

ELDERLY MOBILITY UNDER THE MICROSCOPE: A MULTIDISCIPLINARY PERSPECTIVE

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Abstract

Mobility in later life is a key determinant in modern societies dealing with ageing population. Despite being studied in medicine, sociology and transport, this topic displayed findings which have been exploited within each discipline. Potential spillovers have thus not been pointed out yet. Contributing to filling this gap, this study is a multidisciplinary systematic review aiming at informing about the impacts of elderly mobility on dimensions of well-being and quality of life. We searched for peer-reviewed articles published from 2010-2019 by scanning different electronic databases (Scopus, Web of Science, PubMed and TRID). 78 studies met the inclusion criteria, of which 70% come from medicine, 16% from sociology and 14% from transport literature. Interestingly, a large variability in ways to define the mobility of the elderly was detected, together with a number of discipline-specific measures and related effects. Since the topic of elderly mobility is indeed multidisciplinary fruitful synergies among scholars are strongly encouraged in the future.

1 Introduction

Together with decreasing birth rates, advances in medicine and technology have pushed up life expectancy and are leading to ageing populations in both developed and developing countries (Cao and Zhang, 2016). In OECD countries, the share of people over 65 years old on the total population will reach 25.1% in 2050, from 7.7% in 1950 (OECD, 2015).

Nowadays, scientists and policymakers have shown growing attention on the issue of the ageing population, whereas in the past it was neglected. From an economic perspective, beyond raising concerns about the economic support for an increasing unproductive segment of the population, this concept mostly implies a variety of emerging implications on the health care (Abdullah et al., 2018; Aguiar and Macário, 2017), pension system, the general provision of consumer

products and services in the society (Metz, 2000) and environmental issues (Aguilar and Macário, 2017).

World Health Organization supports the approach of healthy ageing which prioritizes the enhancement of functional ability by actively encouraging all relevant sectors to work together, including mobility policies (WHO, 2018; Musich et al., 2018).

2 Objective of the paper

The aim of this paper is two-fold. On the one hand, to review systematically the literature on the effects of mobility on the elderly's life within different research fields (medicine, sociology and transport). On the other hand, to illustrate differences and similarities of their approach by bringing closer the results. In particular, this study aims to give answer to the following research question:

What are the effects of mobility on dimensions of well-being and quality of life (QoL) of the older people by scientists in medicine, sociology, and transport?

3 Methodological approach

The systematic review was conducted by searching the relevant articles in the electronic databases: Scopus, Web of Science, PubMed and Transportation Research International Documentation (TRID). We searched for the keywords "mobility" together with the words "elder*", "old*", "senior*", "late* life" "age*" and "aging. We specifically selected these words because they are quite broad in order to retrieve articles deriving from the focused disciplines. The search started in May 2019 (titles only). The idea behind this method is that we aim at getting studies that are exclusively examining elderly mobility and not just referring to it at some points in the article.

The following criteria for inclusion were used: peer-reviewed studies written in English, community dwelling or non-institutionalized elderly people over 60 years old, living in developed countries and papers that examined any effect of mobility on older peoples' life. The methodology used is in line with the guidelines of PROSPERO¹, an international database of systematic reviews, and the followed protocol is awaiting registration confirmation.

¹<https://www.crd.york.ac.uk/prospero/>

4 Description

4.1 Innovative aspects

Mobility of the elderly people is widely studied by researchers and scientists in medicine, sociology and transport and there is consensus that mobility is crucial in later life. Although the researchers within the various disciplines uncover a diversity of effects for the elderly people, the findings are mainly exploited in an intradisciplinary way. To the best of our knowledge, this is the first multidisciplinary study to stress the effects of mobility on the life of the elderly people. The advantage of a multidisciplinary approach is that it could reveal aspects of the topic that otherwise remain hidden (Murray, 2015), since the perspective of each discipline is substantially different.

4.2 Research

Searching in the electronic libraries, 3416 English articles were retrieved. After applying the set criteria, 78 articles (55 medicine, 12 sociology and 11 transport) were considered as relevant to answer the research question. The research has highlighted that the toolkit of mobility measures is quite broad and, more specifically, there are significant differences in defining and measuring elderly mobility by researchers not only between but also within the disciplines. Given that there is not homogeneity of the mobility measures, this leaves room for high sensitivity of the investigation of the effects of mobility on aging well-being and QoL..

5 Result of the reseach

Related findings are presented for each discipline, as follows.

MEDICINE: Medical researchers are interested on the impact of mobility as a physical ability for the performance of daily tasks and how it affects dimensions of well-being and QoL. The toolkit for mobility measurement is rich and contains both objective tests of functional ability and subjective self-assessments (through answers to targeted questions). The aim of the studies is basically to explore impacts on health conditions and to a lesser extent maintenance of independence and enhancement of well-being and QoL.

SOCIOLOGY: The sociological literature shows a mixed panorama. Mobility has a broader meaning of movement on the physical space, considering the means used to move or difficulties, and impairments in movement. The systematic review shows that mobility is found to be beneficial for health, independent living and social inclusion in later life.

TRANSPORT: In transport research, mobility is connected to travel modes that facilitate the movement and measurement tools were

detected accordingly. Although health, social inclusion and QoL implications were found, substantial and further empirical research is essential to clearly frame the role of mobility in later life.

6 Conclusions

The ageing of the worldwide population indicates that targeted research is crucial to give directions to policymakers on how promote effectively healthy ageing. Elderly mobility is a multidisciplinary research topic and should be treated in that way by researchers. It is a promising research field and our approach points to this direction.

The analysis outlines that there are some research gaps that can be afforded by further research efforts. First of all, there is the need to connect the effects of mobility with related measures. Since elderly mobility is measured by different ways, a comparison of two or more tools with respect to the same effect may tell us whether the measure selection is sensitive to the results. By this study, it is possible to create a multidisciplinary measurement for elderly mobility. Finally, for each type of mobility it could be explored its effect on health, independence, social inclusion, well-being and QoL (Active Ageing Index, 2013).

6.1 Barriers and drivers

Our systematic review has some strengths and some limitations. As regards the first ones, to the best of our knowledge, this is the first multidisciplinary approach to the topic of elderly mobility. Presenting in the same time the results of the three disciplines is a strong motivation for future fruitful collaboration.

Concerning the limitations, one of the drawbacks of the systematic review is that it presents only the state-of-the-art literature. However, there might be relevant studies that were published before 2010. To the authors' knowledge, since it is the first multidisciplinary review an earlier period multidisciplinary approach will be able to present the evolution of the topic. A second limitation is the selection of the keywords and the searching methodology. Although the selection was on purpose generic, so that we can get as much as possible studies, probably a different keyword selection could return back slightly different results. Finally, the search of the key terms considered only the article titles because of our intention to get studies that were entirely devoted to the impacts of mobility. However, there might exist studies appropriate for inclusion that do not contain the combination of our selected keywords.

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