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## PARTICIPATION IN URBAN LIFE AND OBSTACLES FOR MOBILITY OF THE ELDERLY IN ŁÓDŹ

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**5** ABSTRACT: The article analyzes participation of senior citizens in urban life of Łódź in the context of spending their free time. The paper is also aimed at revealing obstacles for their mobility within the city. It occurred that the elderly want to participate more in urban life, especially because of their strong desire to meet other people. However, there are still many barriers, mostly relating to public transport and road infrastructure, that make such participation difficult. Also many deficiencies may be found in seniors' residential environment as well as in public green areas.

KEYWORDS: elderly, urban life, mobility, obstacles, Łódź.

### PARTYCYPACJA W ŻYCIU MIASTA I PRZESZKODY DLA MOBILNOŚCI OSÓB STARSZYCH W ŁODZI

ZARYS TREŚCI: W artykule podjęto się zbadania uczestnictwa seniorów w życiu miejskim Łodzi w kontekście spędzania przez nich czasu wolnego. Jego celem było również ukazanie przeszkód utrudniających starszym osobom poruszanie się w obrębie miasta. Badanie potwierdziło, że seniorzy pragną głębszego uczestnictwa w życiu miejskim, szczególnie ze względu na silne pragnienie spotykania innych ludzi. Nie sprzyja temu jednak istnienie wielu barier związanych z transportem publicznym oraz infrastrukturą drogową. Szereg niedostatków zgłoszono również w odniesieniu do otoczenia miejsc zamieszkania seniorów oraz terenów zieleni publicznej.

SŁOWA KLUCZOWE: osoby starsze, życie miasta, mobilność, przeszkody, Łódź.

## 5.1. Introduction

Seniors and problems they experience in their lives are gaining more and more interest from researchers as well as practitioners. This refers particularly to more developed countries whose societies, especially in urban areas, experience fast progressing ageing (*Ageing in Cities...* 2015; *World Population Ageing* 2015).

Due to natural physiological processes part of the elderly cannot tackle ordinary activities as easily as before. The urban environment, which previously posed no problems for some of them, might eventually become challenging or even hostile. The reaction to such circumstances could be an impaired participation in urban life. In the time of the decline in the fertility rate and progressing transformation of family relations, such a situation prompts some seniors to lead a solitary and sedentary life, contributing therefore to further deterioration in its quality. Some research (Rowiński, Dąbrowski 2012; Czekanowski, Załęcki 2015 etc.) shows that an increasing number of the elderly prevents such a situation by performing various activities, also within the public space of the city. Nevertheless, progressing deterioration of health and loss of strength do remain a serious factor hampering active life and participation in urban life. As for other reasons which limit possible urban activities, such factors as imperfect urban design (pavements, street furniture etc.) and land use (density and land-use mix), difficulties in navigating around the city, individual disabilities, fear of becoming a victim of a crime and digital exclusion of the elderly are mentioned (Day 2008; Beard & Petitot 2010; Andersson 2011; Rosso et al. 2011; Kaczmarczyk 2014; Zrałek 2014 and others). Moreover, negative phenomena affecting community attachment and belonging might also contribute to reducing the quality of life of senior dwellers (Phillipson 2007).

The aforementioned negative phenomena relate largely to Łódź, in which ageing processes belong to the most advanced in comparison to other Polish cities. This results from both a low fertility rate as well as its unattractiveness for migration (Szukalski 2010), which is determined by various factors, including the quality of urban environment. Those circumstances make Łódź an interesting and important field of research on how the elderly manage their existence in the urban environment, especially in the context of participating in urban life.

## 5.2. Objectives, materials and methods

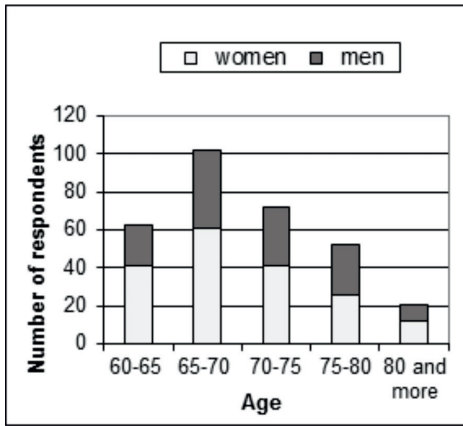
The article is primarily aimed at examining seniors' actual and desired participation in the urban life of Łódź in the context of spending their free time. Another objective is to reveal ways in which the elderly perceive urban environment with regard to their mobility. Particular attention is paid to the types and location of major obstacles that may adversely affect moving around Łódź and therefore hamper participating in urban life. The obstacles not only included tangible objects, but also 'soft' factors, such as access to information or sense of security.

The research was based on a semi-structured interview conducted in the summer and autumn 2016 with inhabitants of Łódź aged at least 60. The survey was addressed to the group of 312 people, which constitutes less than 0.2% of all senior citizens in the city (according to Statistical Office in Łódź). The respondents were chosen from those moving around public spaces: market places, fairs, parks and streets in each of 5 urban districts (mostly in Bałuty and Widzew). Due to the number of respondents as well as the selection method, the survey was not representative. Still, because of the fact that it reflected, if imperfectly, the spatial distribution of the city's population and it enabled to gather quite a significant number of opinions, its results might be to some extent useful for local authorities and other actors concerned with the problems of the elderly. Even such a fragmentary diagnosis might contribute to making the city more coherent and friendly for the most senior part of local community.

