Accessibility of urban and rural environment of the Kola North of Russia (Murmansk region) for disabled people

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Abstract. In today's Russian society, people with disabilities cannot successfully join society because of the existing social barriers in various spheres of activity. As a result, they have limited access to social resources and a higher social status. In this regard, ensuring the independent life of disabled people is an urgent task for Russian society. The present research aims at identifying the level of accessibility of the social environment in the North of Russia for people with disabilities. Research methods are represented with general scientific methods of cognition, analysis of scientific literature, regulatory documents, data of secondary sociological research, and results of the method of observation conducted by the authors in 2018-2019. The analysis showed that today there are social barriers in all spheres of activity, and the level of infrastructure's accessibility in rural settlements is much worse than in urban environment. The obtained results can be used in urban planning and social practice with the aim to transform the social environment and ensure its accessibility for people with disabilities.

1. Introduction

Ensuring the independent life of people with disabilities is important due to a number of factors with the key one being the availability of the social environment.

Accessible social environment for people with disabilities is a set of social, material, psychological, information and other conditions that meet the needs of these people and allow having an independent lifestyle.

The level of accessibility of social environments for people with disabilities is an important criterion for the development of public institutions and civil society. The extent to which people with disabilities are given the opportunity to participate in public processes is an indicator for judging the observance of legally enshrined human rights, as well as the dominant social values.

Studies conducted in Russia and abroad indicate the relevance of the problem of ensuring the independent life of persons with disabilities.

According to researchers, disabled people in Croatia face such obstacles as inaccessible transport, inadequate adaptation of buildings, restrooms, elevators for disabled people, the poor financial situation [1]; in Greece, Spain and Lithuania, there are cultural and institutional barriers limiting access to inclusive education for young people [2]. According to the results of the study by J. Park and S. Chowdhury, in New Zealand the main obstacles for citizens with physical disabilities in the urban environment are associated with terminals, stops, services and walkways. The main obstacles for
visually impaired citizens include poor presentation of information and obstacles on walkways [3, p. 361].

American scientists point to adverse socio-psychological environment as a serious obstacle to the independent life of disabled people that contributes to their labeling and discrimination[4].

According to the study by S.G. Terskova, E.S. Gavriloa and E.E. Yurkova, in Russia, most services and facilities for people with disabilities are not accessible. In Russian cities people with disabilities face the following difficulties: high street curbs (61.9%); lack of ramps (40.2%); unequipped walkways (28.9%), etc.[5].

In addition to problems with the accessibility of buildings, the researchers also note barriers in various spheres of activity. In particular, today, barriers of the educational environment appear not only in the form of insufficiency of material and technical means and special equipment, but also in the form of absence of necessary tutor support for disabled people, lack of adaptive educational programs and individual approaches to education of disabled people [6, p. 40].

Access to social infrastructure should necessarily allow individuals with persistent health problems for maximum participation in the life of society in the places of residence. In the absence of this access, it is appropriate to talk about discrimination, widespread in the world [7].

Creation of a barrier-free environment for people with disabilities in the Russian Federation became a conscious public and legislative activity only in the late 20th – early 21st centuries. During this period, Russia begins to develop a legal framework for the elimination of social barriers and the realization of the rights and freedoms of people with disabilities.

In 2012, Russia ratified the Convention on the rights of persons with disabilities (adopted by the UN General Assembly on December 13, 2006) and set a course for compliance with international standards with the regard to the population layer under study. Health care, culture, transport and pedestrian infrastructure, information and communication, education, social protection, employment, sports and physical culture have been identified as priority spheres of disabled people's life. These spheres are currently being transformed to ensure accessibility of facilities and services for persons with disabilities.

However, social barriers still remain a significant problem for modern Russian society, impeding the independent life of persons with disabilities in many spheres of life.

Lack of access to many social resources has serious socio-economic consequences not only for people with disabilities, but also for society. First of all, it is high social dependence and low quality of life of disabled people, as well as intolerance, disunity and disintegration of social groups.

There is no doubt that the inaccessible social environment structures and stratifies urban space. As a result of architectural and social barriers, it is possible to easily isolate people with disabilities from certain urban facilities or completely isolate them from society.

According to E.K. Naberushkina, it is possible to allocate the following markers of city space barriers for people with disabilities: a) enclosure: disabled persons are assigned a certain place, including social pharmacies, social shops; b) functional accommodation: the state system places people with disabilities in boarding schools, specialized enterprises, "locks" them in their own apartments as having scarce social capital; c) stratification of urban institutions of consumption, establishing an unspoken hierarchy and social distances by introducing systems of "face control", electronic access, pricing and corporate policies [8, p. 17].

Social environment can be understood as a set of social conditions of human life and objective factors that affect his consciousness and behavior. Having numerous spheres, the social environment acts as a mediating link between the individual and the personality.

On the basis of the presented concepts, we define the social life environment of disabled people as a normal environment, equipped with their special needs, allowing them having an independent lifestyle. Each environment has resources for inclusion, but there may be barriers as well. Accordingly, the inclusive barriers faced by persons with disabilities stem from the resource scarcity of social environments.
2. Results
Examination of social infrastructure with the aim to identify the level of its accessibility for disabled people was carried out under guidance of G.V. Zhigunova in 2018-2019 in the cities of the Murmansk region: Apatity, Kandalaksha, Kola, Monchegorsk, Severomorsk, as well as in rural settlements: Alakurtti, Varzuga, Korzunovo, Lovozero, Pushnoy, Teriberka. The sample is targeted and provides representation of all municipalities in the region.

