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Application to contribute to mobilTUM 2024 - 13th International Scientific Conference on Mobility – Research Topic 'Shaping the transition towards mobility justice'

- **Title:** How to combat mobility injustices for older people? Understanding needs and perceptions through a mixed-methods approach in Munich, Germany
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- Key words: Mobility justice, older persons, accessibility, availability

Background and state of research:

Alongside the global trends of urbanization and climate change, western countries, including Germany, are facing demographic changes. With a thus increasing share of older people in the citizenry, requirements to urban and transport planning are expected to be altered, as cities are required to provide access to everyday basic services for all of their residents. In this context, it must be considered that seniors display other mobility patterns than an average adult, by undertaking shorter and overall fewer trips. Furthermore, the rate of non-mobile people increases with age. It can also be seen that the daily needs of aged persons differ from those of general adulthood, hence resulting in other purposes of mobility. Literature finds social inclusion and participation being essential reasons for older people to move outside of their homes, and the ability to carry out out-of-home activities contributing to personal well-being. [1–5]

Various social groups differ regarding their potential for being mobile. The resulting concept of mobility justice factors in the dimensions of service accessibility, transportation availability and exposure to traffic-related externalities. Apart from this, both circumstantial premises from the built environment as well as individual conditions, such as health and economic status, influence mobile behaviour. In consequence, the social group of older residents is likely to experience injustices in their daily routines and face the need to adjust to them within their mobility patterns. [1, 3, 6, 7]

Research has begun to consider in which ways and to what extent older persons are affected in their mobility needs, especially by ageing phenomena and resulting physical or mental impairments [3]. Apart from this, a special focus has been put on older people's safety as potentially vulnerable traffic participants [6]. Furthermore, existing research focuses on particular elements of mobility injustices towards persons of advanced age. These include, among others, the walkability of a neighbourhood, as well as health and wellbeing in everyday life. [8–11] However, perceptions and needs of individuals, their ways to cope with mobility disadvantages, and methods to allocate applicable strategies, remain to be addressed in depth, and thus lay the foundation of this work.

Research question:

Proceeding from the state of research, as outlined above, this work aims to answer the query of 'How to combat mobility injustices for older people?'. In order to approach this research question, three sub-questions are formulated. Firstly, it is key to understand 'How do older people perceive injustices in their mobility routines?', and, subsequently,



'How does this social group cope with the associated disadvantages?'. Finally, this work does not only identify fields of injustice, but also targets the question 'Which potential actions can be allocated to the identified mobility deficits?'.

Study area and methodology:

By employing a literature review at its beginning, this work compiles available research on aspects of mobility injustice and its effects on older people. It furthermore outlines existing strategies to adapt urban and mobility planning to this target group, as well as pointing out the deficiencies in considering individual viewpoints on age-friendliness.

The corresponding field work pursues the goal to gain in-depth insights on residents' needs and perceptions. Thus, qualitative interviews have been chosen, which are a research method particularly well suited when addressing older persons. The interviews are semi-structured, allowing for flexible follow-up questions depending on the responses of the interviewee. [12–14] This research was carried out in the shape of one-to-one conversations, both in public spaces and senior-specific community centres, during the months of October and November 2023.

For conducting the field work in Munich, Germany, the neighbourhood Waldtrudering, located in the south-eastern outskirts, has been selected. This mainly residential area can be characterized by an above-average share of older inhabitants as well as by high car ownership rates, compared to the rest of Munich. Previous analysis of neighbourhoods in Munich has found the social group of older people being disadvantaged by spatial circumstances in Waldtrudering. This concerns both accessibility to daily-life services and the availability of sustainable modes of transportation. By interviewing 33 residents, their mobility routines as well as their impressions of the existing infrastructure and services were enquired. Moreover, a special emphasis has been put on satisfaction with their routines and the perception of justice when being mobile.

Preliminary results:

Overall, it can be stated that mobility injustices are perceived if seniors are required to readjust their routines. They can also result from a perceived lack of awareness towards the needs of older people by other traffic participants or by transportation planners. Moreover, interviewees who are impaired physically or mentally are more likely to report deficits in justice. This includes access to desired points of interest, but also to public transportation. Walkability and the design of public spaces are relevant to seniors' mobility routines and their comfort and feeling of safety. Despite an overall satisfaction with the public transport network in Waldtrudering, private cars are widely used by the interviewees, especially for spontaneous travels and trips within Munich's surroundings.

