

## RESEARCH ON SOCIAL SPACE IN REHABILITATION HOSPITAL FOR CHILDREN IN RADZISZOW, POLAND

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### Abstract

The paper subject is known and respected in the world but precursory in Poland. Children go to the hospital not by choice but by chance. The fact that they are in a situation incomprehensible for them enhances an unfavorable hospital environment. What can be done for small users to help find themselves in the given space and how to interfere with that space to help healing process? Hospital case study in Radziszow allowed to specify a number of interesting conclusions and answers.

### Streszczenie

Tematyka artykułu jest znana i podejmowana na świecie natomiast w Polsce jest prekursorska. Dzieci trafiają do szpitala nie z wyboru ale z przypadku. Fakt, że są one w sytuacji dla nich niezrozumiałej, zwiększa niekorzystny wpływ środowiska szpitalnego na nie. Co można zrobić dla małych użytkowników aby pomóc im odnaleźć się danej przestrzeni i jak wpłynąć na ową przestrzeń aby wspomagała proces gojenia? Studium przypadku szpitala w Radziszowie wykazało szereg interesujących wniosków i odpowiedzi.

**Keywords:** Children's hospital; Social space; Rehabilitation; Space "between"; Healing environment.

## 1. INTRODUCTION

Pediatric facilities are ones of the most vulnerable, personified spaces in the hospital. The increasing need to introduce the healing environment and awareness that the architectural and behavioral context have influence on recovery helped to conduct a case study in the Children's Rehabilitation Hospital in Radziszow in Poland. The issue of the healing environment is considered in the literature by in cans of a number of factors: color, light, senses (touch, smell, hearing), wildlife, landscape architecture and space "in between". They stimulate the body and its innate ability to "self-healing". Realizations of children's hospitals in the world show that social spaces are an important topic in the design. The Polish hospitals, most of which date from the 70's, ignore these issues.

Case Study in Radziszow hospital have the objective to analyze how and where to intervene in the building functional system to increase the therapeutic efficiency. Improvement of the environment quality could contribute to the creation of a "healing environment".

## 2. LITERATURE REVIEW

This part distinguishes literature relevant to the research. At the beginning the social space term should be explained. That issue is considered by Wallis (1990). It is recognized as an area of ideas, values, rules by which a community identifies a specific site. He says that the same place can be perceived in different ways, evaluated and used by the individual. He emphasizes that the social space consists not only of physical or natural features, but also the imaginations

about it. It is assumed that the base is a vast area of cultural values, which reflect the structure and the functional needs of the community. Hall (2001), another theorist who focuses on the problem of the space, assumes that it is one of the basic parameters of life. He says that there is a relationship between the nature of the social structure, mental and physical behavior, intellect, culture and economics. Lawson (2000) defines a space as an element separating people as well as obligating people to be together. Norberg-Schulz (2000) examines the social space as an important aspect for guidance. The man must understand spatial relationships to be able to function well in the object.

The space issue is particularly important in the context of children for whom the world is subjectively centralized. Children see an image consisting of many constant stable elements, because they have little ability to study the environment in terms of perceptive and content. Piaget (1969) shows, however, that the space of a small child is a separate set of spaces, each of which is centered around a single action.

Samueli Institute developed the concept of an optimal healing environment that defines the elements of the social, physical, psychological, spiritual, behavioral supporting the body's innate ability to heal itself. People in the hospital are under stress, which could be reduced with the help of art that gives a sense of peace and comfort. Domka (2010) sees it as a comforting factor that plays an important role in the treatment. Ruth Brent Tofi reviewed the literature on color at the hospital. Park (2007) discovered that the more color is used in the building, the better the environment becomes for children and their families. Treatment with the art is one of the therapy, which is effective in overcoming many of the problems. Malley (2002) noted that more cheerful, happy colors contribute to a faster recovery. There are other therapies such as music therapy, aromatherapy, dogotherapy that support the friendly atmosphere and sense of fun and also helps to relieve stress and anxiety, improving the overall quality of health care.

