

TeMA

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The mobility for the elderly population encompasses different dimensions of urban life including housing, transportation, work-related activities and social interactions. The initiatives for the elderly are mainly undertaken in the areas of health while in reality, this is only a part of the overall picture that might be considered while planning urban accessibility strategies.

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Elderly Mobility

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EDITORIAL PREFACE

Special Issue 2.2018

Elderly Mobility

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This Special Issue of TeMA Journal of Land Use, Mobility and Environment collects the research works of one of the sessions organised in the framework of the XX Scientific Meeting of the Società Italiana degli Economisti dei Trasporti e della Logistica (SIET), focused on the MOBILAGE (Mobility and aging: daily life and welfare supportive networks at the neighbourhood level) research project financed by Fondazione Cariplo within the "Aging and social research: people, places and relations" 2017 Call for scientific research. The session was addressed to investigate elderly (people aged 65+) mobility, by exploring the supply and demand of Local Public Transport (LPT) in urban areas.

The progressive ageing of population, particularly in developed economies (Myles, 2002; Groueff, 2015), is one of the issues that cities have to face nowadays and in the next years, according to the world urban population projections. In fact, improvements in nutrition, sanitation and medical care have increased life expectancy to a level never experienced by previous generations (Oeppen & Vaypel, 2002; Pugliese, 2011). It is estimated that, taking into account the 28 member states, in 2030 the European Union will have more people aged 65-79 years than aged 0-14 years. Moreover, in 20 years, the percentage of people over 80 years old – the so-called "oldest old" – will almost double. In particular, by 2030, Italy is projected to have the second oldest population in the world, after Japan (UN/DESA, 2015). In addition to an increasingly older population, Italy has a total fertility rate of 1.39 children per woman, considerably below the replacement level of 2.1 children per woman. Despite being recognized as a crucial issue of urban policies (OECD, 2015) and a central axis of investigation since it encompasses different dimensions of urban life, there is still limited knowledge regarding the relationship between the (physical and functional) organization of urban systems and how older people experience the city (Smith 2009; Altunkas et al., 2017). Studies related to the improvement of urban accessibility to open and built spaces and to activities of interest for elderly seem not to catch the attention of the scientific debate, compared to the other lines of research mainly focused on the

benefits of an active ageing in terms of health and mobility options. In particular, mobility promotes healthy ageing by providing opportunities for physical activity and movement whereas sedentary lifestyles, particularly at older age, increase many of the risks commonly associated with ageing (Masoumi & Shaygan, 2016; McPhee et al., 2016), thus increasing the healthcare expenditure.

According to Banister and Bowling (2004), mobility (travel) seems to form one important element in quality of life for the elderly, but the standard transport representations in terms of trips made, travel distance and transport mode only represents part of the picture. There have been substantial increases in travel by the elderly and their range of activity involvement is very varied. Banister and Bowling (2004), states that mobility, locality and social networks influence perceptions of quality of life, and their study shows that the perceptions of what constitutes quality of life for the elderly can be reconstructed in terms of six main 'building blocks':

- peoples' standards of social comparison and expectations of life;
- a sense of optimism and belief that "all will be well in the end";
- having good health and physical functioning;
- engaging in a large number of social activities and feeling supported;
- living in a neighbourhood with good community facilities and services (including transport);
- feeling safe in one's neighbourhood.

These factors seemed to contribute far more to the perceived quality of life than indicators of material circumstance, such as actual levels of income, education, home ownership or social class (Bowling et al., 2002). As the paper of the two authors has underlined, transport is important in terms of getting access to local services and facilities (building block 5), and in engaging in social activities (building block 4). The transport elements are reinforced by the importance of locality, neighbourhood and social networks (building blocks 4 - 6).