The interviewees were asked whether they often participate in the urban life of Łódź. The question required some subjective assessment of this fact. If the answer was in the positive, the respondents were encouraged to indicate where their activities usually take place. In other cases the reason for not participating was sought. The remaining questions focused on the willingness to participate more in city life, preferences toward particular activities in this field as well as conditions that could foster increased participation. The elderly were also asked which places in Łódź they avoid and which are worst adjusted to the requirements of senior citizens. In each case justifying the opinion and indicating the location of such places was suggested. The last part of the questionnaire was aimed at revealing the types as well as location of places where problems affecting mobility occur most intensively. Additionally, the respondents were encouraged to indicate the types and location of barriers/obstacles that make moving around the city difficult. A few questions allowed for multiple answers (three maximum), so in some cases total number of answers exceeded 312.

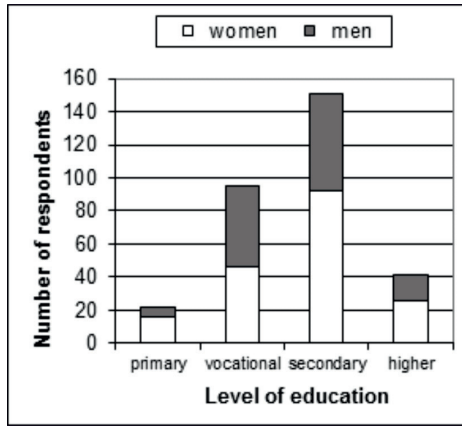
The foregoing dependable variables were confronted with age and sex, level of education, home location and the major ways of travelling within the city (means of transport). Respondents' particulars also included additional declared attributes relating to sociability (willingness to meet other people) and health problems.

The demographic structure of the elderly participating in the research was rather balanced. The prevalence of women in this population equals 17.3 percentage points (Fig. 1). The majority of people were aged 65–70 (32.7%) followed by 70–75 (23.1%), 60–65 (20.2%), and 75–80 (16.7%) age groups whereas the oldest ones aged 80 and more. Well educated people prevailed among the respondents. Almost half of them graduated from colleges, 13.1% were university graduates, whereas 30.4% and 7.1% completed vocational and primary schools, respectively (Fig. 2).



**Figure 1.** Respondents according to sex and age

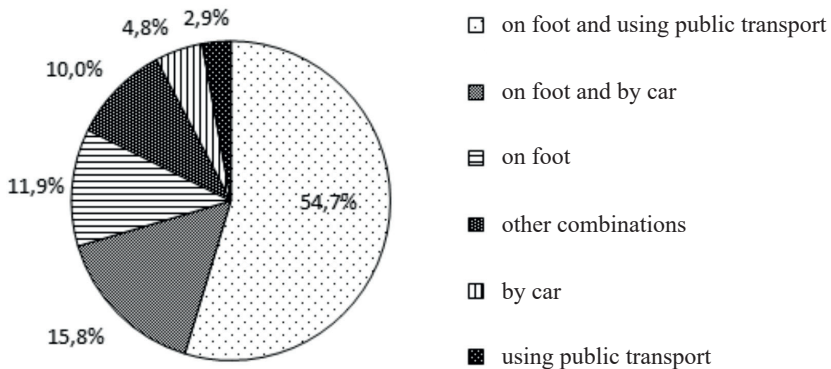
Source: own elaboration.



**Figure 2.** Respondents according to age and level of education

Source: own elaboration.

As for mobility patterns, the majority of respondents (83.1%) claimed that they often move around the city on foot (Fig. 3). The second most popular mode of transport was public transport (63.1%). Other popular means of transport include the car and the bike.

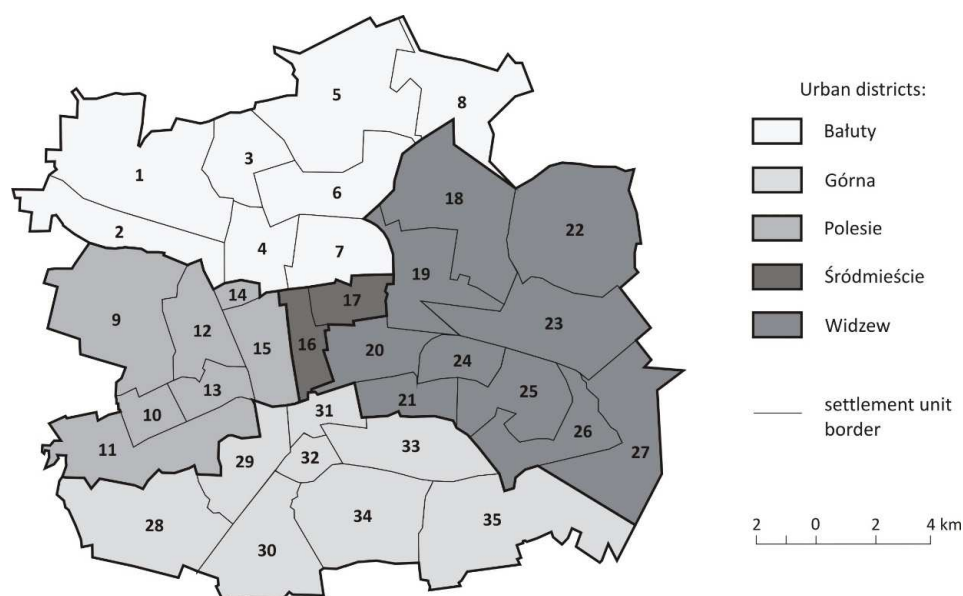


**Figure 3.** Respondents according to their usual forms of moving around the city

Source: own elaboration.

