

RECREATIONAL AND LEISURE DEVELOPMENT FOR THE ELDERLY IN RESIDENTIAL AREAS IN LUBLIN

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ABSTRACT

Motives: A city is a socio-urban system. In urban development, emphasis is placed on housing needs, which leads to the development of housing estates. Although housing estates are poorly rated in Europe, they are still attractive places to live in Poland. However, they do not always meet the residents' needs. This is especially true of seniors.

Aim: Six housing estates in different districts of Lublin were analyzed. An attempt was made to determine whether recreational and leisure facilities in the examined housing estates are conducive to senior activities, whether they are influenced by the time of construction, and what measures can be implemented to improve the accessibility of these spaces.

Results: In contrast to newly built neighborhoods, older block housing is more abundant in green areas and public spaces that encourage active and passive recreation. Recreational development in housing estates lacks facilities for diverse groups of seniors. Active modernization measures are not being implemented to improve their functioning.

Keywords: seniors, leisure, block housing, development estates, greenery, public spaces

INTRODUCTION

One of the most important services offered by cities is the fulfillment of the housing needs of the population. The urban unit that fulfills this function is residential neighborhoods. It is estimated that they are inhabited by more than half of the urban population (Zaborowski et al., 2009) and this percentage is increasing every year (Bakalarczyk, 2021). Unfortunately, this environment has quite a few disadvantages that their residents have to deal with on a daily basis (Gabryńczyk & Orlińska, 2019).

In Europe and Poland, the construction of settlements intensified, in the post-war years. Efforts were made to create spaces that were comfortable for

their residents. Pedestrian traffic became a priority, inside them, while the possibility of vehicular traffic was eliminated. A green structure was introduced, which often assumed grandiose proportions, along with a recreational structure and elements of small architecture, such as sculptures, which enriched and made neighborhood areas more attractive. By designing according to the principle that man comes first, concepts were introduced that realized his basic needs. Such settlements enjoyed the approval of residents (Wrana & Czapla, 2016). In Poland, after the change of the political system (in the 1990s), there was a transformation of the previous character of settlement units in terms of urban development. It began to be practiced to sell land to developers, who created groups

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of buildings separated by fences, devoid of greenery and recreation areas (Przesmycka & Sosnowska, 2013).

Unlike in Germany, the UK, or France, block housing estates in Poland are not stigmatizing or emptying. At the beginning of the 21st century, 84% of respondents in Poland said that living in a block of apartments does not degrade socially. Housing estates are inhabited by all social strata, and migration is largely the result of the aging of the generation that lived in them in the 1970s–80s and younger residents moving in or renting. Therefore, the focus should be on preserving their key assets and realizing their potential, but also adapting them to the changing needs of residents (Chmielewski & Mirecka, 2001).

One of the global trends that affects all cities in developed countries, including Poland, is the aging of the population (Fabiś et al., 2015), for which most cities are not prepared (Labus, 2014; Szołtysek & Trzpiot, 2019). In the face of these changes, seniors will play a key role in shaping urban life and cities must take measures to adapt to this situation (Labus, 2014). Korzeniak (2011), the source of the success of European cities in the 21st, on this issue, sees an integrated approach. Among other things, it is based on adapting the urban environment for the elderly so that they can remain active and healthy. In addition, it emphasizes public and commercial services, which should function in such a way as to make them more accessible and adaptable to the different levels of fitness of the elderly. In 2007, the WHO launched the Age Friendly Cities project (Tomczyk & Klimczuk, 2016; Magdziak, 2017), which considers as an important feature of cities the presence of public spaces friendly to healthy aging, the presence of green areas in residential areas, which become the closest and most used place of life for seniors (Niezabitowska et al., 2013). Studies show that a condition for staying fit in old age is, among other things, independence, which is provided by one's own apartment, a familiar neighborhood (Magdziak-Grabowska, 2014; Miśnikiewicz, 2017). Measures should be taken to remove architectural, functional-spatial barriers and create incentives for the use of public spaces and green areas. Favor activities for healthy aging and prevention