In an attempt to determine the appearance, function and location of social space in the hospital it was necessary to identify methods that would help in identifying and authenticating users. Public participation became one of the tools that helped answer a number of questions. It is a method more often used in the world in scientific research. However, a few of them have been conducted with children and adolescents. This issue highlights Bishop (2008). Research with

children are still considered unreliable, it is claimed that children do not have knowledge on a given subject and that they cannot make decisions. The author underlines the immense value of participating research conducted with the participation of members of small hospital. The encourages to the involvement of children in the design process, pointing out that they are not passive recipients of experience of hospitalization. They provide invaluable information for understanding the functioning of the society from the perspective of hospital users. Rivlin and Wolfe (1985) in their long-term pediatric hospital research emphasized the vulnerability of children to the nature of the institutional environment, the overwhelming need for control and integration with the environment. Lack of early recognition of children reinforces the need to understand the physical environment of children. Praud and James (1990) assumed that young people have a unique insight into their own experience, where adults are not able to reflect. The question then arises what methods reach the users at different developmental age? Sanoff (1992) suggests several ways to obtain information, such as, inter alia: characteristics of users and their activities, gathering information on the basis of structured techniques (interviews, observations) imaging method (designed to review similar types of spaces, buildings), the method of "passing by" (used to assess and the most accurate when it comes to the study of children and adolescents), visual rating scale (made with the help of additional items). Generally the belief is being confirmed that drawing, music and playful techniques are the most desirable. Other users were kept in mind while conducting research at a hospital for children whose number far exceeds the amount of pupils. It was important to identify their needs using the following methods: interviews, questionnaires, about which Sanoff writes (1999) too. McCuskey Shepley (1998) presents in details the health care environment of children and parents using various methods such as: maps of behavior, projection analysis, functional relationships and graphical methods.

Many factors have an impact on improving health. Studies conducted over the years show that medicine brings effects not only by means drugs of application but also by external factors stimulating the body to secrete a number of enzymes (such as laughter-inducing endorphins) that increase the possibility of faster recovery.



Figure 1.  
Children's Rehabilitation Hospital in Radziszów

### 3. SUMMARY OF FINDINGS

A project of a hospital in Poland is mainly based on the standards and regulations defining the treatment area. Unfortunately, the public, social space not used for treatment, which also creates a healing environment, is usually neglected. The social space is used by children, staff, parents and visitors.

The projects of hospitals are often based on the experience of the architect and not on research. An additional problem is that information about Polish hospitals is not publicly available. Managers of health facilities fear the use of surveys because they could lead to increased awareness of patients and hospital staff and result in claims to improve the standards and conditions in specific units. For these reasons, the study undertaken in present doctoral project seems to be pioneering.

