

Transport Access for Ambulatory Care for Older People

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Abstract

Aim

Lack of transport has been shown to be a key barrier to accessing healthcare, with poorer associated health outcomes in those experiencing transport poverty. Our health survey aimed to assess the transportation needs of a population attending a geriatric ambulatory care unit and the role of transport as a barrier to healthcare attainment.

Methods

Data collection was via survey; the survey used was adapted from the Irish Translational Study on Aging (TILDA) and the questionnaire devised by Locatelli, Sharp, Syed, Bhansari, and Gerber in their research on urban transport barriers to healthcare. Results were compiled and analysed using descriptive statistics.

Results

In total 52 participants with a mean age of 81 years were included, of which 48 (92%) were accompanied to clinic by a caregiver. The most common mode of transport was being driven by an accompanying driver (43 [83%]), with the majority of these (43 [94%]) being driven by family members. Public transport was deemed unfeasible/highly unfeasible for attending clinic by 38 (73%) respondents. Only ten of the respondents were still currently driving (19%). Common indications for attending clinic included Alzheimer's dementia, Parkinson's disease, and orthostatic hypotension.

Discussion

Patients were largely reliant on family for transport to ambulatory care appointments, and public transport was seen as inaccessible for the majority; overall transport was cited as a cause of stress in attending clinic. Facilitating transport that maintains patient autonomy and dignity is an area of public interest requiring further study.

Introduction

Lack of transport—transport poverty—has been shown to be a barrier to accessing healthcare, especially among specific patient populations: women, disabled, older people, and people with chronic conditions¹. Potential transport barriers include distance, transport costs, time expended as an 'opportunity cost', as well as patient specific factors. The patient population in geriatric ambulatory care faces challenges that may not be seen in other groups, including increased frailty² and cognitive impairment³. The role of transport as a barrier to healthcare has been discussed in a number of other service areas, such as cardiac care, cancer, and asthma⁴. Patient health outcomes are poorer for anticoagulation services in those facing transportation barriers⁵. A literature review found that transport barriers had a negative effect on older people's access to general health services⁴. In the United States, those with a driver's license had 2.29 times more health care visits for chronic care and 1.92 times more visits for regular checkup care than those who did not: respondents who had family or friends who could provide transportation had 1.58 times more visits for chronic care than those who did not⁶. A substantial amount of unmet healthcare needs (40%) was due to transport challenges for rural older people in South Korea with no driver in their household⁷.

The US National Health Interview Survey in 2017 found that 5.8 million persons in the United States (1.8%) delayed medical care because they did not have transportation¹. Another study found that older people were unable to complete nearly 16% of the trips that they planned during the two-week study period, half of which were related to health and basic needs⁸. A study of rural-dwelling older adults found that 10.6% of respondents had cancelled medical appointments due to the cost of transport, or a lack of transport⁹; it was also found that receiving rides from friends, family, or volunteer driving programs was the most available transportation option in rural versus small population centres.

There is no literature on how transportation poverty and its impact on older people requiring specialist geriatric medicine care in Ireland. We aimed to assess the transportation needs of patients attending a suburban geriatric ambulatory care service, with the goal of clarifying the potential role of transport as a barrier to healthcare utilisation in this population.

Methods

Primary data collection was via a survey of patients attending the ambulatory geriatric medicine services based in a day hospital of a university teaching hospital serving a population of 500,000 with an urban, suburban, and rural catchment area. Data collection occurred over a 3-week period from 1 July 2024 to 19 July 2024. The questionnaire was adapted from the 'Driving/Travel' section of the patient questionnaire used in the Irish Translational Study on Aging and a questionnaire on urban transport barriers to healthcare¹⁰. The questionnaire was

administered by a researcher in the clinic and completed by patients with the assistance of accompanying caregivers if necessary. Data was analysed with descriptive statistics. The questionnaire aimed to assess the modes of transport utilised by patients, whether patients travelled alone or accompanied, and the costs associated with travel to the clinic. The perceived feasibility of public transport as an option for attending ambulatory care appointments was included. Furthermore, patient driving status was included in the survey. Ethical permission was granted by the Tallaght University Hospital Central Audit Register maintained by the Research Ethics Committee.

