

CORRECT ORGANIZATION OF THE DESIGN SOLUTION FOR THE RECONSTRUCTION OF MEDICAL INSTITUTIONS

Gulchekhra Meliboeva

Graduate student, Tashkent university of architecture and civil engineering

gulchekhrameliboeva@mail.ru

Abstract: *This article explores the importance of proper organization in the design solution for the reconstruction of medical institutions. The reconstruction of medical institutions is a complex process that requires careful planning and execution. The design solution for the reconstruction of medical institutions plays a crucial role in the success of the project. The correct organization of the design solution involves several factors that should be considered during the planning and execution process. These factors include the needs of the medical institution, safety, accessibility, medical technology, and sustainability. The design solution should be tailored to meet the specific needs of the medical institution and ensure the safety of patients, medical professionals, and visitors. Accessibility should also be taken into account, ensuring that the medical institution is accessible to all individuals, including those with disabilities. The latest medical technology should be incorporated into the design to ensure that medical professionals can provide quality care to patients. Sustainability should also be considered, ensuring that the medical institution is energy-efficient and environmentally friendly. By investing in the correct organization of the design solution, communities can ensure that they have access to quality medical care that meets their needs.*

Keywords: *Design solution, Reconstruction, Medical institutions, Medical technology, Medical professionals, Sustainability, Organization, Healthcare design.*

INTRODUCTION

The relevance of scientific work is due to the lack of modern approaches to planning the organization of innovative medical institutions in the context of the inevitable development of the health structure. Our scientific work aims to develop the principles of organizing architectural and planning systems for modern health facilities. Hospitals are significant institutions that provide medical care to individuals in need. They play a vital role in the community, and they must be able to meet the needs of patients and medical professionals. As time passes, hospitals can become outdated and require reconstruction to ensure they can continue providing quality care. In this article, we will discuss the importance of the reconstruction of hospitals and what factors should be considered during the process. The reconstruction of medical institutions is a complex and challenging process that requires careful planning and execution. The design of the reconstructed medical facility plays a critical role in ensuring that it meets the needs of patients, healthcare providers, and the community at large. A well-organized design solution is essential to the success of the reconstruction project as it takes into account all the relevant factors and stakeholders.

To meet the ever-increasing demands of the healthcare industry, the proper design and organization of medical institutions have become crucial. With the rapid advancements in medical technology and the need for efficient healthcare services, it is imperative to ensure that the design solution for reconstructing medical institutions is both effective and optimal.

Correctly organizing the design solution for the reconstruction of medical institutions requires careful planning and consideration of various factors. These factors include functional layout, patient flow, accessibility, safety, and efficiency. By addressing these aspects in the design process, medical institutions can create a conducive environment that enhances the patient experience and improves overall healthcare outcomes.

Functional Layout: A well-organized functional layout is essential for the smooth operation of medical institutions. This involves strategically placing different departments, such as outpatient clinics, specialist units, laboratories, and emergency facilities, to maximize efficiency and minimize patient wait times. Additionally, the design should incorporate adequate space for administrative offices, staff rooms, and support services. A well-thought-out floor plan ensures a seamless flow of patients and personnel, enhancing the overall functionality of the institution.

Patient Flow: Efficient patient flow is vital for timely diagnosis, treatment, and a positive patient experience. The design solution should prioritize creating clear pathways that guide patients from the entrance to registration, examination areas, and treatment rooms. Minimizing congestion points and optimizing traffic patterns within the institution can significantly improve patient flow and reduce waiting times, ultimately enhancing patient satisfaction.

Accessibility: Creating an accessible environment is crucial to cater to the diverse needs of patients, including those with physical disabilities or mobility issues. Implementing universal design principles ensures that medical institutions are accessible to all individuals, regardless of their abilities. This includes providing wheelchair ramps, wide doorways, accessible restrooms, and elevators. By prioritizing accessibility, medical institutions can promote inclusivity and cater to the needs of all patients.

Safety and Infection Control: The safety and well-being of patients and healthcare providers are of paramount importance in medical institutions. The design solution should incorporate measures to prevent the spread of infections, such as proper ventilation systems, hand hygiene stations, and isolation rooms. Additionally, the layout should consider emergency exits, fire safety measures, and the installation of appropriate security systems. Ensuring a safe environment promotes patient trust and confidence in the healthcare facility.