The study of respondents’ opinions was supplemented with cartographic and statistical analyses. The frequency of each variables was measured, cross tables were built and  $\chi^2$  independence testing was performed. If the theoretical numerical amount proved to be too high for method’s limitations, the values of variables that exceeded the required limit of 20% (Nawojczyk 2010) were aggregated.

This referred mostly to age and education, so these two attributes were also analysed according to two intervals, namely younger (up to 70 years of age) and older (70 and more) senior citizens, and characterised by lower (basic and vocational) and higher level of education (college and university), respectively. If zero hypothesis that suggested lack of correlation between variables was not rejected (for significance level  $p = 0,001$ ), Cramer V measure was calculated in order to assess the strength of association. In addition, to illustrate spatial patterns of older people's perception, the article was supplemented with cartograms. The basic territorial unit for all cartographic presentations was a settlement unit according to the official territorial division of Łódź (Fig. 4).



1 - Bałuty Zachodnie, 2 - Teofilów-Wielkopolska, 3 - Radogoszcz, 4 - Bałuty Centrum, 5 - Łagiewniki, 6 - Julianów-Marysin-Rogi, 7 - Bałuty-Doły, 8 - Wzniesień Łódzkich, 9 - Złotno, 10 - Retkinia Zachód-Smulsko, 11 - Lubinek-Pienista, 12 - Zdrowie-Mania-Montwiłła-Mireckiego, 13 - Karolew-Retkinia Wschód, 14 - Koziny, 15 - Stare Polesie, 16 - Katedralna, 17 - Śródmieście Wschód, 18 - Dolina Łódki, 19 - Stoki, 20 - Stary Widzew, 21 - Zarzew, 22 - Nowosolna, 23 - Mileszki, 24 - Widzew Wschód, 25 - Olechów Janów, 26 - Osiedle Numer 33, 27 - Andrzejów, 28 - Nad Nerem, 29 - Rokicie, 30 - Ruda, 31 - Górniak, 32 - Piastów-Kurak, 33 - Chojny-Dąbrowa, 34 - Chojny, 35 - Wiskitno

**Figure 4.** Contemporary territorial division of Łódź

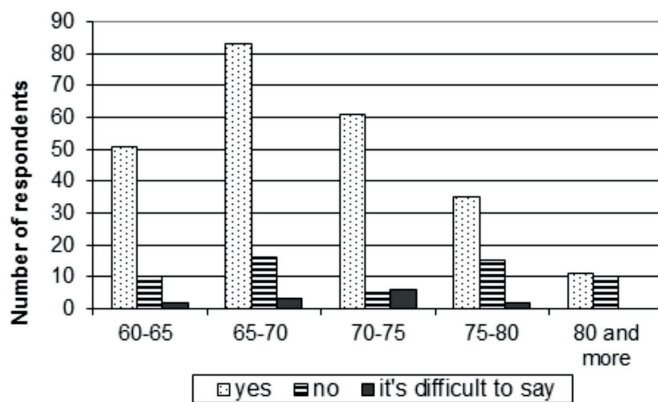
Source: elaboration based on *Jednostki pomocnicze...*

### 5.3. The elderly and their participation in urban life

Numerous studies focus nowadays on the positive role of various activities, either physical or social ones, for different aspects of elderly health and well-being (Glass et al. 1999; DiPietro 2001; Garatachea et al. 2009; Ćwirlej-Sozańska 2014 etc.). Therefore it might seem very positive that more than  $\frac{3}{4}$  of all elderly

who participated in the survey declared that they often spent time outdoors in various places in Łódź. However, only moderate optimism is suggested in evaluating those results because of the imperfect method of respondents' selection.

The survey revealed that there was no correlation between subjective frequency of outdoor activities and respondents' sex, their education level or mobility patterns, which was rather in line with expectations. What might come as a bit of surprise, though, is the lack of statistically significant correlation in reference to age. It seems that this could be associated with the lack of free time. In the early stages of retirement many people remain, formally or informally, professionally active so they might not have much free time. This was indeed expressed by the interviewees, either in relation to professional jobs or babysitting their grandchildren. The survey showed that the frequency of participation in urban life is first average (between ages of 60 and 65), then it increases only to drop systematically after 70 years of age. This pattern strongly reflects the age structure of the respondents (Fig. 5).



**Figure 5.** Answers to the question „Do you often participate in urban life of Łódź?” according to respondents' age (N = 310)

Source: own elaboration.

