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Original article

ANALYSIS OF PREFERENCES OF CHILDREN WITH HEALTH LIMITATIONS REGARDING THE ARRANGEMENT OF INCLUSIVE CHILDREN'S PLAYGROUNDS IN MOSCOW

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The research goal is to analyze the data on the organization and level of improvement of playgrounds with an inclusive component located on the territory of three large multifunctional parks in Moscow received from respondents to develop guidelines for organizing children's inclusive playgrounds in large cities. The current research relevance is due to the fact that in Russia, until recently, children with health limitations were isolated from communication with peers and other people due to the fact that in society they were perceived as children with special needs. Therefore, it was believed that such joint communication is harmful to their health and development, and such children should be under constant supervision and attention from parents, guardians, and professionals. In connection with the mentioned opinion, they attempted to isolate children with disabilities from society, place them in special institutions, and teach in correctional schools. By virtue of rich global experience, this position has changed in Russia, and this category of children, now gradually transferred to ordinary schools with an inclusive component, has ample opportunities to develop both physically and psycho-emotionally, along with normally developed children. The research tasks include studying the organization of playgrounds intended for children's recreation in such a way that all features of the psychological and physical condition of children with health limitations are fully taken into consideration. The possibility of the joint stay of children with normal development and children with health limitations within the same playground and their joint cognitive activity and various activities is also studied by means of conducting a survey. With the help of the developed questionnaires and visual material for children, a survey method is applied, implying surveying children, their parents, and guardians. The survey is conducted on the territory of

children's inclusive playgrounds in three large park areas of the city of Moscow. The survey goal is to study the psycho-emotional impact of landscape factors, urban greening, and the level of improvement, design, and construction of inclusive playground equipment on children with health limitations through outdoor games. The research results can be applied in practice in the organization and improvement of new inclusive playgrounds in city parks. Simultaneously, one should take into consideration their accessibility for people with limited mobility and the safety of structures and equipment.

Keywords: *children with disabilities; children with health limitations; organization and improvement of playgrounds; survey; respondents; questioning; comfortable developmental environment; improvement; equipment; level of improvement; city park; persons with limited mobility; rehabilitation; inclusive playground*

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Научная статья

АНАЛИЗ ПРЕДПОЧТЕНИЙ ДЕТЕЙ С ОГРАНИЧЕННЫМИ ВОЗМОЖНОСТЯМИ ЗДОРОВЬЯ ОТНОСИТЕЛЬНО ОБУСТРОЙСТВА ИНКЛЮЗИВНЫХ ДЕТСКИХ ИГРОВЫХ ПЛОЩАДОК ГОРОДА МОСКВЫ

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Цель данного исследования заключается в анализе данных, полученных от респондентов об организации и уровне благоустройства детских площадок с инклюзивным компонентом, расположенных на территории трех в крупных многофункциональных парках г. Москвы для разработки методических рекомендаций по организации детских инклюзивных площадок в крупных городах. Данное исследование актуально на данный момент в связи с тем, что на территории России до недавнего времени, дети с ограниченными возможностями здоровья (ОВЗ) были изолированы от общения со сверстниками и

другими людьми в силу того, что в обществе они воспринимались как дети с особенностями развития. Поэтому считалось, что подобное совместное общение вредит их здоровью и развитию и подобные дети должны находиться под постоянным контролем и вниманием со стороны родителей, опекунов и специалистов. В связи с этим мнением, детей с ОВЗ старались изолировать от общества и помещать в специальные заведения и учить в коррекционных школах. Благодаря богатому мировому опыту, эта позиция изменилась в России и данная категория детей, теперь постепенно переводится в обычные школы с инклюзивным компонентом, имеет широкие возможности развиваться как физически, так и психоэмоционально, наряду с нормально развитыми детьми. В задачи исследования входило изучение вопросов организации детских площадок предназначенных для отдыха детей таким образом, чтобы все особенности психологического и физического состояния детей с ограниченными возможностями здоровья (ОВЗ) были учтены в полной мере. Также изучена возможность, путем проведения опроса, совместного пребывания детей с нормальным развитием и детей с ОВЗ в рамках одной детской площадки и их совместная познавательная деятельность и различные активности. При помощи разработанных опросных листов и наглядного материала для детей применен метод опроса, путем анкетирования детей, их родителей и опекунов. Опрос проведен на территории детских инклюзивных площадок трех крупных парковых зон города Москвы. Целью проведения анкетирования является изучение психоэмоционального воздействия ландшафтных факторов, озеленения, уровня благоустройства, дизайна и конструктива оборудования инклюзивных детских площадок на детей с ОВЗ посредством игр на свежем воздухе. Результаты проведенного исследования можно применить на практике при организации и благоустройстве новых инклюзивных детских площадок в городских парках. При этом необходимо учесть их доступность для маломобильных групп населения, безопасность конструкций и оборудования.