Nevertheless, both in the academic and urban governance field elderly are often depicted as fragile, lonely and marginalized: "they are usually mentioned in terms of numbers, but the analyses rarely result in concrete proposals and measures" (Gargiulo et al., 2018). In the absence of scientific evidence and knowledge of each specific context, these descriptions resemble pretty much myths and misconceptions (Rosenbloom, 1988). The risk is that these myths can confound the understanding of what the real needs of the elderly are. Moreover, these myths and misconceptions can mask actual fallacies of the transportation system by attributing, for example, a lack of accessibility to an inherent frailty of older users. Another element to take into account is that of time. People, who would have been included in a study on elderly 10 or 20 years ago, are not the same who are turning 'old' today – taking 65 years as the commonly used threshold for defining old age. In fact, those turning 'old' today and in the next years are the so called 'baby-boomers', which belong to the generation born right after the Second World War. Baby-boomers have benefited from many technological improvements developed during the last few decades. They are certainly healthier than the generation of their parents (Lubitz et al., 2003) and much more conversant with the use of technological devices. The other main feature is that baby-boomers are much attached to the use of private car, as they are the first generation who has fully experienced modern mobility based on a regular use of private automobile, and they are likely to retain this characteristic in the future (Burlando & Cusano, 2014; Berg et al, 2015). Therefore, effective public interventions have to take into account what are the socio-demographic characteristics of elderly people, where do they live and how they interact with their

physical and social environment (Bricocoli & Marchigiani, 2012) – including how they move in space and what are their preferences in terms of transportation.

Within this context, the research project MOBILAGE (Mobility and aging: daily life and welfare supportive networks at the neighbourhood level) aims at filling some literature gaps. First by developing an empirical research on elderly in Italy (municipality of Milan), exploring the supply and demand of LPT, and of welfare and community services, an issue that has been largely neglected in the academic literature, and in the Policy debate. Second, by carrying out the analysis at neighbourhood level because “space matters” and elderly behave differently according to the place they reside in. Third, by investigating the role of mobility in improving the elderly’s quality of life. Finally, the fourth issue concerns the definition of some “types” of elderly, showing different needs, mainly referring to travel behavior, and use of welfare services and community welfare.

MOBILAGE aims to develop new forms of governance for the urban accessibility of the elderly by defining decision support tool to public administrations to improve the urban accessibility of the elderly to the activities and services of their interest, thus contributing to increase their quality of life.

For this purpose, the main aims of each research unit are defined as follows:

- the team of the university of Groningen will coordinate the literature review, combing strand of literature on mobility issues and the use of public transports, the effect of ageing on mobility and the well-being effects related with ageing and mobility. The literature review will serve as a theoretical basis for the different empirical studies to be executed in Milan and Napels. The university of Groningen will also assist in the empirical research done with GIS Trackers, in which the university holds substantial experience. The respondents (elderly Italian) will be tracked for a period of time - specific time has to be decided on, depending on new insights gained in the different steps of the MOBILAGE process. The trackers will be worn on the body of the respondents for that period and all movement is recorded by GIS software, hence providing insights in daily mobility patterns and modal split of these elder Italians. The GIS data can be combined with personal characteristics, neighborhood characteristics GIS data and for example data on weather conditions and the like. This will allow us to gain in depth insight in mobility pattern of elderly people. Furthermore, we will conduct in depth interviews with the respondents before and after the tracking period, in order to clarify any fuzziness that might appear from the trackers. The mixed methods will consist of in-depth interviews, diary analysis and multivariate spatial regressions;
- the team of the University of Milan will define the profile and needs of elderly by direct survey spur from the interaction with some elderly associations. The survey is composed by seven main sections: (a) socio-economic data, demographic data, health status and physical functioning; (b) elderly social networks and social activities; c) travel behavior; (d) demand of LPT services; evaluation of the LPT service: strengths and weaknesses; (e) demand of the welfare services and community welfare: strengths and weaknesses; f) neighborhood where they reside: strengths and weaknesses; g) factors that mainly contribute to their (perceived) quality of life. The results will allow to: (i) identify the main types of elderly according to socio-economic and demographic characteristics, their health status, physical functioning, mobility patterns and propensity, social networks and social activities, etc.; (ii) investigate barriers, and obstacles old people face in their daily life; (iii) identify the demand for transport and welfare services, distinguishing bottom up practices of elderly residents; (iv) define which main patterns (i.e. elderly types, and neighborhoods’ characteristics) play a role in shaping the perception of the elders’ quality of life;