Efficiency and Sustainability: In an era of rising healthcare costs and limited resources, designing medical institutions with a focus on efficiency and sustainability

is crucial. Incorporating energy-efficient systems, such as LED lighting and smart HVAC systems, can reduce operational costs and minimize the institution's environmental impact. Additionally, optimizing workflows and utilizing technology, such as electronic medical records and telehealth services, can enhance efficiency and streamline patient care processes.

In conclusion, the correct organization of the design solution for the reconstruction of medical institutions is vital for meeting the demands of the healthcare industry. A well-planned functional layout, efficient patient flow, accessibility, safety measures, and a focus on efficiency and sustainability are key elements to consider. By addressing these aspects comprehensively, medical institutions can create an environment that promotes optimal healthcare outcomes and enhances the overall patient experience.

METHODS

The reconstruction of hospitals is a complex process that requires careful planning and execution. The following factors should be considered during the reconstruction process:

1. **Budget:** The first factor to consider is the budget for the reconstruction. The budget should be realistic and take into account all the costs associated with the reconstruction, including materials, labor, and equipment.
2. **Patient needs:** The needs of patients should be a top priority in the reconstruction process. The hospital should be designed to meet the needs of patients and provide them with a comfortable and safe environment.
3. **Medical technology:** The reconstruction process should take into account the latest medical technology and equipment. The hospital should be equipped with the latest technology to ensure that medical professionals can provide quality care to patients.
4. **Safety:** Safety should be a top priority during the reconstruction process. The hospital should be designed to ensure the safety of patients, medical professionals, and visitors.

5. Sustainability: The reconstruction process should take into account sustainability. The hospital should be designed to be energy-efficient and environmentally friendly.

The methods used to gather information for this article on the correct organization of the design solution for the reconstruction of medical institutions involved a comprehensive literature review.

In addition to the literature review, expert interviews were conducted with healthcare professionals and designers involved in the reconstruction of medical institutions. These interviews provided valuable insights into the practical considerations and challenges faced in organizing the design solution for the reconstruction of medical institutions.

Overall, the methodology used in this article aimed to provide a comprehensive and balanced review of the literature on the correct organization of the design solution for the reconstruction of medical institutions, as well as practical insights from experts in the field.

RESULTS

The needs of patients should be at the forefront of the design solution for the reconstructed medical institution. This includes considerations such as accessibility, comfort, privacy, and safety. The design should also take into account the specific needs of different patient populations, such as children, the elderly, and those with disabilities.

Healthcare providers are also an important consideration in the design solution. The layout and design of the medical facility should be optimized to facilitate efficient and effective healthcare delivery. This includes considerations such as the location of medical equipment, the flow of patients and staff, and the design of clinical spaces.

The community is another key stakeholder in the design solution for the reconstructed medical institution. The facility should be designed to meet the needs of the surrounding community, such as providing access to healthcare services and

addressing any local health disparities. The design should also take into account the cultural and social context of the community.

Effective collaboration and communication between stakeholders is critical to the success of the reconstruction project. This includes collaboration between healthcare providers, designers, architects, and other stakeholders involved in the project. Communication should be ongoing and transparent to ensure that all stakeholders have a shared understanding of the project goals and priorities.

The reconstruction of hospitals can have a significant impact on the quality of care provided to patients and the efficiency of medical professionals. By considering the factors discussed above, hospitals can be reconstructed to meet the changing needs of patients and medical professionals.

In summary, the results of the observations review emphasize the importance of considering the needs of patients, healthcare providers, and the community, as well as fostering collaboration and communication between stakeholders in the design solution for the reconstruction of medical institutions.

Enhanced Patient Experience: A well-organized design solution has resulted in an enhanced patient experience within medical institutions. Clear signage, well-defined pathways, and optimized patient flow have reduced patient wait times and minimized confusion. Patients appreciate the ease of navigation and reduced congestion, resulting in increased satisfaction scores. By prioritizing patient experience, medical institutions can foster a positive reputation and attract a broader patient base.

Improved Efficiency: Correctly organizing the design solution has led to improved efficiency within medical institutions. By strategically placing different departments and support services, healthcare providers can streamline workflows and reduce the distance traveled by staff. This optimization of personnel movement has resulted in saved time and increased productivity. In addition, the incorporation of technology, such as electronic medical records and telehealth services, has further

improved efficiency in patient care processes and communication between healthcare providers.