Ключевые слова: *дети с ограниченными возможностями здоровья; дети – инвалиды; организация и благоустройство детских площадок; комфортная развивающая среда; благоустройство; уровень благоустройства; городской парк; маломобильные группы населения; реабилитация; инклюзивная детская площадка*

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Introduction

Currently, in the conditions of the city of Moscow, neural parks and inclusive playgrounds are organized in large urban multifunctional parks for the organization of recreation, education, and development of children with disabilities.

Park of Culture and Recreation named after Gorky is a pilot project that has opened the "accessible environment" program for its visitors. On the territory of the park, there are many inclusive zones for children with disabilities, as well as a special zone for conducting classes with children with disabilities – "Garazh."

Since 2018, a children's playground "Salyut" has been opened in the park, consisting of nine play and training areas. The playground is accessible around the clock to adults and children, and, besides, to people with disabilities. There are special carousels for wheelchairs, which, however, are not very convenient to use. There is an excavator, a table with sand on the territory, and a special sign that tells about the dactyl of the Russian sign language and how to show "Salyut" with gestures. The "Salyut" playground consists of nine individually designed spaces for playing with sand, water, color, sound, height and depth, different textures, shapes, and sizes. Each of these spaces involves all the senses of the child, helping in their development, obtaining auditory, visual, and tactile experience, and giving them the opportunity to feel their own body in space in a new way. The playground is available for children with various forms of disability and groups of diseases, including a number of swings designed for visitors traveling in wheelchairs [14, 224; 15, 92; 18; 19, 137;].

In addition, active work is underway to adapt exhibition spaces, educational events, events, and festivals for visitors with various forms of disability. Trainings on understanding and acceptance of "disability" in society are conducted. Specially trained guides conduct free excursions, master classes, courses for deaf and hard of hearing, blind and visually impaired, deafblind visitors, and visitors with developmental disabilities of different ages. The initiator of the program is the department of Inclusive Programs of the "Garazh" Museum of Modern Art.

In addition to the above programs in the park, it is worth noting the competent location of gaming and sports areas. They are located near the entrance, which facilitates accessibility for people with disabilities. Thus, the park named after Gorky has created enough conditions for a comfortable stay of disabled people and children with disabilities in the park area. It is worth noting that the park is actively informatizing the population about disability, which is a very promising direction. After all, the problem of disability significantly slows down the social interaction of people [6].

One of the largest inclusive venues in Moscow, the "Emerald City," is located in Sokolniki Park, in the 1st Ray Lane, behind Mitkovsky Passage. Children with disabilities can play here. The Emerald City Park has children's attractions, playgrounds, exercise equipment, swings for children with limited mobility, carousels with ramps. A distinctive feature of this site is the fact that the sandbox, trampoline, and maze are located in covered houses, and various kinds of swings and carousels are on the street. Moreover, it is possible to ride wheelchairs on swings and carousels. All rides are equipped with instructions that will help parents figure out and realize their child's dream – to ride a carousel. The park has a playground designed for water sports enthusiasts. An adaptive attraction is provided for wheelchair users – a pool filled with balloons and carousels equipped with ramps. In addition, a rental point has been opened, especially for people and children with disabilities, where they issue technical means for moving around the park territory. The playground is designed taking into account the needs of children of different ages and is designed for visitors with disabilities. The playground is constructed of strong and durable materials and is equipped with unusual swings and horizontal bars, complying with all safety measures. In order for any child to find a place for himself, the playground was divided into zones for children of different ages and a multi-level ramp resembling a roller coaster was constructed. One can go in, run in, ride a scooter or a wheelchair here. There is a prepared stage for performances. The playground is popular with children, volunteers, and charitable organizations. These events are aimed at supporting children with disabilities. Among the positive aspects are (1) large number of gaming equipment for the development of fine motor skills of hands, (2) sound pads with pipes and pedestals (which make a sound when pressed or jumped), (3) Montessori equipment, (4) interesting and unusual terrain geoplasty. Only a few points can be attributed to the disadvantages: (1) on the territory of the playground, the paths are made of gravel, which makes it difficult for children with musculoskeletal disorders to move; (2) in areas of the playground equipped with sandboxes on racks, for children in wheelchairs, access to them is difficult, due to loose sand covering throughout the territory [1, 272; 3, 303; 7, 296; 13, 320].