of diseases of old age, preserving physical and mental fitness (Bakalarczyk, 2021). Research at the level of neuroscience indicates that an aesthetically pleasing environment raises the level of endorphins – the happiness hormone, and the satisfaction of being in a well-appointed space with diverse vegetation, fosters social integration, undertaking activities that promote fitness. It affects the quality of life (Steuden, 2001; Ranzijin, 2002; Kaczmarczyk & Trafiałek, 2007; Trempała, 2011; Tomczyk & Klimczuk, 2016). In order to understand the importance of common spaces, an everyday perspective and a practical approach were adopted. It was assumed that spatial elements in the place where seniors live have a significant impact on initiating, or limiting, their activities. A comparative analysis of leisure and recreational spaces and technical infrastructure located within six neighborhoods built in different periods of Lublin's development was carried out, as well as assessments of the extent to which they fulfill the needs of seniors to spend their free time actively or passively.

MATERIALS AND METHODS

Analyses were made to determine the adaptation of open areas and public spaces of residential areas to the needs of the aging population and the capabilities of senior citizens. The main problem was whether the existing spatial development (spatial layout, communication, elements of small architecture) is adapted for these people. Areas were studied in terms of daily recreation. In addition, the analyses singled out places conducive to social contacts and enabling and encouraging active leisure activities. The settlements selected for the study were ZOR Zachód, Adam Mickiewicz, Błonie, Poręba, Botanik and SBM Oaza, located in different neighborhoods (Table 1). The choice resulted from the urban transformations of the settlements created in different periods of Lublin's development and the changing approach to shaping recreational areas.

Field visits and inventories of recreational forms in the structure of settlements were carried out, along with an assessment of the opportunities for active

Table 1. Summary of permeable and impervious surfaces in the settlements

The name of the estate	Time of construction of residential buildings	Location district	surface the terrain [m ²]	surface buildings [m ²]	surface biologically active [%]
ZOR Zachód	40–50. XX c.	Wieniawa	60,717	14,914	38
A. Mickiewicza	50–70. XX c.	Rury	309,403	52,612	52
Błonie	80. XX c.	Czuby Północne	162,504	24,391	54
Poręba	90. XX c.	Czuby Południowe	458,541	76,405	44
Botanik	2000–2010	Sławin	177,285	31,247	18
SBM Oaza	2010–2020	Węglin Południowy	41,509	13,757	20

Source: own preparation.

and passive leisure activities of their residents. Their number, state of preservation of equipment, aesthetics, presence of greenery, and accessibility for people with dysfunctions were taken into account. This made it possible to determine the nature of the entire recreational and leisure system and its possibilities for use by residents.

RESULTS

The largest areas are in the settlements of Poręba and A. Mickiewicz, but the largest amount of biologically active, open areas is in the settlements of Błonie and A. Mickiewicz, it is more than 50%. The least amount of these areas is found in the newest settlements built after the transformation period. They occupy about 20% (Table 1).

Quantitatively, the largest number of recreational spaces was recorded in the A. Mickiewicz estate, there are as many as 16 well-developed and diversified squares, there are places for exercise and varied greenery (tall trees, clumps of shrubs, flowerbeds with flowering perennials). Considering the size of the settlements, the situation seems to be good in terms of the presence of such spaces also on SBM Oaza and on ZOR Zachód. However, this does not correspond to the actual situation. Such spaces as squares do not exist in the settlements: Poręba, Błonie, Botanik, SBM Oaza. On the other hand, there are more recreational places for young people in these settlements (sports fields, skatepark, ping-pong tables). Places dedicated to children under 10, on the other hand, are found in the youngest estates: SBM Oaza, Botanik, Poręba.

Due to the nature of the largely retired residents, taking care of grandchildren are also in the older settlements in the A. Mickiewicz and ZOR Zachód (Table 2). The quantity does not always indicate the presence of quality spaces for seniors (Table 3).