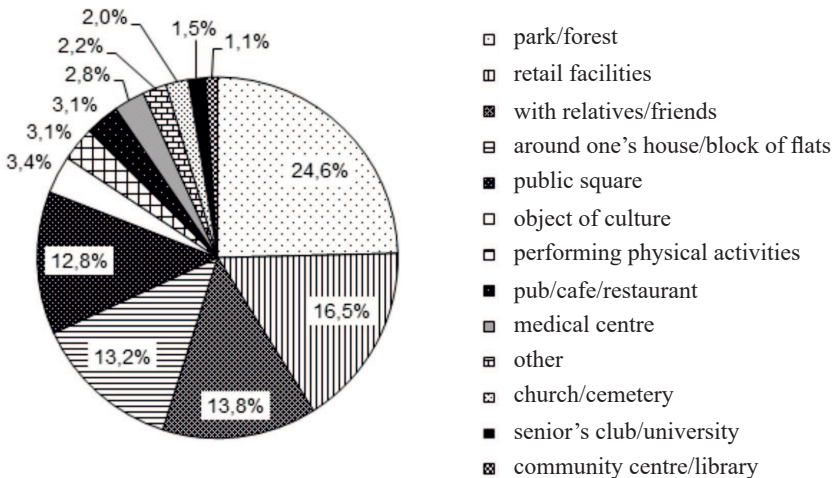
However, if the analysis was limited only to those who did not declare spending much time outside, a relation of average strength was found (N = 51;  $\chi^2 = 16.14$ ;  $df = 4$  and  $V = 0.56$ ). Similar interdependence was revealed when answers to the first question were confronted with spontaneous declarations of having health problems ( $\chi^2 = 61.17$ ;  $df = 2$ ). In the whole analysed population this factor hampers active use of urban space to a moderate extent ( $V = 0.43$ ).

Beside suffering from lack of strength and health problems (43.1%), the elderly who claimed that they fail to participate in urban life on a regular basis explained it with the lack of such a need (17.7%), not having any place to go (15.7%) or time for this because of professional or family responsibilities (13.7%).

Despite the fact that the majority of the surveyed seniors already declared frequent participation in city life, over half of all respondents wished to increase their participation levels. Women dominated slightly in this group (61.5%), however, this prevalence was not significant statistically. On the other hand, there was a clear relation between age and willingness for more intensive participation. It was weak and less significant, though ( $\chi^2 = 8.06$ ;  $df = 2$ ;  $p = 0,025$ ), which shows that as time passes by and possibilities for participation are more and more limited (mostly due to health reasons), the willingness to join urban life does not fade in the equal proportion.

The role of age proved to be of greater importance in relation to reasoning a negative response to the question „Would you like to participate more in urban life of Łódź”? For the group of 138 people  $\chi^2 = 20.16$  ( $df = 4$ ) whereas Cramer's  $V = 0.38$ . Apart from health/age reasons (30.2%), the second most frequent answer to this question was lack of time (28.8%). Eventually, almost  $\frac{1}{4}$  of the respondents declared lack of interest or willingness to do so.

The surveyed senior citizens prefer spending their free time in public spaces that abound in greenery. Municipal parks and Łagiewnicki forest, especially the Arturówek recreational area located within it, were the most frequently indicated answers by the elderly that participated in the interview (Fig. 6).



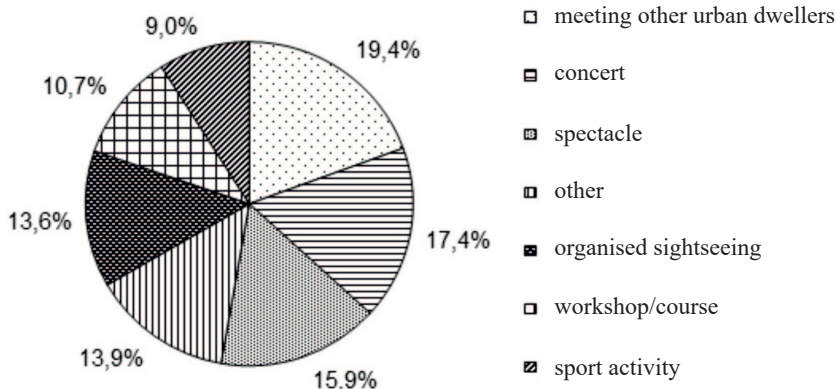
**Figure 6.** Places in Łódź preferred by the surveyed elderly for spending their free time (N = 650)

Source: own elaboration.

Retail facilities were listed as the second most popular place for spending time outside home. Those were mostly market places, but shopping centres were also mentioned. However, the latter were preferred rather by younger seniors who usually admitted visiting the Manufaktura shopping centre located centrally.

As for other sites, almost the same number of the elderly indicated homes of their relatives or friends, gardens owned by them or surroundings of blocks of flats/tenement houses they live in as well as public squares in Łódź. The respondents rarely declared visiting cultural facilities or places organised specially for the elderly, such as senior clubs or Third Age universities, although there are several such facilities in the city. Another meaningful observation was that the elderly perceive visiting medical centres as a form of leisure. It is also interesting to observe that although the question about places for spending free time allowed to indicate a few types of places, the majority chose only two.

The desire for more intensive engagement in urban life could be attributed to all groups of respondents, regardless of their age, sex or educational background. There was a slight prevalence of intellectual activities in which seniors wanted to participate more (Fig. 7). However, quite a considerable number of older urban dwellers declared willingness to take part in events that involve physical effort, such as sport activities or organised sightseeing. However, in this group there was no-one above 80 years old of age. The oldest seniors preferred less exhausting activities such as meeting other urban dwellers, going to concerts, performances etc.