Garden named after Bauman also has a number of disadvantages that should be noted: (1) there is a ramp in the form of a ship on the site, but there are no handrails on it; (2) there are no covered parts of the site to hide from the rain and summer heat; (3) location of the site is far from the entrance to the park; (4) there are no signs for the visually impaired; (5) carousels are located at the height of almost 25 cm, which is also difficult for children with limited mo-

bility; (6) there are no belts for fixing the child on swings and carousels; (7) lack of equipment for the development of fine motor skills of hands; (8) lack of age restrictions on the use of playground equipment. The authors also note the positive aspects of the park space of this garden: (1) playground is well lit; (2) coating is rubberized, which will soften the fall; (3) presence of a small stage for organizing performances and events; (4) absence of sharp corners on the equipment; (5) sliding surfaces of gaming equipment; (5) isolated territory.

Sokolniki Park has a long history of its existence, so all the gaming and training equipment is worn out and needs to be replaced. Due to the lack of necessary and modern equipment, the Emerald zone will be closed for reconstruction from 2021. On the positive side, the authors draw attention to the fact that from the list of parks presented in the analysis, only in Sokolniki part of the gaming equipment is located indoors. It prevents objects from getting wet and does not make the equipment dangerous to use.

Based on the above, it can be concluded that at the moment, the parks under research are undergoing changes planned under the "Accessible Environment" program. However, many objects now need local repairs or large-scale restoration [6].

Materials and methods

The research of the behavior of children with disabilities can be carried out with the help of (1) interviews and recording answers, (2) obtaining data during observation, (3) analysis when interacting with healthy children, adults, teachers, tutors, when conducting a particular game or training activity.

In this work, the authors used the following methods – survey, questionnaire, observation, statistical processing, and analysis of the data obtained. First of all, the survey method. This research method includes a questionnaire, an interview, and a conversation. A questionnaire is a collection of information arranged in a special list of questions (questionnaire). With its help, the respondent answers questions in absentia. Second, observation. In this research, the observation method is optional, complementing the questionnaire. The secondary importance of the observation method is justified by its subjectivity. This disadvantage is characterized by the influence of the personality characteristics of the subject being interviewed. The advantage of this observation method lies in the emotional component, which cannot be described but can be fixed for further analysis.

To obtain reliable information from parents of children with disabilities, it is advisable to use the questionnaire method. This will allow learning more. Third,

the analysis of documents and scientific literature. The most reliable source of information is documents. To prepare the material, the authors used scientific papers, diagrams, photo tables that make up the subject of this research.

The survey of children and interviews with parents were conducted on the territory of three inclusive playgrounds in the studied parks of the city of Moscow. The survey was conducted anonymously. Respondents were given questionnaires; after filling out, they sent them to the email address indicated on the survey form. An example of the questionnaire is given below.

- *Questionnaire.*

A sociological survey for parents and other legal representatives of children with disabilities – visitors to park areas of Moscow.

Dear visitors of the park!

*Here is a questionnaire that will help identify your preferences and adjust the concept of the park. Please note - some questions involve choosing multiple answers. If none of the suggested options is suitable, you can enter your own. Mark the selected answers with any sign in the column. Send the completed questionnaires to the email address: *****@*** en*

All data will be used in a generalized form, the anonymity of the information received is guaranteed.