- the team of the University of Naples will define a methodology for classifying the different types of urban fabric, given the different levels of accessibility for the elderly people. The overlapping of the areas of influence of the many activities of interest and the "density" and distribution of these types of services, on the one hand, and the presence of protected pedestrian paths and local public transport stops, on the other, will allow to identify which portions of the area investigated are more adequately meeting the demand of the elderly segment of the population and which ones, instead, lack in physical and/or functional supply, also taking into account the morphology of the area. The team will also coordinate the activities to develop a GIS based supply-demand tool for ageing social service to help policy makers to identify the optimal location of new welfare services and/or the improvement of existing ones. The use of GIS platform will allow to provide a geographical distribution of the supply-demand relationship and accessibility to the welfare services in the study area of Milan. Starting from the analysis of the current situation, it will be possible to simulate different scenarios of intervention in order to identify the one that provides the best balance between supply and demand, in terms of cost-benefit. In particular, this GIS tool will be used by the local authorities to evaluate the effectiveness of different actions to improve quality of life of older people (i.e. locating and designing new places where elderly socialize, enhancing local mobility network).

Based on the contributions of scholars coming from different disciplinary backgrounds, the session allowed defining the state of the art on the issues concerned with policies aimed at "aging in place" with a focus on the implications in terms of related mobility issues and on the supply and demand of welfare services and community welfare.

In detail, the first paper "Mobility and accessibility of the ageing society defining profiles of the elderly population and neighbourhoods" intends to consider how to define profiles of ageing mobilities, discussing a methodology for detecting different elderly populations and neighbourhoods.

The second paper "Smart Mobility and elderly people. Can ICTs make the city more accessible for everybody?" pursues three main aims: (i) exploring the actions that can be implemented to ensure better accessibility for the elderly in urban areas; (ii) identifying the actions that should be taken into account to improve the elderly accessibility, through the study of some European projects ICTs based; (iii) analysing how Italian cities are declining the topic of Smart Mobility, with particular attention to the use of new technologies to improve the elderly trips.

The third paper "Growing old and keeping mobile in Italy. Active ageing and the importance of urban mobility planning strategies" seeks to investigate the connection between ageing and urban mobility planning in Italy through the reading of different statistical reports and strategic documents.

Then, the paper titled "Accessibility for the elderly in urban areas: a set of variables" proposes a set of variables that allow to define the offer in terms of urban accessibility (physical, functional and environmental subsystems) and the demand of the elderly population (socio-economic subsystem).

The paper "The tourist-religious mobility of the "silver-haired people": the case of Pietrelcina" proposes a reconfiguration of the territorial organization in order to prefigure a systemic territorial-supply aimed at improving particularly accessibility referred to older slow tourism, meant as an innovative form of territorial use.

The next paper "Measuring spatial accessibility for elderly. An application to subway stations in Milan" presents a method for mapping and measuring accessibility to subway stations for elderly, in order to identify the neighborhoods that present more accessibility problems.

The paper "Is Milan a city for elderly? Mobility for aging in place", investigated 11 Milanese neighbourhoods through face-to-face interviews addressed to a sample of 129 elderly to see how elderly perceive their neighbourhood in terms of mobility.

The paper titled "Measuring Urban Accessibility of Elderly People. An Application at the City of Naples" is to develop a GIS-based procedure to analyse urban accessibility of elderly people to support specific future planning strategies to improve quality of life of older people, considering the characteristics of local transport services and urban structure. For the quantitative validation, the developed GIS-based procedure is applied at the city of Naples selecting the municipality bus transport network.

Finally, the article "Key characteristics of an age-friendly neighbourhood" reviews and critically analyzes the literature on the contribution between key characteristics of the neighbourhood that improve the outdoor mobility of old adults, quality of life and well-being in a number of countries all around the world. It also aimed to identify gaps in the level of scientific knowledge about this subject.

We thank to everyone who has contributed to draw up the MOBILAGE draft and who are involved in its development. We thank in particular our colleagues Ilaria Mariotti, Fulvia Pinto and Floriana Zucaro who provided insight and expertise that have been assisting the research.

We would also like to show our gratitude to Mr Andrea Tulisi who is now engaged in different work activities and cannot contribute to the positive outcome of the research, despite having taken part in the drafting of the project.

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