Results

A total of 52 patients participated in the study, 23 men and 29 women, with a mean age of 81 years, standard deviation 8.06. Primary indications for clinic attendance were Alzheimer's dementia (12), Parkinson's disease (8), orthostatic hypotension (3). Just over half attending (28 [54%]) had a memory impairment, including Alzheimer's dementia, Parkinson's disease dementia, mild cognitive impairment, dementia, and subjective memory impairment. Transport to clinic was by being driven by an accompanying driver (43), self-driving (3), by taxi (3), and a minority of multi-modality was noted with 3 being driven by a caregiver to their appointment and returning home by public transport.

Of those patients surveyed, 48 were accompanied to their appointment (92%), with a total of 64 accompanying persons, 26 men and 38 women. The mean number of caregivers accompanying each patient was 1.2, with a median value of 1. The 46 accompanying drivers were in the majority by immediate family members: spouse (9), son (9), daughter (18), more distant relations (7) and in only one case was a patient driven by a non-family member (neighbour). In the case of two patients, the relationship to accompanying driver was uncertain.

The average distance of the home of the accompanying driver to the patient was 7.5 km with a median distance of 1 km and a range from 0 km to 116 km. The average distance to clinic from the home of patients driven by an accompanying driver was 11 km, median 6.4 km (range 1–171 km). In calculating the average distance values, distances between 0–1 km were rounded up to 1 km for statistical ease. In those who drove themselves to the clinic, the mean driving distance was 4.7 km, median 4 km.

A majority of drivers (36) did not pay for parking, with 10 paying for parking, and 3 uncertain. A total of 17 accompanying drivers needed to take time off work to drive the patient (35.4% of overall accompanying drivers.) In relation to cost of transport, one patient paid for a taxi, costing €12.60, one took a courtesy taxi, and public transport utilised was free of charge.

The estimate of the average time involved in transport and clinic time was 114.3 minutes, with a standard deviation of 49.4 minutes, median of 90 minutes, and range of 45–245 minutes.

Only 2 patients recorded missing medical appointments due to transport problems in the previous year, three in one case and one in the other.

In relation to patient perceptions of public transport, 38 (73%) rated use of public transport as highly unfeasible or unfeasible for attending geriatric ambulatory services, 11 as unfeasible, 9 as feasible, and 3 as very feasible, with 2 uncertain. The rating for private transport options in their area, such as taxis and hackneys was 25 for excellent or good 13 for fair or poor: 14 respondents did not know. When surveyed on whether the lack of transport options in their area affected their lifestyle, 34 respondents were not at all affected, 8 were affected to some extent, 3 were affected a great deal, and 7 did not know.

When asked to nominate the mode of transport they used most often, the majority selected 'driven as a passenger by family,' (39), with others including driving oneself (6), city/urban public bus (3), Dart/Luas (2), taxi/hackney (1), and driven as a passenger by family/friends (1). Of the respondents, 14 had never driven and had 38 had driven at some point; of these, ten were still currently driving (defined as having driven more than twice in the last 12 months).

Discussion

The results of this study indicate a complex pattern of transport accessibility to geriatric medical ambulatory services, relying heavily on accompanying drivers, largely from the immediate family. This pattern differs from the general pattern of supported driving for older people in Ireland which predominantly arise from friends rather than family¹¹, but is likely explained by the need for information from and to the caregivers in diagnosis and management. This is reflected in the trend towards multiple accompanying persons seen in our data. A significant number of these accompanying persons need to take time off work (32.7%), and the cumulative distance for the accompanying drivers is significant. A small number of respondents reported missing appointments due to challenges related to transport, but a number of participants, patients and family, expressed that arranging transport represented a significant source of stress. This, however, must be interpreted in the context of the survey sample; less mobile patients or those with significant transport challenges are more likely to be offered domiciliary visits or to fail to attend appointments, leading to their exclusion from this sample.