Optimal Use of Space: The design solution has enabled medical institutions to make optimal use of available space. By carefully considering the functional layout and maximizing the use of square footage, institutions can accommodate more patients and services without compromising on comfort or safety. This efficient use of space has allowed institutions to increase their capacity and expand their range of services, ultimately benefiting the local community.

Enhanced Safety and Infection Control: Correct organization of the design solution has resulted in enhanced safety and infection control measures within medical institutions. By incorporating proper ventilation systems, hand hygiene stations, and isolation rooms, the spread of infections has been minimized. Additionally, the inclusion of emergency exits, fire safety measures, and security systems has improved the overall safety of the institution for both patients and staff. These measures have increased patient confidence and trust in the institution's ability to provide a safe environment for their healthcare needs.

Sustainability and Cost Savings: An important result of the correct organization is the focus on sustainability and cost savings within medical institutions. By implementing energy-efficient systems and optimizing operational workflows, institutions have achieved significant cost savings. The reduction in energy consumption and operational costs allows these institutions to allocate their resources more efficiently, leading to improved financial stability and sustainability in the long run.

Overall, the correct organization of the design solution for the reconstruction of medical institutions has resulted in a multitude of positive outcomes. These include enhanced patient experience, improved efficiency, optimal use of space, enhanced safety and infection control, and sustainability with cost savings. By prioritizing these aspects, medical institutions have been able to provide high-quality healthcare services while also meeting the demands of a rapidly evolving healthcare industry.

DISCUSSION

The discussion of this article on the correct organization of the design solution for the reconstruction of medical institutions highlights the implications of the results for the field of healthcare design and provides recommendations for future research.

The findings of the literature review emphasize the importance of taking a holistic approach to the design solution for the reconstructed medical institution. This involves considering the needs of patients, healthcare providers, and the community, as well as fostering collaboration and communication between stakeholders. By doing so, the reconstructed medical institution can provide the best possible care to patients and meet the needs of the surrounding community.

The discussion also highlights the potential challenges of organizing the design solution for the reconstructed medical institution. These challenges may include conflicting priorities between stakeholders, limited resources, and regulatory constraints. To address these challenges, effective communication and collaboration between stakeholders are essential.

Future research should focus on addressing the gaps in knowledge identified in the literature review. For example, further research is needed on the specific design considerations for different patient populations, such as those with mental health conditions, chronic illnesses, or disabilities. Additionally, research should explore the impact of the design solution on patient outcomes, such as patient satisfaction, recovery times, and clinical outcomes.

In conclusion, the discussion emphasizes the importance of taking a comprehensive and collaborative approach to the design solution for the reconstruction of medical institutions. By doing so, the reconstructed medical institution can provide the best possible care to patients and meet the needs of the surrounding community. Further research is needed to enhance our understanding of the specific design considerations for different patient populations and the impact of the design solution on patient outcomes.

In conclusion, the reconstruction of hospitals is an essential process that should be carefully planned and executed. The factors discussed above should be considered during the reconstruction process to ensure that the hospital can meet the needs of patients and medical professionals. By investing in the reconstruction of hospitals, communities can ensure that they have access to quality medical care that meets their needs.

REFERENCES

1. В. В. Федоров, Н. Н. Федорова, Ю. В. Сухарев. Реконструкция зданий, сооружений и городской застройки- Москва: ИНФРА-М, 2019.-226
(V. V. Fedorov, N. N. Fedorova, Yu. V. Sukharev. Reconstruction of buildings, structures and urban development - Moscow: INFRA-M, 2019.-226)
2. S. A. Qodirova, M. T. Abdujabborova. Turar joy va jamoat binolarini loyihalash-Toshkent, 2022-303
(S. A. Qodirova, M. T. Abdujabborova. Design of residential and public buildings-Tashkent, 2022-303)
3. Creasy T.M. The Wellness Clinic: A New Approach to Healthcare Design: master's Thesis. – Nashville: University of Tennessee, 2012.-51
4. Kras I.M.C. Sustainable hospital buildings: master's Thesis. – Amsterdam: Technical University of Delft, 2011.-115