**Figure 7.** Urban events in which the respondents would like to participate more (N = 345)

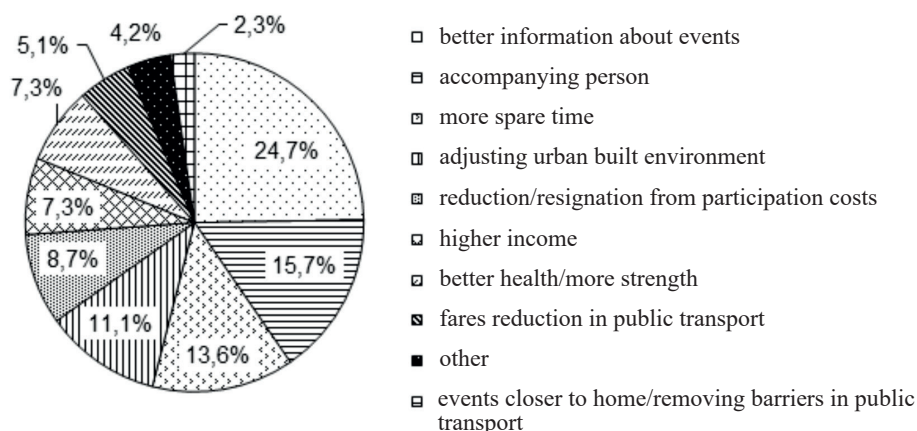
Source: own elaboration.

Generally, the respondents expressed their great need for meeting other people. This included typical as well as more unusual forms of meetings, such as collective reading (poetry in particular), card games or picnics. The question about events that seniors wished to attend more also revealed a significant number of responses pronounced in a way that made them difficult to classify to any of the above mentioned categories. The elderly pointed out the need to establish more facilities and organising more activities aimed specifically and solely at them.



That included old people's homes, cafes, various contests, exchange of books and discotheques. Although it was not expressed directly, those ideas were also aimed at meeting other people.

The issue that naturally follows the assessment of willingness to participate more in urban life consists in discovering conditions for turning it into action. And so the elderly were asked to indicate factors that could encourage them to do so. As this question offered possibilities of giving the maximum of three answers, there were 574 responses in total. Five factors proved to be fundamental for the surveyed group (Fig. 8), of which four could be influenced by the local authorities and other stakeholders involved. Those included better information (easy to reach and clear for the elderly) about what is happening in Łódź, the company of other people, adjusting the urban environment to seniors' needs as well as the financial factor. The only thing that depends mostly on the elderly was the amount of their free time which results from their necessity to work but also from the ability to organise one's activities during the day.



**Figure 8.** Factors which could encourage the elderly to participate more in urban life of Łódź (N = 574)

Source: own elaboration.

In the case of „other” responses, the elderly mentioned factors such as a possibility of renting a room for meetings, locating events in calm places, having greater influence as a citizen on what is offered for urban dwellers.

#### 5.4. Other factors affecting mobility of the elderly

To reveal more obstacles that discourage older people from moving around the city, a set of additional directly barrier-oriented questions was prepared. The first query referred to places in Łódź which are perceived as the worst adjusted

to the needs of the elderly. In terms of type, areas/objects related to transport prevailed (31.7% for road infrastructure and 21.2% for public transport) in 208 answers in total. The majority of senior citizens criticised uneven pavements and high curbs, as well as roads which are difficult to cross due to road works, lack of pedestrian crossings or too quick pace of traffic lights change. Taking the frequency of particular statements, the last two factors seem to be vital obstacles for the elderly. In the case of public transport, except for occasional criticism on timetables or the condition of stations and stops, the elderly complained very much on too steep entrances to trams and buses.

Generally, the difference in levels, together with the lack of ramps and elevators proved to be a huge inconvenience for all groups of respondents. Not only did this problem refer to transport infrastructure and vehicles, but also to public utility buildings (11.5%) which, despite many investments in this field, still need adjustments for people with limited mobility.

The third biggest group of problematic places (13.9%) comprises respondents' places of residence and areas that surround them. The elements that were subject to criticism include lack or insufficient number of benches, shady places, greenery and other facilities enabling good rest in the neighbourhood, lack of or unreliable elevators (in tenement houses and block of flats), uneven pavements which increase the risk of falling as well as temporary obstacles such as roadworks. Many respondents emphasised the fact that they become tired very quickly and the adjustments mentioned above are therefore indispensable. They also criticised the architects of particular settlement units for not anticipating such problems for the elderly, referring mainly to areas which were developed in the period of centrally planned economy.

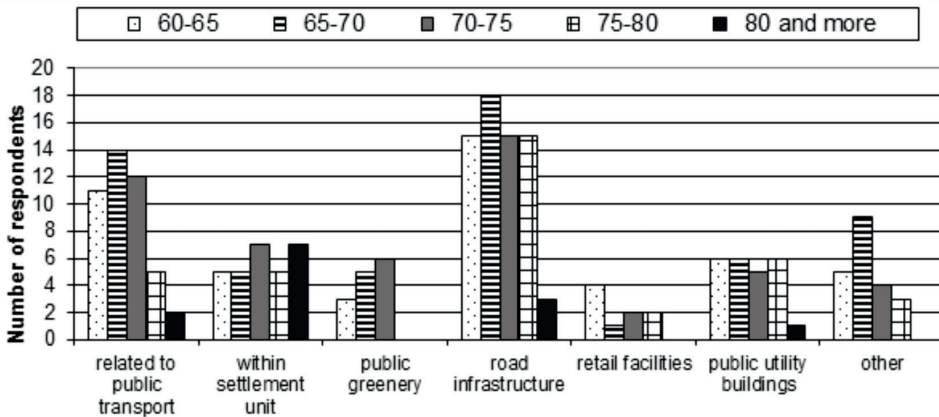
Places for rest and relaxation located within post-socialist settlement units were mentioned also in reference to public green areas (7.2%). One crucial difference, however, is very strong criticism concerning shortage of public toilets. The elderly claimed that the scarcity of those facilities is a serious impediment that discourages them from moving around the city.

