

The Built Environment, Health, and Social Determinants of Older Adults' Walking Patterns in Singapore

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Abstract

Walking is a basic everyday activity for healthy ageing. While it is increasingly recognised that older adults' walking patterns are shaped by a complex system of health, social and environmental factors, few empirical research has studied these factors together in high-rise, high-density urban areas. This study is the first large empirical research in Singapore to examine the effects of health, social and built environment factors on older adults' walking pattern using the notion of life-space. Survey and physical assessment data were collected from a valid sample of 933 community-dwelling older adults (aged 50 years and older). Data was analysed using Confirmatory Factor Analysis and Hierarchical Multiple Regression techniques. The findings indicate that older adults' weekly walking duration is determined by a multifaceted suite of factors, including perceived features of neighbourhood-built environment, physical and mental health, and social support. The study also reveals the statistical significance of an often-ignored factor – perceived walkable distance – for understanding older adults' walking patterns. A measure of perceived walkable distance was proposed and tested to capture the role of perceptions of walkable distance (and the underlying interpersonal diversity) in explaining older adults' walking patterns. Another key finding is the non-linear relationship between perceived availability of local amenities and older adults' weekly walking duration. This further highlights the importance of identifying a more tailored spatial threshold to develop urban planning recommendations to support walking and active ageing in place, instead of a one-size-fit-all approach to the spatial distribution of local amenities.

Keywords: ageing, health characteristics, perceived built environment, social network, walking