The interviewed seniors reported key strategies to cope with mobility disadvantages. These range from adjustments in routing and times of travel to reliance on other persons, but can ultimately also result in the inability to take a trip. Furthermore, it was found that being mobile is associated with additional benefits for seniors. They deliberately choose active forms of mobility in order to maintain personal health and fitness. Keeping up personal routines and forming a daily structure are relevant to the participants, as well as the possibility for social interactions. Lastly, the interviewees value freedom of choice and independence regarding transportation.

This work is to be completed by evaluating measures for increased mobility justice and allocating them to the identified fields of action. Finally, experts from the senior council of Munich as well as from the respective city departments are to be included in this process, providing viewpoints on feasibility and suitability of measures.

References

- [1] J. Belz *et al.,* "Mobilität in Deutschland: MiD Regionalbericht Stadt München, Münchner Umland und MVV-Verbundraum,", infas, Deutsches Zentrum für Luft- und Raumfahrt e.V., IVT Research GmbH, and infas 360, Bonn, Berlin, 2020.
- [2] D. Duran-Rodas, S. Haxhija, and M. T. Baquero Larriva, "Mobility (In)Justice Atlas: Where does injustice happen in Munich?,", Clusters for future, Bundesministerium für Bildung und Forschung, and MCube Munich Cluster for the Future Mobility, München, 2023.
- [3] C. Nobis and T. Kuhnimhof, "Mobilität in Deutschland: MiD Ergebnisbericht,", infas, Deutsches Zentrum für Luft- und Raumfahrt e.V., IVT Research GmbH, and infas 360, Bonn, Berlin, 2018. Accessed: Apr. 25, 2023. [Online]. Available: www.mobilitaet-in-deutschland.de
- [4] S. Rammler and O. Schwedes, Eds. *Mobilität für alle!: Gedanken zur Gerechtigkeitslücke in der Mobilitätspolitik,* 1st ed. Berlin: Friedrich-Ebert-Stiftung Forum Berlin, 2018.
- [5] J. Zmud, L. Green, T. Kuhnimhof, S. Le Vine, J. Polak, and P. Phleps, "Still going... and going: The emerging travel patterns of older adults,", Institute of Mobility Research, BMW Group, 2017.
- [6] Land Baden-Württemberg. "Bericht der Projektgruppe "Mobilität im Alter": Verkehr." https:// www.baden-wuerttemberg.de/de/service/presse/pressemitteilung/pid/bericht-der-projektgruppemobilitaet-im-alter-2 (accessed Jun. 23, 2023).
- [7] S. Nordbakke and T. Schwanen, "Transport, unmet activity needs and wellbeing in later life: exploring the links,", *Transportation*, vol. 42, no. 6, pp. 1129–1151, 2015, doi: 10.1007/s11116-014-9558-x.
- [8] F. Alves, S. Cruz, A. Ribeiro, A. Bastos Silva, J. Martins, and I. Cunha, "Walkability Index for Elderly Health: A Proposal,", *Sustainability*, vol. 12, no. 18, p. 7360, 2020, doi: 10.3390/su12187360.
- [9] R. Bayar and M. Yılmaz, "Measuring age-friendliness based on the walkability indices of older people to urban facilities,", Urban Des Int, vol. 28, no. 1, pp. 35–51, 2023, doi: 10.1057/s41289-022-00194w.
- [10] S. Cinderby *et al.*, "Co-designing Urban Living Solutions to Improve Older People's Mobility and Well-Being,", *Journal of urban health : bulletin of the New York Academy of Medicine*, vol. 95, no. 3, pp. 409–422, 2018, doi: 10.1007/s11524-018-0232-z.
- [11] A. Zaidi, K. Gasior, E. Zolyomi, A. Schmidt, R. Rodrigues, and B. Marin, "Measuring active and healthy ageing in Europe,", *Journal of European Social Policy*, vol. 27, no. 2, pp. 138–157, 2017, doi: 10.1177/0958928716676550.
- [12] N. Baur and J. Blasius, Eds. *Handbuch Methoden der empirischen Sozialforschung: Band 2,* 2nd ed. Wiesbaden: Springer VS, 2019.
- [13] U. Kelle and C. Niggemann, ""Weil ich doch vor zwei Jahren schon einmal verhört worden bin …" Methodische Probleme bei der Befragung von Heimbewohnern," in *Perspektiven der empirischen Alter(n)ssoziologie*, A. Motel-Klingebiel and U. Kelle, Eds., Wiesbaden: VS Verlag für Sozialwissenschaften, 2002, pp. 99–131.
- [14] S. Lamnek and C. Krell, *Qualitative Sozialforschung: Mit Online-Material,* 6th ed. Weinheim, Basel: Beltz, 2016.