Quite predictable answers were those identifying problems within retail facilities (4.3%), which mainly meant big shopping centres. Those places are perceived as too loud and crowded, and their another shortcoming is that some senior citizens are afraid of becoming a victim of a crime. Moreover, a few respondents, especially those using wheelchairs, complained about too narrow entrances and space between stillages in some retail facilities as this disadvantage makes shopping disheartening.

Eventually, it is interesting to see that not all respondents understood the least adjusted places in the context of physical environment features. There were 10.1% people who complained about too long queues in medical centres and, less often, public agencies.

In general, the major reason why the elderly indicated the above mentioned places was a physical barrier that limited their mobility. It was mentioned by almost 52% out of 193 people who cared to express their opinion on this matter. The second most important problem refers to the organisation of road traffic (roads as barriers difficult to be crossed as well) and the lack of benches and shade (9.8%) and well as sanitary facilities in the public space (7.3%).

Opinions on the least adjusted places revealed no statistically significant relation with age, sex, educational background or prevailing form of mobility. However, it could be noticed that the oldest and therefore probably the most fragile respondents complained mostly about surroundings of their place of living as well as about road infrastructure (Fig. 9).



**Figure 9.** Places in Łódź which are considered unadjusted to needs of seniors according to respondents' age (N = 207)

Source: own elaboration.

It is vital for any stakeholder that tackles problems of the elderly in the city to learn where such negative phenomena occur. Over half of the respondents that participated in the survey (65.3%) pointed to locally existing shortcomings in the urban environment, mostly within the settlement unit which they inhabit (Fig. 10). Almost  $\frac{1}{4}$  of the examined population indicated that problems existed more or less in the whole city, whereas the rest of seniors (10.9%) indicated the whole districts.

According to the results of the survey, areas criticised for inappropriate adjustment to seniors' needs prevail in the central part of the city, which is the oldest and has the densest and most degraded built environment. Furthermore, large settlement units from the period of centrally planned economy seem to have many deficiencies as well. This refers in particular to Teofilów, Widzew, Chojny-Dąbrowa and the eastern part of the Retkinia settlement unit. The city centre is perceived as chaotic, overcrowded, with a lot of vehicles and therefore difficult



**Figure 10.** Settlement units in Łódź perceived by the respondents as unadjusted to the requirements of the elderly

Source: own elaboration.

for moving around. Later developed areas encircling the downtown were also criticised for heavy traffic. However, this concerned wide transit streets, such as Aleksandrowska Street, Jana Pawła II Avenue, Zgierska Street, Przybyszewskiego Street, Śmigłego-Rydza Street, Dąbrowskiego Street and Pabianicka Street where excessive pace of traffic light change or even lack of traffic lights proved to be problematic. Those were also areas where land development around blocks of flats was disapproved of for being unfriendly for the elderly. One characteristic feature of the spatial pattern of unadjustedness of the built environment for the elderly is lack of criticism related to the north-eastern part of the city (if opinions about the whole city are not taken into consideration). Those areas abound more in settlements of single-family houses, recreational space and agricultural land, which perhaps, apart from the residential background of respondents, have influenced such perception.

The question about unadjusted places was supplemented with another question which focused strictly on barriers/obstacles that hamper mobility of the elderly. In the group of 302 persons that agreed to speak about it, almost  $\frac{3}{4}$  understood such obstacles as physical barriers, mainly in the form of uneven surfaces and stairs. The organization of transport, fear of becoming a crime victim and lack of places for resting were indicated by 8.9%, 7.3% and 6.3%, respectively. Answers

to this question proved to be slightly related to frequent use of public transport ( $\chi^2 = 25.7$ ;  $df = 5$ ,  $V$  Cramer's = 0.28).

Creating a map illustrating the location of obstacles was possible for 281 answers, which referred to a specific place in the city (Fig. 11). Spatial pattern of perceiving this phenomena is quite similar to the one presenting unadjusted places. There were only slight differences in eastern and western settlement units located peripherally. It was also observed that there is a clear relation to respondents' place of residence, mostly in case of the highly criticised Teofilów-Wielkopolska settlement unit located in the north-western part of the city.



**Figure 11.** Location of barriers which make moving around Łódź difficult for the respondents according to settlement units

Source: own elaboration.

This time, however, the city centre was criticised for the scarcity of parking lots and general difficulty in accessing it, also by public transport. In the case of post-socialist settlement units the condition of transport infrastructure, including pavements, was highly disapproved of. Many indications, mostly with regard to streets<sup>1</sup> (both transit and local ones), were not justified at all. And again, among

<sup>1</sup> Those streets were: Aleksandrowska, Anczyca, Batorego, Brzozowa, Chryzantem, Dąbrowskiego, Deotymy, Dereniowa, Folwarczna, Franciszkańska, Judyma, Julianowska, Kolumny, Krzemieniecka, Łomżyńska, Marynarska, Morenowa, Niska, Ozorkowska, Pabianicka, Parcelacyjna, Piłsudskiego, Piekarska, Piotrkowska, Plantowa, Pograniczna,

barriers that make moving around the city difficult a lot of criticism was addressed at public means of transport with too steep entrances. The elderly also complained about road works although without giving their precise location.