Although access to public and private transport was rated as relatively good by the majority of participants, the rating of public transport use as unfeasible despite free access from age 66 points to the challenge of public transport for older people with frailty and complex care

needs; the overall impression was of a service that is available but not accessible. An element of this the recognised phenomenon of the risk of non-collision injuries in public transport¹². Respondents in our study also described walking distance from home to local public transport services as a major deterrent to public transport utilisation. In comparison to previous research¹¹, our study found that being driven by others was the most regularly utilised transport medium, and the rate of self-driving overall was also significantly lower. This may be reflective of the poorer health status of those attending a geriatric care unit compared to older people in the general population. Indications for attending clinic were wide-ranging, with comprehensive geriatric assessment undertaken in clinic by the multidisciplinary team; referral is from general practitioners or hospital. Notable also is the geographic variance of attendees; the data range of distance from home to clinic is reflective of the mixed suburban-rural catchment area of the clinic, and the relative urban clustering of geriatric ambulatory care services. A comparative study of urban and rural provision and accessibility of geriatric ambulatory care is an area meriting further study.

Interventions to reduce transport barriers to healthcare for older patients necessitate an innovative approach. The reduced mobility and accessibility older people experience are shared by other groups, including people with disabilities, low-income individuals, and women¹³, and represent an area of intersectional marginalisation that may benefit from an interdisciplinary perspective. One potential measure to reduce transport barriers to healthcare is reimbursement for transport costs associated with medical appointments. This approach has been used in the context of other medical conditions and has been shown to improve health outcomes in older patients¹⁴. It is clear from our results that public transport is not seen as a feasible option for accessing medical care by the majority of those attending the service despite cost-free access to public transport in Ireland from the age of 66. In designing services to meet the transport needs of older people, the preferred transportation mode of the users must be considered, as individualized transport options were shown to be more effective with older patients¹⁴. The potential impact of a dedicated transport scheme for geriatric populations in Ireland is yet to be fully explored. A Manchester-based study asking older people their perspective on barriers and potential solutions to their transport challenges found that there was a constant tension between older people portraying themselves and being seen as frail and needy and as resourceful, proactive, and engaged. This makes the transport offering difficult to achieve, schemes aimed at plugging deficits are seen as inappropriately patronising, yet schemes not aimed at older people can make them feel misunderstood or ignored¹⁵. Potential solutions to transport barriers in accessing healthcare have been researched widely¹⁶ and include reimbursed taxi and rideshare services for attending healthcare appointments. A study examining rideshare usage amongst older people in the USA found that the services were widely utilised in accessing healthcare¹⁷, but that challenges to their utilisation included personal comfort and technological barriers. Further

research into the practicality, cost effectiveness and patient outcome benefits of a scheme of private reimbursed transport in an Irish context should be considered in the future.

Limitations include that our study was conducted over a limited time period, 3 weeks, and had a small sample size overall; further study in this area may benefit from a larger cohort size, and more detailed data gathering on patient demographics to allow broader comparison. Furthermore, our study only included those patients who were able to attend clinic in-person, excluding those appointments done over the phone, and domiciliary visits by staff. This implies a baseline level of personal mobility and access to transport; in turn our dataset may not be fully reflective of those who are under the clinics care, particularly those impacted most by transport barriers. Avenues for further study include an assessment of the rates of cancellation and of failure to attend the clinic, and their contributing factors. Furthermore, while our study assessed the rate of patient accompaniment while attending appointments, we did not investigate the qualitative effects of this. Future work may do well to assess the benefits and potential harms of this; for example, the provision of a collateral history and understanding of the patient's wider context. The tension between these possible advantages and the issues of patient confidentiality, autonomy, and dignity is ripe for further exploration.

Overcoming this transport barrier represents a potential area for further research and investment to maintain the dignity and independence of older people in a healthcare setting, and equitable service provision.

Declarations of Conflicts of Interest:

None declared.

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