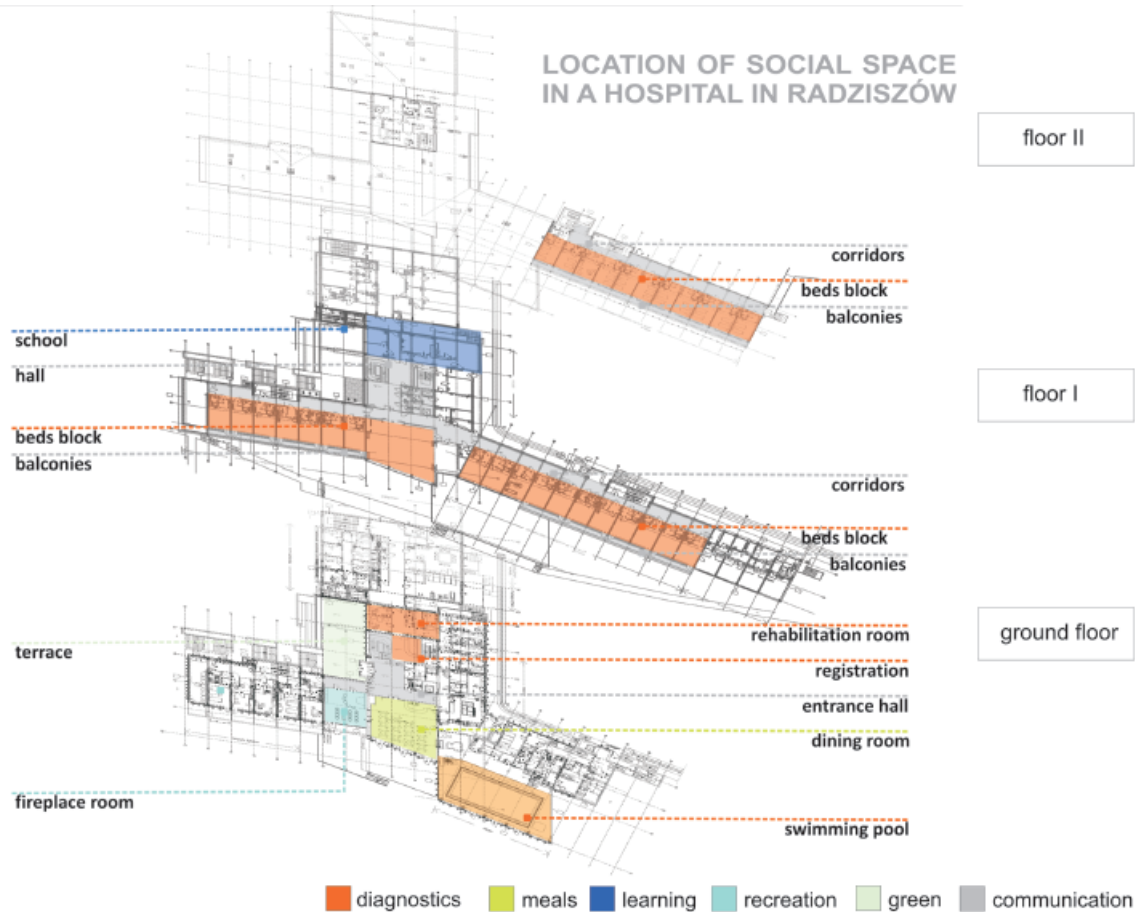
During the analysis of the foreign literature was noticed that in the West similar researches have been conducted for over 30 years and are published and available to architects and investors. Using the foreign experience, It was tried to analyze the social space in Polish hospitals for children. In particular, it was wanted to answer two basic questions:

- What are the needs of users?
- How can social spaces support the functioning of the hospital?

The research was conducted in the Children Rehabilitation Center "Solidarity" in Radziszów near Cracow, Poland (Figure 1).

At the beginning of its existence in the 80's the building was featured as a resort for the elite of the Communist Party. Then it had been turned into a rehabilitation center for children. Annually, the hospital treats around 450-500 patients; their stay at the hospital is usually long and lasts from 6 to 12 weeks. Almost half of the patients return to the hospital repeatedly. This is connected with specificity of the facility, which specializes in the treatment of motor organs and various neurological, neurosurgical, orthopedic and rheumatologic disorders.

The nature and specialization of the hospital was the main criterion of selection of the site for doctoral project. An important factor was that the premises was under reconstruction. It was hoped that my research may have influence on the management's decisions concerning the future design of the hospital. Preliminary studies have established the institution of so-called space "In between". These spaces are understood as areas for patients stimulation at the time when there is no rehabilitation process (Figure 2).



**Figure 2.**  
Location of social space in a Hospital in Radziszow

The research in Radziszow was conducted in 2010 and early 2011.

The project was divided into three stages:

