

Interrelationships between perceived accessibility, public transport mode choice and activity space in peripheral areas: a conceptual framework

Abstract

Individuals experience important life-changing events during the course of their lives. These life-changing events may alter individual evaluations of accessibility of public transport and affect activity participation. For example, life changes such as leaving high school, starting tertiary studies, entering the market, getting married, and having children, have been reported to increase the likelihood of changing transport mode choices (Collings et al., 2022; Olde Kalter et al., 2021). This is exacerbated by spatial location with peripheral areas that experience precarious access to public transport. Spatial location can influence perceptions of accessibility of public transport which may impact public transport mode choice and affect activity participation (Pot et al., 2021). Participating in daily activities can be influenced by infrastructural (availability of varying public transport modes), geographical (spatial location relative to the available transport system), socio-economic (income, social status) and individual (perceptions of convenience, safety and comfortability) factors (Curl, 2018; Gao et al., 2022; Jamei et al., 2022; Lucas, 2012; Schönfelder & Axhausen, 2003; Tiznado-Aitken et al., 2020). These cross-cutting factors imply that there are differences in the ways that particular groups of individuals perceive access to public transport. Thus, some individuals may become more vulnerable than others. For example, young adults face a plethora of life changes in a short space of time, they become vulnerable and at risk of transport-related social exclusion. Some may have limited financial resources to spend on public transport with no access to private vehicles, while some may be constrained by spatial location such as those living in peripheral areas where transit accessibility may be precarious.

The consequences of the inability to access public transport can contribute to transport-related social exclusion and ultimately transport poverty (Lucas, 2012; Martens, 2006). Hence, it is important to consider subjective measures of accessibility when measuring public transport accessibility because calculated measures of accessibility may obscure the inequalities that people experience at the individual level (Pot et al., 2021). Gao et al., (2022) argue that the inclusion of perceived accessibility in understanding the factors that influence access to activity locations can illuminate disparities between those for instance, with access to cars versus those who use public transport; between households of different socio-economic status; and associated socio-demographic characteristics within a group. Notwithstanding these issues, to date, there is a paucity of research on factors affecting perceived public transport accessibility, especially for individuals living in peripheral areas.

This study aims to investigate factors influencing the perceived accessibility of public transport and the ultimate effect of these factors on public transport mode choice and activity participation for individuals staying in peripheral areas. A systematic literature review is conducted on the factors affecting perceived transit accessibility, transit mode choice, and activity space and the possible interrelations between these factors, especially in peripheral areas. Citation platforms *Scopus*, *ScienceDirect* and *Google Scholar* are scanned systematically for journal papers published between 2010 – 2023. The systematic literature review will include a combination of the keywords on perceived accessibility, public transport, mode choice and activity space. The literature review will result in a conceptual model on the possible interrelations between the abovementioned factors and highlight the areas that require further empirical research.

Keywords: Perceived Accessibility; Public Transport; Activity Space; Transport-Related Social Exclusion; Literature review

[552 Words]

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