- *How old is your child?;*
- *Specify the gender of your child:*
- *Which category of children with disabilities does your child belong to?;*
- *Which of the presented park areas, in your opinion, are the most adapted to the organization of leisure activities for children with disabilities?;*
- *Are you satisfied with the information support, and do you have enough information on playgrounds?;*
- *What do you see as the meaning of game interaction for your child?;*
- *Are there special conditions for your child on the playground?;*
- *What can prevent you and your child from studying on the playground of the park?;*
- *What would you like to recommend to the organizers of the park space when arranging playgrounds for children with disabilities?*
- *Questions for children:*
- *How old are you?;*
- *How far do you live from the location of the park?;*
- *Which of the presented parks in Moscow do you like to walk in?;*
- *Do you know the rules of behavior on playgrounds in park areas?;*
- *Do you like to communicate and play with other children?;*

- *Do you like the games and equipment that the playground has?;*
- *Did it take you long to get here?;*
- *Did you want to see new interesting play complexes on the playground?*

The survey aims to study the psychoemotional impact of landscape factors on children with disabilities. In particular, the authors wanted to know parents' opinions on the organization of play space for such children. Parents and legal representatives of children were happy to answer all the questionnaire questions. The survey of children was conducted jointly with their parents for greater peace of mind of the child. The questions implied answers "Yes," "No," "I find it difficult to answer."

Communication with the child began with abstract topics, such as the following: (1) "How old are you?"; (2) "What is your name?"; (3) "Do you like the weather?"

A comfortable emotional environment is very important for communicating with children, so the authors addressed them with a smile, friendly attitude, and respect. When receiving answers to questions, children were praised and applauded, showing them joy, from which they received a positive reaction from respondents [5; 10; 16]

The number of children participating in the survey was limited to 23 people of secondary school age. This was due to the fact that not all parents allow communicating with their special children, as many have psychophysical disorders. According to the guardians and parents, children have abnormalities in mental development, and communication with an outsider can frighten them and negatively affect their condition as a whole. As a result, out of all the children surveyed, it was possible to form groups by categories of their diseases: (1) with disorders of the musculoskeletal system; (2) with hearing impairment; (3) with intellectual impairment; (4) with speech impairment; (5) with autism spectrum disorders [11; 12, 27].

As a result, the evaluation of the research results was based on the interpretation of the data obtained. There was also a problem when conducting a survey to identify preferences in the gaming equipment used with boys and girls with the disease – autism [2; 4, 120]. Two out of three people refused to talk and showed irritability towards the new person. Given the lack of attention of children with disabilities, the survey was conducted in a quiet place, the sound on the phones was turned off. In order not to cause aggression in the interviewed children, the clothes of the respondents were neutral tones.

The term "Neural Park" is present in the work. It means a closed or open park space, well-maintained and comfortable for low-mobility groups of the

population, saturated with appropriate gaming, sports, developmental equipment that can be used by all categories of the population for joint recreation, sports, etc. In most Western countries, such parks are very common. However, this concept is new in Russia, and there are not many such park spaces yet. Most often, already established inclusive sites in large urban multifunctional parks are adapted for neural parks [8, 247; 9, 179; 17, 92].

The authors conducted the research in three large city parks in the center of Moscow: (1) Park of Culture and Recreation named after Gorky; (2) Sokolniki Park; (3) Botanical Garden named after Bauman.

Park of Culture and Recreation named after Gorky is a pilot project that has opened the "Accessible Environment" program for its visitors. On the territory of the park, there are many inclusive zones for children with disabilities, as well as a special zone for conducting classes with children with disabilities – "Garazh."

Results

In the summer of 2019 and 2020, the authors conducted a survey among parents and guardians of children with disabilities – visitors to the Park of Culture and Recreation named after Gorky, to identify difficulties in implementing effective inclusive work on the development of a neural park. The authors interviewed 76 respondents from among the visitors of the gaming park zone. Representatives of children (1) with musculoskeletal disorders are 42 people, (2) 13 people – with hearing impairment, (3) 12 people – with intellectual disabilities, (4) 6 – with speech disorders, (5) 3 – with autism spectrum disorders (Fig. 1).\

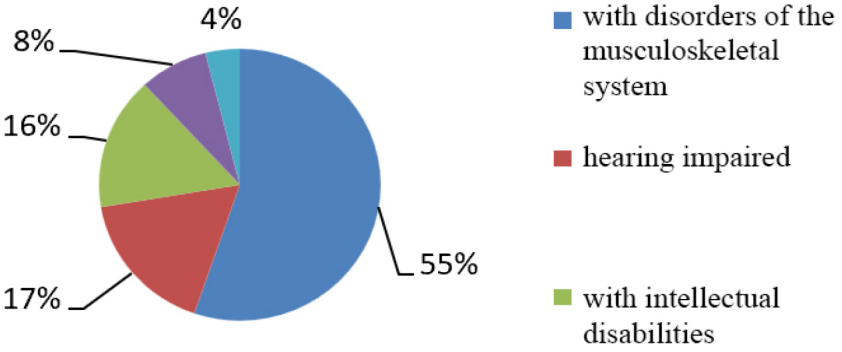

Fig. 1. Results of the survey on groups of diseases in the surveyed children with disabilities