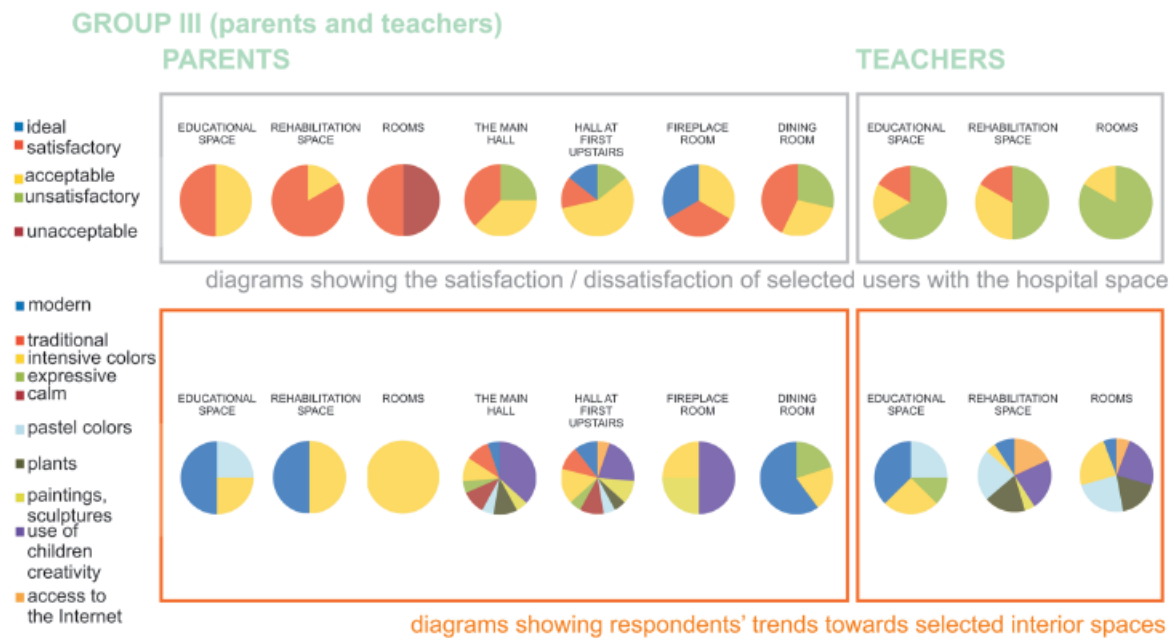
- Stage 1 – a pilot study;
- Stage 2 – a study involving social participation;
- Stage 3 – conclusions and summary.

The first stage consisted in familiarizing myself with the building, its location and the staff. I also obtained the necessary documents such as the history of the building, specifications concerning its specialization and technical documentation. I learned about the day plan of the patients. The next step was to identify the main advantages and disadvantages and the functioning of the building. Four aspects have been taken into consideration: the surroundings, the shape of the building, the building's interior and the patients' rooms. The data was gathered by means of interviews, observations and photographic documentation.

The second stage involved social participation and was conducted with the help of 11 fourth-year students of the Faculty of Architecture at Silesian University of Technology. The students were divided into four workshop groups.

The aim of this study was:

- to identify and analyze the social spaces in the hospital,
- to propose solutions to the problems identified,
- to identify user needs,
- to collect materials about the hospital environment,
- to obtain information about the spatial preferences of users,
- to attempt to understand children's needs for leisure activities,
- to understand the changes suggested by the users,
- to learn the advantages and disadvantages of the



**Figure 3.** Diagrams showing summary of findings with parents and teachers. Scheme developed in collaboration with students during activities of social participations

current functioning of the facility,

- to collect information about the new forms of leisure activities,
- to monitor the functioning of social spaces during the day.

Each group engaged in researches in the relevant user groups and used different tools. The first group dealt with the patients under 12 years of age. The following tools were used:

- children's drawings,
- children's designs of the corridor floor,
- Interview with the use of a tool to facilitate communication (conversation with a teddy bear),
- Determination of leisure time in the hospital (the choice of activity),
- Identifying preferences of children with the development of the space of the hospital,
- Clarifying the color preferences.

The second workshop group dealt with children aged 12 to 18. The study was conducted on the basis of the design of the corridor floor and interviews based on two questions:

- How do you spend your free time in the hospital?
- What do you like in the hospital and what is wrong?

The third group conducted interviews with the

patients' parents and teachers. The questions concerned the space in the hospital, the extent to which it meets their expectations, and the places in which they like to spend their time and in which they don't. Teachers also were asked about the ways of spending free time (Figure 3).

The fourth group conducted the poll among the medical personnel. The aim of the survey was to get to know their opinions about the hospital. The poll was carried out among 10 employees from a 60-person staff including doctors, physiotherapists, therapists, speech therapists, psychologists and nurses. For those twelve survey questions were presented related to the following issues:

- Facility and hospital environment (environment, body, interior),
- The possibility of spending free time in the hospital,
- Initiatives of patients for changes in the facility.

To complement the research taking place in parallel with the workshops surveillance of selected sites was conducted at different times of the day. It showed how many people used given spaces and at what time.

what facilities are available to patients (without supervision)?