The last question in the second part of the questionnaire was aimed at revealing places in the city which are avoided by the elderly. It was supposed to identify the type and location of those places as well as to reveal why they are avoided. It occurred that for the majority of respondents (56.7%) there is no particular area in the city that is bypassed by them. The rest of seniors answered this question positively and ambivalently (it is difficult to say) in almost identical proportions, regardless of any socio-demographic features relating to respondents' particulars.

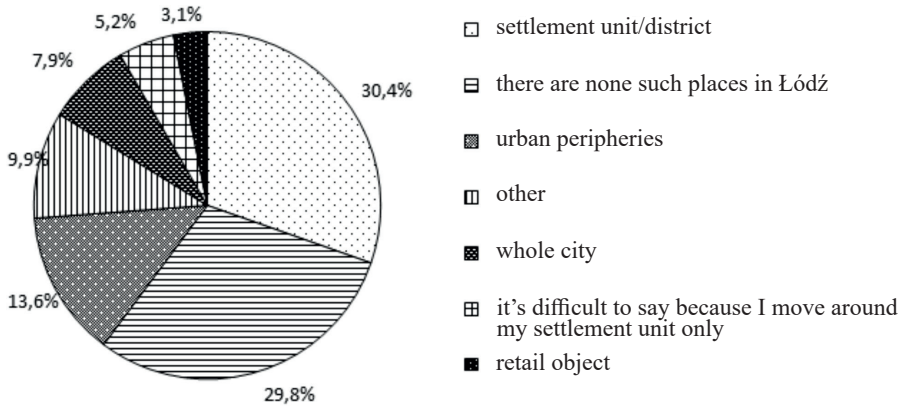
Among avoided places there were mostly streets (Wschodnia, Rewolucji 1905 r., Włókiennicza, Niska, Limanowskiego, Zarzevska, Przędzalniana, Dąbrowskiego, Wróblewskiego and Rzgowska streets) which were followed by huge retail facilities, „dark” and dangerous places (Helenów and Old Town parks), as well as the whole settlement units of Bałuty and Teofilów. The reason for avoiding those areas in the majority of cases was the feeling of danger, which was articulated particularly by younger women who often use public transport and did not declare the desire to meet other people. That factor was followed by reasons such as crowd and noise, and, finally, impediments for mobility. Those answers were attributed almost exclusively to the elderly who declared that they frequent move around the city on foot.

The feeling of danger in the majority of cases resulted from having heard that an undefined crime was committed there („I heard that people are attacked there”, „It's famous for social pathology”). They claimed that bypassing such places, especially during late hours, is a good way to decrease the risk of being attacked. Such type of behaviour was also reported by S. Mordwa (2015) who examined seniors' victimisation risk and defensive actions in Łódź. What is also worth emphasizing in relation to places avoided by the elderly is that Piotrkowska street – the main representative public space in Łódź, was often mentioned as such an object. This was reasoned by its excessive livability. Some respondents also claimed that they feel lost in some places, especially in huge residential units where blocks of flats prevail.

Finally, seniors were asked about places in the city which are the least accessible for them. The majority of 191 people who shared their perception in this matter indicated settlement units or even the whole urban districts (Fig. 12). Those were mostly people who travel generally on foot and by public transport.

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Proletariacka, Przędzalniana, Przybyszewskiego, Pstrągowa, Ptasia, Radwańska, Rojna, Rydla, Rydzowa, Rzgowska, Sarnia, Senatorska, Staffa, Starosikawska, Staszica, Strycharska, Szczecińska, Szpitalna, Świtezianki, św. Teresy, Tatrzańska, Truskawkowa, Wici, Winna, Włókiennicza, Wojska Polskiego, Wschodnia, Zarzevska, Zbiorcza, Zgierska and 1-go Maja.

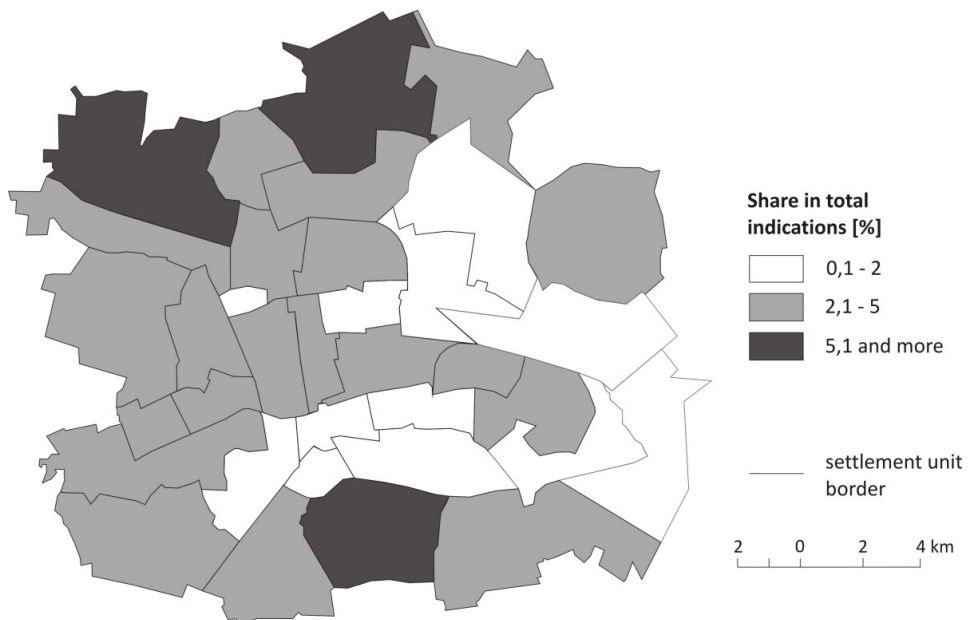


**Figure 12.** Types of places in Łódź perceived by the respondents as hardly accessible (N = 191)

Source: own elaboration.