Then it was found out which of the park areas of Moscow is the most attractive for organizing leisure activities for children with disabilities. Depending on the sampling criteria territorial remoteness, accessibility of inclusive programs, standards of organization of park space (1) 63% voted in favor of the Park named after Gorky; (2) 27% voted in favor of the Garden named after Bauman; (3) 10% replied that Sokolniki Park is the most attractive (Fig. 2).

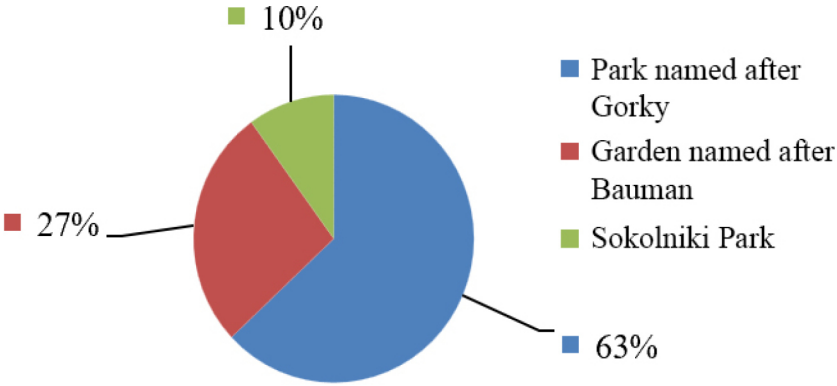

Fig. 2. The results of a survey conducted in multifunctional parks of the city of Moscow on the choice of a park for children with disabilities interviewed

Parents and guardians also assessed the level of information support for parks. Among them, 5% of respondents spoke about the possibility of advertising integration of park areas through television and mass media, as well as the Internet. There are signs with rules of conduct and age restrictions on the territory of playgrounds. Most respondents (95%) agreed with this statement.

It has also been found out how the social interaction of such a format of information forms positive beginnings of the child's personality. Fig. 3 shows the answers to this question. Often, the answer to the question about the meaning of the game interaction of children with disabilities is due to the need for socialization of the child in society – 52% answered this, as well as the desire to spend time usefully – 13% gave this answer. Contrary to the widespread stereotype, the majority of respondents ignored the answer that inclusive playgrounds will help overcome difficulties in life. Only 8% of respondents believe that this can contribute to the independent development of a child as a person. Among all respondents – 2% say about getting a positive experience in the interaction of children and adults, during the game, at similar venues. The remaining 2% spoke incorrectly (Fig. 3).

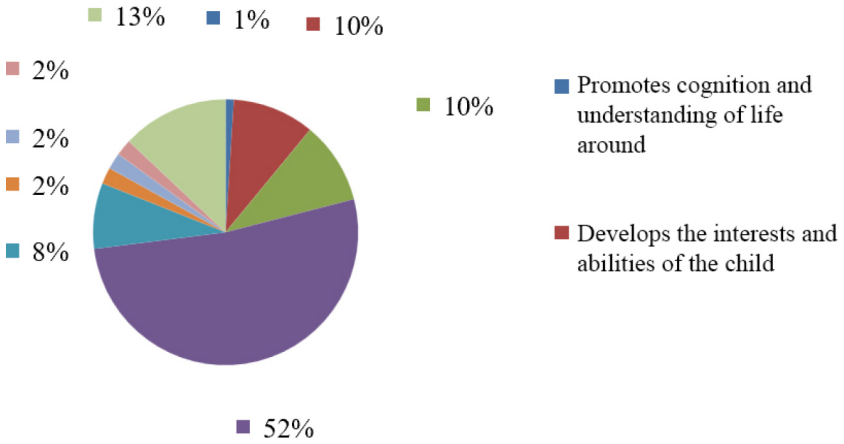

Fig. 3. The result of the survey "The importance of social interaction for children with disabilities."

