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Strengthening Pedestrian Policy Towards Active Mobility of Older Adults

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ABSTRACT

Ageing may place older adults at a walking disadvantage in accessing their destination. A survey involving 497 older adults from all Klang Valley municipalities was conducted to examine the older pedestrians' travel characteristics. Most of the older pedestrians are women, Malay, uneducated, housewives, from the B40 income group, divorced/widowed, and live in flats/apartments. Mostly didn't drive or has stopped driving. Most of their excursions were to the neighbourhood shops and public transport facilities. Lack of lighting, public restrooms, seating, nearby destinations, crosswalks, smooth sidewalks, signage, and safety were issues during their trips.

Keywords: Mobility, older adults, older pedestrians, transportation, travel behaviour, trip characteristics

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INTRODUCTION

Ageing hampers functional mobility and impacts walking activities. It can undermine older adults' self-care, health, and well-being. Additionally, their surrounding environment often deters their walkability (Bargi et al., 2017). This has to be addressed at the policy level. Therefore, this study will examine older pedestrians' activity and the challenges they face.

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METHODOLOGY

The Consortium on Mobility and Transportation in an Ageing Society (CoMTAS) seeks to address the mobility and transportation issues of older adults. A cross-sectional study was conducted with a randomly selected cluster sampling of Klang Valley older adults aged 55 years and older. Respondents completed a self-administered questionnaire survey that covered sociodemographic, socioeconomic, household characteristics, living environment, health, and disability status, as well as travel modes, demands, patterns, and barriers. Descriptive statistics were used to describe the travel characteristics of respondents who primarily walk to their destinations. Additionally, multiple logistic regression analyses were performed using SPSS version 26 to identify significant factors influencing walking behaviour, while adjusting for baseline characteristics.

RESULTS AND DISCUSSION

Of 497 respondents, 51.5% were actively walking to their destination. Older pedestrians are mostly from the age group 61 to 70 (78.0%), women (59.5%), Malay (57.6%), had no education (72.0%), housewife (59.3%), from B40 income group (76.0%), divorced/widowed (69.2%), live in flat/apartment (78.0%), never drive (88.9%) or had ceased driving (83.3%), has public transport infrastructure near home (81.5%), walk to the public transport facilities (50.2%), ride public transport (85.8%), had comorbidity (51.7%), had musculoskeletal pain (61.7%), had no walking impairment (50.5%), and not using walking device (95.9%).

The most common trip made by walking as the primary mode of transportation is to neighbourhood shops (38.6%). The average walking time was 9.3 ± 7.6 minutes, and 37.6% of respondents reported walking there sometimes, while 32.7% walked there often. This was followed by the place of worship (34.0%), community centres (26.3%), and sports or recreation sites (19.7%). Table 1 summarises the trip characteristics of respondents who choose to walk as the primary mode of transportation to their destinations.

Table 1
Trip characteristics of respondents who walk to destinations

Common travel destination	Walking mode (%)	Average distance (minute)	Trip frequency (%)			
			Always	Often	Sometimes	Rarely
Neighbourhood shops	38.6	9.3 ± 7.6	7.3	32.7	37.6	21.2
Places of worship	34.0	7.9 ± 12.6	21.6	40.3	21.6	15.7
Community centres	26.3	9.5 ± 21.7	2.5	17.7	22.8	54.4
Sport/recreation	19.7	9.9 ± 9.4	20.0	10.9	21.8	38.2

Table 1 *(continue)*

Common travel destination	Walking mode (%)	Average distance (minute)	Trip frequency (%)			
			Always	Often	Sometimes	Rarely
Workplace	11.2	22.1 ±11.1	60.0	26.7	0	0
Malls or markets	10.7	12.4 ± 11.6	2.3	20.5	36.4	36.4
Local services	8.7	15.5 ± 12.1	3.1	12.5	34.4	37.5
Relative/friend's house	6.9	7.3 ± 3.9	16.7	25.0	12.5	37.5
Education centres	6.5	11.8 ± 6.0	0	37.5	12.5	37.5
Health centres	4.4	23.9 ± 18.6	0	11.1	50.0	38.9

Factors that are significantly associated with the pedestrian activity among respondents are female (aOR:1.038, p<.001), living in a flat/apartment (aOR: 1.582, p=.005), living in a low-cost flat (aOR:1.093, p=.040), and using the bus as a mode of transportation (aOR: 0.865, p=.005).