Almost  $\frac{1}{3}$  of the surveyed population, mostly up to 70 years old, with the slight prevalence of men who often move around the city by car and on bike, claimed that there is no such a place in the city. Surprisingly, the city's peripheries were surprisingly the third most frequent answer, followed by the remarks which were difficult to classify (medical centres, public utility buildings, municipal ZOO). Few people declared that the whole city was hardly accessible, however, those were not only the oldest persons. In general, answers to this question showed weak relation to declarative health problems ( $\chi^2 = 25.3$ ;  $df = 6$ , V Cramer's = 0.36).

Contrary to previous analyses of spatial patterns, this time each settlement unit in Łódź was mentioned by at least one respondent. The hardest areas to be accessed, according to 279 indications in total, were three peripherally located units: the Łagiewnicki forest and Bałuty Zachodnie in the north as well as Chojny in the south (Fig. 13). The first one is occupied mostly by a vast wood complex, whereas the remaining units abound in multi-family housing estates and industrial areas. What is particularly interesting is that the fourth most frequently indicated area was the downtown. The respondents living in the encircling zone developed in the socialist period claimed that it is difficult to get to the centre, mostly due to insufficient number of public transport connections. The hindered movement between those areas has been noticed also by I. Pielesiak (2016) and S. Wiśniewski (2016). However, they were explained rather in the context of the built environment specificity (road and railway infrastructural barriers) which forces people to take roundabout ways instead of straight ones.



**Figure 13.** Settlement units in Łódź with places perceived by the respondents as hardly accessible

Source: own elaboration.

Generally, it was observed that the Łagiewnicki forest is perceived as distant regardless of the place of residence. The hardest accessible retail facilities included only one place in the city, namely the Port Łódź shopping centre with the IKEA store, which is located peripherally to the Nad Nerem south-west settlement unit. In other cases it could be noticed that the elderly from one huge settlement unit with the prevalence of post-socialist multi-family houses indicated other such units on the „opposite side” of the city, which, however, did not always mean the most remote location in reference to physical distance. This observation could be also confirmed if the reasons for difficult accessibility is concerned. For exactly half of the respondents travel obstacles proved to be more discouraging than physical distance (fundamental for merely over  $\frac{1}{3}$ ). Almost 10% justified their opinions with lack of knowledge about indicated places or the way they can be accessed.

## 5.5. Conclusions

The majority of the interviewed elderly declared that they spend time outside on a regular basis, which is in accordance with the recommendations of entities tackling senior citizen’s health. As for seniors that choose sedentary lifestyle it



seems that it is mostly individual obstacles that dishearten them from performing outdoor activities. However, some people that claimed that „they had nowhere to go” might be given more information about the possibilities of spending free time in the city, both with regard to the content, a noticeable form and effective ways of announcing it. In general, seniors strongly expressed the need for meeting other urban dwellers, which shows that some kind of external, more or less formal, intervention is required.

The research showed that despite many efforts aimed at removing physical barriers for people with limited mobility, including the elderly, still a lot has to be done in this field. The most urgent needs include adjusting either public transport stops or the vehicles so that inconvenient difference in their levels no longer poses problems to tram or bus users. As senior citizens claim to rely primarily on those means of transport, contemporary unadjustedness seriously contributes to seniors' exclusion from urban life.

As for other problems in the field of transport infrastructure, installation of new traffic lights as well as adjusting their pace seem to be worth considering as well. As in the case of steep entrances to public means of transport, the road infrastructure itself, especially multi-lane routes, represent a barrier for all groups of urban dwellers, not only for those with impaired mobility. Such observations are valid also for other Polish cities (Bujacz et al. 2012).

And finally, another vital deficiency that ought to be tackled is lack of basic facilities such as public toilets, especially in places that are designed for recreation. This refers to parks in particular, although they have already undergone some improvements. Besides that, many complaints address the imperfect design of the space around post-socialist multi-family houses. Their greatest deficiency is scarcity of shady places with enough supply of sitting facilities. This is of great importance especially for the oldest and least mobile seniors.

Some of the above-mentioned problems could be relatively easy to handle by appropriate stakeholders (associations that organise events for city dwellers, local authorities supervising public greenery, authorities of housing cooperatives etc.). Those entities have the power to improve promotion of different forms of activity within the urban space as well as adjust recreational areas to the requirements of the elderly at reasonable costs and organisational effort. The biggest challenge remains improvement in public transport because it requires enormous investment costs as well as long-lasting complex procedures.

### **Acknowledgement**

This publication was supported with a grant for young scientists and PhD students at the University of Łódź.

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*Article history*

Received 26 April 2017

Accepted in revised form 20 July 2017