In all the parks studied, special equipment placed on playgrounds meets the needs of the younger generation and their parents. The most important condition for the functioning of playgrounds, parents note the safety and fun of children. Many considered these concepts mutually exclusive (Fig. 4). The insufficiency and poor quality of gaming equipment were indicated exclusively by representatives of small-sized groups.

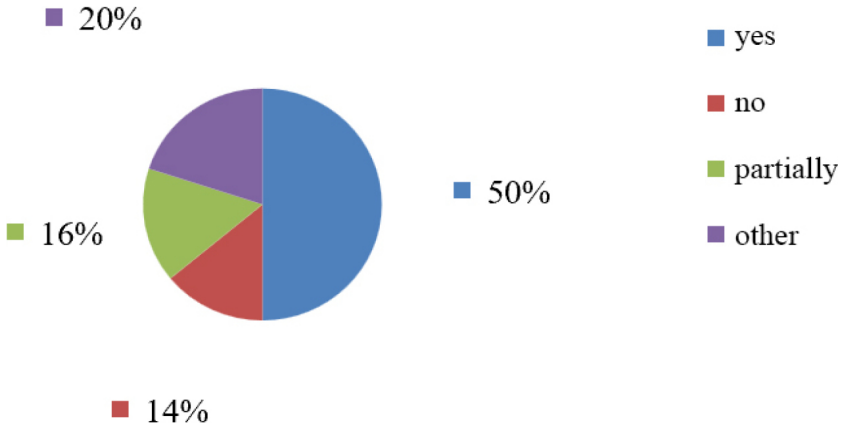

Fig. 4. Respondents' satisfaction with the quality of gaming equipment and space in multifunctional parks in Moscow

On the question of the elements of park zones that create obstacles for children's recreation in the park, the respondents' opinions were divided. However, some trends can be identified. Thus, 39% of parents visiting the Park of Culture and Recreation named after Gorky, as well as Sokolniki Park, believe that playgrounds are located far from the entrance to the park. This indicator increases among the surveyed group of children with disorders of the musculoskeletal system. The park named after Gorky has no such problem. At the same time, 58% of respondents complain about the negative attitude of healthy children. This is due to the fact that playgrounds designed for children with disabilities are combined with the main play areas of ordinary children. In total, 3% of respondents indicate the manifestation of indifferent feelings towards some equipment, in particular, wooden bridges and nodal cables. For the rest, the level of equipment and well-being of playgrounds for children with disabilities is satisfactory.

When developing recommendations for the improvement and equipment of inclusive playgrounds, it is necessary to focus on the development of park space and adaptation to the needs of disabled people. Thus, 67% of respondents concluded that it is necessary to increase the number of park areas for children with disabilities because the "Accessible Environment" program is currently being implemented only in large metropolitan cities.

When analyzing the remoteness of an inclusive playground from the entrance, 8% of respondents indicated the possibility of organizing playgrounds closer to the entrance or exit (this group of people was interviewed in Sokolniki Park and Park named after Gorky). Almost one-fourth of respondents (23%) chose the answer option, which involves limiting the interaction of healthy children and children with disabilities. The rest, 2% of respondents, refrained from answering (Fig. 5).

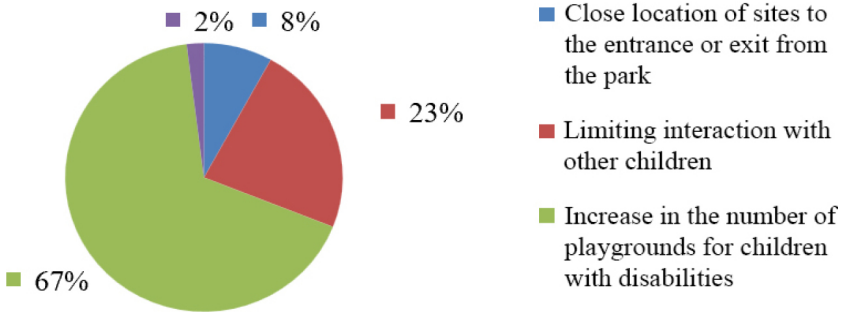

Fig. 5. Survey results on the remoteness and location of inclusive playgrounds in parks

In the same way, a survey of children with disabilities was conducted in other parks – Sokolniki, Park named after Gorky, Garden named after Bauman.