In ZOR Zachód, squares with benches, and seats in playgrounds that can be used for passive recreation can be considered to meet the expectations of seniors. Highly aesthetic is the green square occurring between the buildings on Puławska 13 and 15 Street. It is distinguished by the presence of three benches with backrests, and an abundance of greenery. The other zones have fewer leisure infrastructure elements and a small amount of greenery. None of the analyzed spaces is adapted to the full realization of the needs of active spending of time of this group of residents. The problem is the small number of benches, most of them without backrests and armrests. There is a shortage of benches near blocks, and along traffic routes, which hinders passive recreation. Much of the pavement is dilapidated. There have been no revitalization or modernization activities concerning public spaces. Replacement of benches has not been reported.

On the A. Mickiewicz estate, the places chosen by seniors are squares, which form a rich network. Most of them are at least partially shaded, rich in vegetation and small architecture. They occur between almost all blocks of flats. In every part of the estate there are well decorated playgrounds, sports fields with benches. In the center of the estate there is a large “rocket square”, recognizable in Lublin, with sidewalk games, a large number of playground equipment (rocket,

Table 2. Diversity of leisure and recreational spaces in Lublin’s settlements

Number of recreational spaces	ZOR Zachód	A. Mickiewicza	Błonie	Poręba	Botanik	SBM Oaza
Playground	8	9	9	23	12	15
Single play equipment	2	4	0	2	0	0
Volleyball court	0	2	1	0	0	0
Volleyball and basketball court	0	2	1	0	0	0
A basketball court	1	1	1	2	0	1
Basketball and football field	0	0	1	0	0	0
Football pitch	1	1	1	5	2	1
Ping-pong table	0	1	4	0	0	0
Stand for board games	0	2	4	0	0	0
Outdoor gym	0	2	4	2	1	1
Fitness track	0	0	1	0	0	0
Skatepark	0	0	1	0	0	0
Sidewalk games and activities	0	2	1	0	0	0
Playground for dogs	0	1	0	0	0	0
Green square	2	0	0	0	0	1
A square with a discount	2	7	0	0	0	0
A square with a paved surface	1	8	0	0	0	0
A square with a fountain	1	1	0	0	0	0
Park/insulating greenery	0	1	0	0	0	0
Sum	18	42	29	34	15	19

Source: own preparation.

Table 3. Quality of leisure and recreational structure elements for seniors

The name of the estate	The condition of the equipment			The condition of the surface			Aesthetics, the presence of greenery			Accessibility for people with disabilities		
	3	2	1	3	2	1	3	2	1	3	2	1
ZOR Zachód			+			+		+			+	
A. Mickiewicza	+			+			+				+	
Błonie			+	+				+				+
Poręba			+	+				+				+
Botanik			+	+						+		+
SBM Oaza			+	+						+		+

Markings: 3 good, 2 average, 1 poor

Source: own preparation.

airplane, ship, car), gym, game tables, fountain, gazebos, very many benches with backrests. In another part there is a slightly smaller playground, with a toboggan hill, a bicycle track, flowerbeds and a rest area with benches to facilitate social interaction among seniors. The estate is characterized by rich greenery, private front gardens, ornamental flowerbeds. Lawns

are mowed less frequently (about 5 times a season), which increases biodiversity and reduces noise. There are feeders, birdhouses, insect hotels. Places for hedgehogs are created. As a result, the animal world is rich, allowing contact with nature valued by seniors. On the estate, a great number of benches have been set up along the alleys, and they also occur at most of the

entrances to the blocks. Surfaces are mostly renovated, and stairways have handrails. Upgrades, renovations are being carried out on the estate. The central square has been rebuilt, new benches are being inserted. A lot of new infrastructure elements are observed, new plantings (trees, shrubs, perennials).

Seniors do not have their own places on the Błonie settlement, they can only rest in children's recreation areas or use board game stands. There is a similar situation on the Poręba settlement, out of 35 areas, 11 belong to private areas (playgrounds). There are few benches, the greenery is not very diverse. Surfaces are mostly in good condition.

