adults can safely reach the main bus stands.

The built environment, including poorly designed and maintained roads and bus stops, lack of shelter, and vehicles without ramps, creates physical barriers for older adults (Risser et al., 2010). The behavior and attitude of drivers, notably stressed drivers, are also perceived as barriers as these produce feelings of insecurity and unsafety. In addition, some of the drivers stop vehicles far from the platform; sometimes they even misbehave with older adults (Bezyak et al., 2017; Park & Chowdhury, 2018). Recent

gerontological studies argue that transport challenges isolate and exclude older adults from comprehensive participation in everyday activities (Al-Rashid et al., 2021; Townsend et al., 2021).

Older women face more challenges when accessing buses as they find it difficult to get in a crowded bus and feel uncomfortable due to the undesirable behavior of men and harassment to claim their seats. Hence, WHO's Age-Friendly Cities framework, which recommends priority seating and passenger courtesy, fits well as it advocates giving seating priority to older adults in public transportation. For instance, passengers in Islamabad practice priority seating for older people in buses (Adeel, 2016). In addition, older women are exposed to unwanted touching and sexual harassment in crowded public buses (Madan & Nalla, 2016; Mellgren et al., 2018). Patriarchal attitudes, low-bargaining power of women in public spaces, and inadequate implementation of rules around reserved seating create more barriers for older women. Transport policy and its implementation are also often blind to the mobility needs and safety of women in public spaces (Chafai, 2020; Graglia, 2016). The implementation of "women-only buses," similar to those in India (Delhi and Bengaluru), may address the issue of sexual harassment of older women in public transport.

Older people adapt multiple personal strategies to avoid traffic congestion and other transport challenges (Ho, 2019; Nieto et al., 2020). In the process of adapting to transport disadvantages, they often have to delay or forego accessing health services and social interactions that gradually marginalize them by reducing mobility (Lucas et al., 2016; Uteng & Lucas, 2017). In this regard, "Transit Training for Enhanced Mobility" and "Impronte" ("Footprints" in English), as part of the age-friendly framework, could be implemented in Dhaka to promote active and healthy aging through the use of technology. It helps older adults to know about transport options in their neighborhoods.

Taken together, our results call for more inclusive transport policies for safe and efficient access to public transport for older adults. To address the challenges of accessing public transportation, the Dhaka transport authority could introduce special bus services "only for older adults" and "women-only buses." In addition, for short-distance travels, nonmotorized modes of transport such as rickshaws and walking (for able-bodied older adults) should be encouraged. Hence, the footpaths also need to be improved for better walkability. Besides, Dhaka transport authority can adapt and implement some of the major features of WHO's Age-Friendly Cities guidelines such as introducing "age-friendly vehicles" that are safe, comfortable, and have low floors; priority seating for older adults; sensitizing the transport personnel (drivers and conductors) to halt buses at designated stops; and ensuring ramps and seating places at bus stops for older adults' equitable access to public transportation. In Dhaka and similarly congested cities in low- and middle-income countries, we also recommend greater intersectoral coordination between transport authorities and urban development ministries to achieve inclusive transport and improve access to key services for older adults and other vulnerable groups.

Conclusions

This study identified key physical and social barriers to access buses and subsequent negotiating strategies of older adults for their safe and effective urban mobility in areas where transport infrastructure is limited. Our findings highlight that boarding and deboarding from buses are pressing barriers for older adults due to overcrowdedness and traffic congestion. For older adults, in particular, traveling in a bus is not comfortable due to limited space to sit; many older adults indicated that they feel suffocated while traveling in a compacted bus but they are helpless in such situations. The interior design of buses with its railing and seating arrangements is also not suitable for older adults. Besides, the older adults face social challenges such as undesirable behavior of transport personnel and co-passengers, gender harassments, and low socioeconomic background which contributed to social exclusion. However, these findings should be interpreted with care due to the following limitations. The study was carried out in neighborhoods with greater access to different modes of transport in the city. Studies in neighborhoods with limited access to many modes may show a more different, if not more severe, picture. Studies are also required to be done to see if unequal access to modes affects route choice and vice versa.

Supplementary Material

Supplementary data are available at *The Gerontologist* online.

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Conflict of Interest

None declared.

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