After inquiring about the conditional place of residence of the child, the authors came to the conclusion that it is the territorial remoteness from the park that is the main factor influencing the choice of an inclusive playground. This is the opinion held by 83% of respondents. The other 17% of respondents had difficulty answering due to immaturity and other hindering factors.

The next question seemed to children from five to nine years old, naturally, easier. The answers correspond to the location of the survey. Of the children surveyed, (1) 43% chose the Park of Culture and Recreation named after Gorky, (2) 26% preferred Sokolniki Park, (3) 31% preferred the Garden named after Bauman.

In the continuation of the survey, children had unsatisfactory knowledge of the rules of behavior on playgrounds established by the park administration. As a rule, this obligation is assumed by the parents and guardians of the interviewees.

Of the surveyed children aged five to nine years, 81% said "no," and 2% of children aged 10 to 15 years with a mild degree of mental retardation also gave a negative answer. Almost one-tenth (9%) of adolescents over 15 years old, not related to intellectual disabilities, confirmed the question.

To the question of social interaction, in view of psychological and physiological characteristics, children with disabilities gave ambiguous answers. The analysis showed that 63% of respondents are sociable with their peers. However, in many ways, these communications are formed in a non-verbal form – movements, performing any actions, showing emotions. The opposite situation develops in children with a violation of the musculoskeletal system. They are prone to inactive types of games. Fifteen percent of children of the younger age group had a tendency to single games. Two interviewed children with serious intellectual disabilities could not answer the question.

The question about the inventory of special park equipment did not cause difficulties for children. All are 100% satisfied with the content of playgrounds.

Based on the survey results, it follows that it is inconvenient for children with disabilities to visit remote parks. So, all respondents spend a little time on the way to the park.

To the last question of whether children would like to upgrade the park equipment, the respondents also answered unequivocally.

Discussion

Any group of diseases creates obstacles to the development, games, and recreation of disabled children. These barriers arise during the operation of playgrounds, buildings, structures, as well as in the process of using various

services. Wheelchair users encounter, as a rule, urban landscape structures – steps, thresholds, ramps, and information signs installed with violations, doorways, and so on.

Persons with a violation of the musculoskeletal system with great difficulty overcome barriers – thresholds, slippery coating, opening doors or windows, putting on clothes, and so on. Especially acute obstacles are experienced by people with disorders of the motor apparatus of the hands since there is practically no infrastructure for barrier-free social existence in the urban environment.

To achieve graduation in this area, it is necessary, first of all, to equip urban facilities with technical means and, where this is not possible, to provide the services of specialized employees of the facility.

In Western countries, workers providing social services to people with disabilities are an effective resource in parks and public places. Their competencies include the following: (1) boarding and disembarking disabled people in public transport using wheelchair access; (2) assistance in boarding and disembarking in front of the facility; (3) taking measures when accompanied by people with disabilities who have well-established visual impairments; (4) work on informatization of people with disabilities about ways of public transportation around the city; (5) interaction with disabled people on informing about the services provided, including the legal registration of relations. In addition, social protection agencies provide services to people with disabilities suffering from hearing impairments using sign language, with the access of a sign language interpreter and a typhoid interpreter.

The inclusiveness of the organization of the park space includes aspects of different design methods. First of all, it is necessary to divide the boundaries of zones for active activities and, accordingly, passive ones. In addition, an important component is the selection of the necessary special equipment.

In order to optimize the space, the "Accessible Environment" projects must necessarily include compositions (i.e., artificial objects made in a certain order and combination).

When composing such a composition, the properties of spatial forms are taken into account, namely: (1) texture; (2) color and illumination; (3) magnitude; (4) mass; (5) position in space; (6) geometric structure of the form.

Setting out the problem of social identity, it is impossible not to note that many inclusive playgrounds are linear and monopolar. This can be traced in modern park areas of the city of Moscow regarding the issue of adaptability of equipment. Manufacturers can adapt the design of the equipment to the needs of children so that they have sufficient access to stay and play. Due to the fact

that there is a possibility of inappropriate use of equipment by children, it is necessary to take care of the safety of the materials used in the construction.