- room
- dining room
- hall on the main and first floor
- corridors

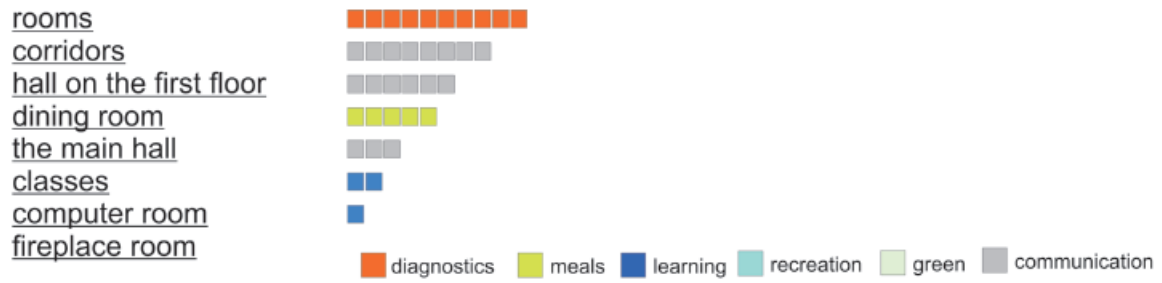
in which spaces children usually spend their spare time?

Figure 4.  
Results of research

## 4. CONCLUSION

The results of the study have shown:

### 1) Among the patients:

- young children have more free time than the older,
- the building hasn't got space for play, recreation, musical and artistic development,
- there is a problem of separation of girls and boys,
- there is a lack of space for meetings with parents and their household pets,
- children need places where they could be on their own,
- there is a lack of space to allow contact with the surroundings outside the hospital,
- there is a shortage of sport facilities,
- each case of leaving the premise should be monitored,
- there is a need for multipurpose rooms, which could be used during leisure time,
- the color scheme of the inside should be more cheerful and varied depending on age,
- there is a lack of items available in daily home life.

### 2) In the group of parents:

- a wish to exhibit children's works,
- rehabilitation spaces are not used outside working hours,
- parents do not have the conditions to stay with the children in the building,
- lack of a waiting room, and places where the parents could work or rest,
- the existing educational rooms are not used,
- lack of a common room.

### 3) In the group of the staff:

- Children in the hospital stay mainly in the room, then in the corridor. Other places include spaces such as the school hall, the dining room, the main hall, the classroom, the computer room.
- The introduction of equipment to enable rehabilitation by playing in free time, such as sensory pathways, balancing boards, suspended platforms, hammocks, block – modules, meeting the ball.

As a result of the study, the following public spaces have been identified (Figure 4):

- the main hall,
- the dining room,
- the fireplace room,
- the corridors,
- the hall in front of school,
- children's rooms.

The analyzes also revealed spaces that can serve multiple functions:

- rooms for rehabilitation,
- the swimming pool,
- rooms for studying,
- the computer room.

The workshops provided a wealth of information on the deficiencies found by the children. The result of the analysis of the data is that children miss the activities and items which are used in their daily life. The same is true for the parents, who lack the facilities needed for daily life with their children, such as the laundry, the kitchen, or space for work. The study also revealed that it is also possible to use free time for rehabilitation. Despite the attractive and beautiful surroundings of the hospital, the children do not have contact with nature.

Additional information obtained during the workshops is that in defining their color preferences, the children relate to nature and everyday life and to abstract elements. They prefer universal, timeless and fashionable themes stimulating reflection and symbolic images. They point to the diversity of the facility and stress the importance of interactive elements to stimulate all their senses. The role of themes familiar from cartoons was found to be lesser than expected, since the themes quickly become boring and the children quickly grow out of them. Children are fascinated by the unknown and by the natural world seen from a close distance; they like close-up photography. The hospital should be surrounded by nature, which creates a healing environment and supports the therapeutic process.

It should be emphasized that despite the fact that this object has many deficiencies, it has also a great potential. Some of the suggestions presented in the present study are easy to implement during the reconstruction process. If they were, they could radically change the "living" conditions in the hospital and, as a result, positively influence the treatment process.

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