Speaking in general about the studied region, it can be noted that the Murmansk region is a highly urbanized territory of the Arctic zone of the Russian Federation. As of January 1, 2019, 690 thousand people lived in cities and urban settlements of the region, and only 58.1 thousand people lived in rural areas [9]. As of April 1, 2019, 28,496 disabled people and 2,690 disabled children lived in the Murmansk region [10]. The disability rate is 4.76% – the lowest in the North-Western and Central Federal districts of Russia. The places of residence of these persons are unevenly distributed both in urban and rural settlements [11].

The subject of observation is the possibility of unhindered access to people with disabilities to urban and rural environment. Special attention is paid to facilities for people with muscle-skeleton disorders, wheelchair users and visually impaired people since these categories of people have the greatest difficulties with access to infrastructure. Attention was paid to availability and quality of ramps, railings, call buttons, doors and doorways, space in front of the door; tactile stripes, Braille plates, etc.

Infrastructure objects under study refer to priority (in accordance with the state program "Accessible environment") and non-priority spheres of activity, including institutions of social protection and social services, education and further education, health care, culture, physical culture and sports, transport and communications; shops, supermarkets, shopping malls, banks, service centres, post offices, other institutions (administration buildings, departments, Registrar's office, police, notary offices, industrial buildings, etc.); playgrounds; parks and gardens.

According to the research results, the objects can be divided into 3 groups: accessible, conditionally accessible and inaccessible.

As of April 30, 2019, 571 objects were examined and analyzed, 439 of them are located in urban settlements, and 132 – in rural settlements. In rural settlements, all objects were examined, while in cities – selective examination was carried out.

According to the results, 30.3% of accessible infrastructure objects were identified for persons with disabilities in urban settlements, 14.6% of conditionally accessible, and 55.1% of inaccessible. The major part of the accessible facilities is designed for people with muscle-skeleton disorders and for wheelchair users. Only 6% of the objects are accessible to the visually impaired.

Only 6% of the objects are accessible in rural settlements, 7.6% – are conditionally accessible, and 86.4% – are inaccessible. Only 1% of the objects are accessible to the visually impaired.

List of social infrastructure objects grouped by the spheres of activity depending on the organized accessible environment is presented in Figure 1 (constructed on the basis of index positions).

As can be seen from the constructed indices, attempts to create an accessible social environment have been made in cities in all spheres of activity, while in rural settlements no attempts have been made to create facilities for disabled people in shops, post offices, catering establishments, playgrounds, physical culture and sports organizations (index -1). The level of accessibility of educational, cultural, administrative, credit institutions and various departments in rural settlements is much worse than in urban settlements. Health care is the only sphere in rural settlements characterized by a certain level of buildings' accessibility.
As we can see in Figure 1, no objects in any of the spheres under consideration are fully accessible. Such urban objects as finance and credit institutions (non-priority sphere), social protection institutions (priority sphere) and post offices (non-priority sphere) are more accessible as compared to others. The hypothesis that institutions of the priority spheres are more accessible has not been confirmed.

General index of accessibility (or rather inaccessibility) makes -0.248 for urban settlements, -0.804 for rural settlements, which indicates unsatisfactory conditions of the environment in terms of its accessibility for people with disabilities. However, it should be noted that these conditions are three times worse in rural settlements as compared to urban ones.

The main problems of the region's urban infrastructure include the lack of ramps or non-compliance with the requirements for their quality and installation, insufficient width of doorways, inconvenient doors and door handles, lack of handrails, call buttons, tactile strips and tactile plates, the presence of obstacles on the way from the ramps to the doors or insufficient space for wheelchairs [12].

In rural settlements, the main problems include the lack of ramps and other special equipment for creating an accessible environment for disabled people, the presence of thresholds and inconvenient doors and door handles, the lack of asphalt or paved paths and sidewalks.

A common problem for all settlements is the poor condition of sidewalks and pedestrian crossings, the lack of tactile lanes, exits from curbs, the poor condition of yard areas.

3. Conclusion
Summarizing the results of the observation, we can conclude that in the Murmansk region, social and environmental barriers for people with disabilities exist in all spheres of activity. The social infrastructure of the cities meets the requirements of accessibility for people with disabilities by only a third, very unevenly in different areas. In rural settlements, the situation is ten times worse [13]. All of these confirm the authors' hypothesis.

The lag of villages behind inclusive environmental transformations can be explained by the peripheral location of rural settlements, the priority of urban development in the Murmansk region as a...
highly urbanized region, the lack of regional programs on creating a comfortable social environment in rural areas, insufficient funding, insufficient understanding of the importance of social transformations to ensure an independent life for people with disabilities, etc. All this points to the need of implementing targeted measures on transformation of social infrastructure objects into an accessible environment for disabled people, both in cities and in rural settlements. These transformations will not only enable people with disabilities to exercise their civil rights on an equal basis with healthy citizens, but also improve the level of comfort of the territories for all their residents.

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