The most common obstacles faced by respondents when walking to their destinations include a range of infrastructure and safety issues. These include poor lighting (52.5%), the lack of public toilets (52.2%), and seating benches (48.5%), making long walks uncomfortable. Many pedestrians also face the challenge of having to walk long distances to reach their destinations (44.5%), as well as insufficient pedestrian crossing times (40.5%) that make it difficult to cross busy roads. In some areas, crosswalks are not available at all (39.8%), and uncovered drainage systems (38.7%) pose a risk of mishaps. Sidewalks were also found in poor condition, with uneven or not smooth surfaces (38.0%) that make walking hazardous, while the absence of proper signage (37.6%) further complicates navigation. Additionally, a significant number of pedestrians feel unsafe when walking (37.4%), which can discourage walking and contribute to a sense of insecurity in public spaces. Figure 1 shows the summary of obstacles faced by respondents when walking to a destination.

This finding aligns with prior studies by Bargi et al. (2017), Rashid et al. (2018), and Bakhtiar et al (2022). The study makes a key theoretical contribution to the understanding of older pedestrian mobility by identifying various obstacles that hinder their walking experience. It underscores the critical role of infrastructure, such as adequate lighting, public amenities, and the quality of sidewalks, in shaping pedestrian mobility (Noor et al., 2022). The absence of essential facilities such as crosswalks, sufficient crossing times, and proper signage highlights the urgent need to improve safety and accessibility for older pedestrians.

Moreover, the study deepens our understanding of how urban design can better support older pedestrians. It advocates for an institutional approach to promote the development of elderly-friendly pedestrian infrastructure, addressing the challenges older adults face

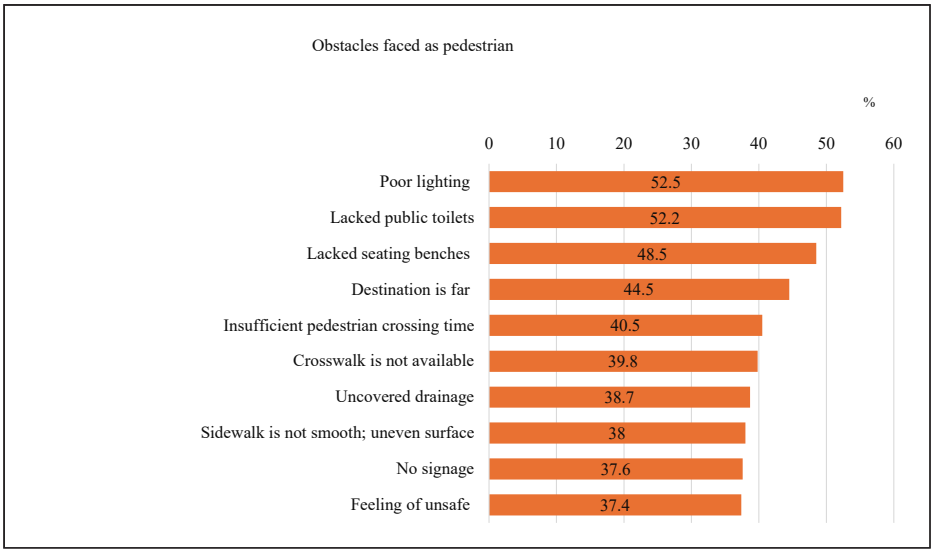

Figure 1. Summary of obstacles faced by respondents when walking to a destination

while walking. This includes enhancing lighting, public restrooms, seating, sidewalks, crosswalks, signage, and overall safety in pedestrian areas. Additionally, reducing the distance between key destinations and improving their accessibility, especially by walking, should be prioritized to further support older adults in the community.

CONCLUSION

There were significant challenges for older pedestrians in reaching their point of interest, particularly those in marginalized groups, including women, those who were uneducated, in lower income brackets, housewives, divorcees or widows, unable to drive, or had health and mobility needs. Future transport policies should prioritize the development of pedestrian infrastructure that is specifically designed to meet the unique needs of older pedestrians. The vital place must be located in a more convenient location for them. Moreover, integrating it with public transportation facilities can improve their mobility.

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