A very small variety of facilities for leisure activities is found in the SBM Oaza estate. There are 19 leisure and recreational spaces, of which 3 are private areas. These are playgrounds located within fenced apartment complexes, to which residents of other blocks do not have access. The remaining 16 are public areas, but as many as 12 are for children's recreational needs in the form of playgrounds. There is very little greenery in the area, and no shade greenery. The problem is the small number of benches, often without backrests and armrests, and there is a lack of benches near blocks, along traffic routes. Surfaces are mostly in good condition.

The study shows that the Adam Mickiewicz estate has the most developed leisure structure, there are areas that meet the needs of representatives of each age group, in addition, they are characterized by a large amount of diverse greenery and elements of leisure infrastructure. ZOR Zachód the oldest of the estates assessed, despite the presence of a large amount of vegetation requires supplementing it with elements of leisure infrastructure, as the area is quite poor in terms of the possibility of realizing the needs of passive or active rest of seniors. The newest estates, which include Poręba, the construction of which began at the end of the 20th century, and Botanik and Oaza, already built in the 21st century, are characterized by the gradual disappearance of the variety and quantity of recreational and leisure spaces over the years. This is due to the fact that developers erecting multifamily development zones do not pay attention

to the needs of residents, beyond having their own unit and parking space. Most often, recreational spaces are playgrounds designed for children under 10 years old, and the rest of the population can only spend their leisure time using the benches located within them, and sometimes there are small playgrounds suitable for only one sport. Green areas are much more sparse than those found in settlements dating from earlier years.

CONCLUSIONS AND DISCUSSION

Several problems were diagnosed in the study areas. One of the main ones that appeared in each settlement is the neglect of the recreational needs of people with disabilities. Only in the ZOR Zachód, Adam Mickiewicz and Błonie estates was the presence of areas allowing passage or free stopping for users with mobility impairments observed in several squares. There is a lack of exercise areas adapted for the elderly and people with disabilities. In most neighborhoods, there is a small number of organized recreation areas adapted to the different activity levels of seniors, i.e. places that older people could use without any restrictions. This includes places for intimate recreation near the entrances to stairwells, as well as at some distance from them. There is a lack of squares with a small area, separated from other activity zones (often oppressive, such as children's playgrounds), intended for a small number of users, for resting in peace and quiet, holding meetings, holding conversations and observing the surroundings. Similar restrictions apply to active leisure zones, such as recreational or sports areas with equipment directly adapted to the limited physical capabilities of seniors, which should enable them to improve their physical condition or at least perform simple physical exercises for rehabilitation.

Another issue is the creation of consistent greenery. A model in the creation of greenery is the Adam Mickiewicz estate, which is distinguished by a park-like establishment. The approach to the formation of green areas mainly within developer settlements indicates that no systemic thinking is being done.

One observes the occupation of biologically-active areas for parking spaces and pedestrian and roadways, fencing off individual development complexes. The dismissive approach of developers has led to an extreme reduction in the natural values of the settlements: Botanik, Oaza and partly Poręba. In these cases, not only is it scarce. Good practices related to the shaping of greenery useful to residents, including for recreation, have been forgotten, and only representative courtyards have been introduced, which are poor in greenery, consisting of lawn and a few small shrubs. The role of greenery in improving health and affecting living comfort is underestimated (White et al., 2013). There is a lack of sensory gardens and community gardens, which have a therapeutic impact. Multifunctionality should be taken into account in their design. Greenery also has functions: they regulate climatic conditions (accumulate heat, provide shade, moderate diurnal temperature fluctuations, retain water, create habitats for animals, etc.), and they can also be used as a habitat for animals. In order for its impact to be maximized, it is necessary to combine it into greenery systems (Bożętka, 2008).