Conclusion

Thus, when organizing urban park space, it is necessary to be guided, first of all, by inclusion. In pursuance of the provision on social protection of people with disabilities, this judgment is not recommendatory but a disposition fixed by the norms of law. The replication of it will create favorable conditions for the full development of children with disabilities. Indeed, many projects on the organization of inclusive park zones are being cut, adjusted, and redrawn in accordance with the concept of financial policy. This judgment is confirmed by the research results regarding the state of modern gaming park equipment. Many of its elements are influenced by external factors, due to which it becomes unusable, posing a danger to children. The issue of financing is not new in modern science. However, it deserves attention due to the tacit privilege of a part of the population with disabilities. The health and even the lives of children depend on the quality of the work performed.

When implementing inclusive space projects, it is necessary to take as a basis the physical and psychological aspects of the child as fundamental factors of the burden of park construction. It is necessary to focus on disorders of the musculoskeletal system since the cultivation of playgrounds for people with this group of diseases should occur with significant structural changes of special equipment.

On the territory of the Park named after Gorky and Sokolniki Park, special equipment does not have a base capable of satisfying the interests of all children with various groups of the disease. For example, there are no ramps on the swing, without which it is impossible to lift a wheelchair user safely. It follows from this that the park space has not completed its design and requires prompt intervention on the part of designers.

The main method of collecting information in a real urban environment is a questionnaire. The survey revealed public opinion about the criteria for planning playgrounds. According to parents and guardians, the main problem is the proximity of play equipment designed for interaction between healthy children and children with disabilities. In addition, children and their parents are dissatisfied with the remoteness of many play areas from the entrance point to the park. Moving around the park can be difficult, given the limited mobility of disabled children.

An important aspect on the way of rehabilitation and socialization of children with disorders of the musculoskeletal system is the construction of inclu-

sive sports complexes on the territory of cultural parks. The developers of this equipment take into account all possible precautions since even a minor mistake in the layout can cost a child health. The territory of the Park named after Gorky has a modern football court for low-mobility groups of the population. For the convenience of visitors, the sides, thresholds, and other barriers were leveled here. Thus, inclusive sports zones represent effective models of play interaction of children with disabilities. It should be noted that these activities activate children with health disorders, speeding up the process of their socialization.

When developing methodological recommendations, attention should be paid to the results of a comparative analysis devoted to the construction of inclusive and standard playgrounds in the park. Thus, the results showed that it is more cost-effective to build inclusive playgrounds for disabled children, contrary to public opinion. Therefore, there is an acute issue related to management decision-making. There is no sufficient reason to believe that implementing the state program "Accessible Environment" requires large financial investments.

According to the results of survey that includes children with health limitations and their parents and guardians, preferences regarding the organization and improvement of territories and equipment for children's inclusive playgrounds are revealed. Most of the surveyed children are persons with health limitations that include various disorders of the musculoskeletal system (55%), and therefore, the issue of the proximity of these sites to the primary entrances to the park is reasonably relevant. Additionally, one should take into account the peculiarities of the movement of children groups in wheelchairs. A substantial category of children has hearing impairments (17%), which means that they need a safe play space with bright, visual instructions for using the playground equipment. Of the three existing inclusive sites in the city of Moscow, 63% have allocated an inclusive site in the Park for Recreation and Leisure named after M. Gorky, describing it as the most comfortable. Having studied the global experience in organizing playgrounds for children with health limitations, the authors can conclude that the trend of socialization of such children during joint games is gradually emerging in Russia. Simultaneously, many respondents, including parents and guardians (67%), note an acute shortage of such playgrounds for children with disabilities. Furthermore, 52% of respondents state that social interaction is necessary and useful. Only half of the surveyed parents and guardians are satisfied with the quality of the playground equipment. Existing inclusive playgrounds require modernization and updating of playground equipment. At the same time, there is a lack of visual and understandable information concerning the rules of conduct on the playground and ensuring safety when using playground equipment.

Summarizing the factors mentioned above, in the territories of inclusive playgrounds of the three studied parks, it is necessary to modernize and repair the playground equipment, increase the level of interaction between children during games, ensure the availability of these playgrounds for groups of children with limited mobility with disabilities of the musculoskeletal system, ensure the safety of games and activities on fresh air for children with hearing and vision impairments, and develop cognitive activity and socialization in children with mental ineptitude. In the future, every city or district park should have such a playground for games and joint leisure of children with health limitations.

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