As the years passed, a different approach was taken to maintaining a balance between residential development, leisure and recreational spaces and green areas. Ensuring the right conditions for the formation of the human living environment began to be linked to the provision of appropriate conditions for recreation in the second half of the 20th century. In the Ordinance of 29.01.1974 on indicators and guidelines, the ratio of leisure areas in the settlement per capita (8 sq. m.) and the minimum share of the area allocated for leisure and isolation greenery (not less than 50%) were specified. In the 1980s, the indicators and norms were abandoned. Since 12.04.2002, the Decree of the Minister of Infrastructure on the technical conditions to be met by buildings and their location has been in force. According to it, the area of biologically active areas in relation to the plot area should be min. 25%, and 30% in relation to the area of playgrounds and recreational areas in the building complex (Szulczewska & Giedych, 2010). This has resulted in differences in the quality and level of development

of these structures in individual neighborhoods. Developer developments are not up to par with older housing estates in terms of equipment to enable seniors to spend their leisure time.

Designing public spaces with the needs of seniors in mind is difficult, as this is an inhomogeneous social group. The elderly have different mental and physical abilities, different expectations, capabilities and predispositions (Steuden, 2001). The design efforts of urban planners and architects should move in the direction of creating a fully accessible public space that meets the expectations of all users of the space, regardless of age and whether they are able-bodied or have functional limitations due to dysfunction. Steinfeld and Maisel (2012), Wysocki (2012) emphasize that Universal Design should be used, which implies optimizing their functionality as much as possible. Provisions on the necessity of applying Universal Design are found in the Law on Revitalization (2015, Article 3, paragraph 2, point 3), indications for their implementation are present in the Constitution of the Republic of Poland (Article 32, point 2). In this aspect, the construction law should be amended so that new housing complexes are built in accordance with the principles of Universal Design and provide an opportunity to adapt to the individualized needs of the disabled elderly. The World Bank has determined that for new developments based on this concept, adapting the facility to the needs of people with mobility and perception limitations increases the cost of construction by only less than 1% (Wysocki, 2015). Thus, taking into account the needs of users with reduced functionality, including the elderly at the initial concept stage, significantly reduces the subsequent cost of adapting public spaces and facilities. Admittedly, elevators, ramps and handrails are appearing in new housing developments. Often, however, unexpected things can make it difficult, if not impossible, for some users to use these spaces. Therefore, as Gabryńczyk and Orlińska (2019), who conducted research in Wrocław, point out, none of the newly created or revitalized places can be ascribed the title of fully universal, although most have features that bring them closer to such a designation.

Universal design also does not apply to the creation of places for recreation or the development of green spaces. That's why large-panel estates are an attractive place to live in Poland, competing with new developer apartments with existing infrastructure, greenery. Of course, the degree of development varies in terms of functional structure, not all of them have a full program of housing estate amenities, but the free arrangement of buildings with ample spaces between them allows for the investment of missing services. And accommodating people with disabilities and the elderly is easier than in developer housing estates, where space is scarce (Gronostajska, 2016). The research undertaken shows that modern block housing estates struggle with standards that do not force developers but also in the revitalization of block housing estates leisure and recreational spaces beyond playgrounds. Hence, it is necessary to prepare new standards, implement good practices but also develop processes to enforce certain rules for creating the built environment (Newton, 2015; Wysocki, 2015, 2021).

It is important to identify existing barriers and determine how to overcome them for individual sites. These are necessary activities in organizing support for seniors and helping them transition to a more active lifestyle, despite existing limitations. In order for spaces to be best suited for different groups of seniors, but also to achieve the expected behavior, to act stimulating and invigorating for users, cooperation of experts is advisable: architects, designers, psychologists, sociologists, therapists, rehabilitators. This is essential in terms of functional technical solutions. It is worth adding to this social participation, conducted among all groups of users of settlements. This is important because it is usually assumed that physiological and safety needs are the same for everyone and accepted canons are used in design (Niezabitowska et al., 2013). And research results are interpreted on a large scale. The therapeutic importance of the aesthetic impact of the environment is generally ignored.

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