



International Conference on Sustainable Synergies from Buildings to the Urban Scale, SBE16

Towards socially sustainable healthcare facilities – the role of evidence-based design in regeneration of existing hospitals in Serbia

Aleksandra Djukic^a, Jelena Marić^{a,*}

^a *University of Belgrade, Faculty of Architecture, Bulevar kralja Aleksandra 73/2, Belgrade 11000, Serbia*

Abstract

Social sustainability of existing healthcare (HC) facilities in future will depend on their ability to improve quality and design towards user-oriented performance. Evidence based design presents an adequate tool for analyzing existing and future design of HC facilities. Hospitals in Serbia are in a bad condition, and each year less people are choosing to be treated in public hospitals.

The purpose of this paper is to analyze current design problems by evaluating the social sustainability of existing hospital facilities in Serbia and suggest possible guidelines for further research in this area. The biggest healthcare facility in Serbia called Medical Military Academy (MMA) was selected as a case study. A group of key stakeholders consisted of patients, non-medical and medical staff from the MMA hospital were selected to collaborate. Both qualitative and quantitative methods were used. The methodological framework consists of: fundamental literature review, participant observation, extensive interviews, and surveys. Further analyses were conducted in form of quality assessment from the perspective of aforementioned stakeholders, based on specific set of criteria, divided in two main categories: comfort/distribution and safety/humanization. This evaluation is achieved through technical analyses and qualitative surveys using questionnaires. The preliminary findings identified several key problems in existing design of the hospital, regarding both global social sustainability and specific critical areas. This paper presents in-depth analyses and first assessment of existing hospital design of this kind done in Serbia. New model for evaluation social sustainability of HC infrastructure is established. Results of this research will contribute to improving healthcare infrastructure and could present the first step on the path to creating socially sustainable healthcare facilities in Serbia.

© 2017 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of SBE16.

Keywords: Social sustainability; healthcare design; evidence-based design; evaluation; stakeholders; Medical Military Academy

* Corresponding author. Tel.: +381600313155.
E-mail address: Jelena.maric1989@yahoo.com

1. Introduction

According to World Health Organization (WHO) health is not simply the absence of disease, and hospitals have great role in enabling physical, mental and social well-being ¹.

Main problems that initiated this research were overall unsustainability of Belgrade HC facilities, lack of strategies and knowledge base, and no research regarding social sustainability, which lead to significant problems during several attempts of hospital regeneration in Serbia ². Current studies are mainly oriented on evaluation of either economical or environmental aspects of sustainability, so this research will be focused on assessment of social sustainability of Belgrade HC facilities.

During the late XX century HC system in Serbia was at high level of sustainability concerning social security and human dignity, while treatments and health care were accessible for everyone ³. However, in this research we are focusing on current state of existing HC institutions. The out-dated HC infrastructure, inappropriate design, with its non-adaptable and non-maintainable buildings, poor performances and overall inadequate conditions resulted in dissatisfaction of not only the employees, but also the patients and their families. Hospitals in Belgrade are currently unsustainable in social terms, and are in desperate need for regeneration. What should firstly be done in order to create integral strategies for reconstructing HC institutions is to create an inquiry method (model) for HC evaluation, so the most important problems for achieving HC social sustainability could be estimated. The next chapters will portray an attempt to resolve such issues.

Patients well-being should present an imperative in the process of hospital regeneration, but the growth of discontent expressed by patients as well as working staff is crucial problem occurring nowadays ⁴. The physical facilities in which healthcare services are performed play an important role in the healing process. If designed properly, a healthcare interior environment can foster healing, efficient performance, effective actions, safe behavior and positive HC outcomes ⁵. It is proven that hospital design can influence clinical results and staff effectiveness in delivering care ⁴. Today, HC design is driven mostly by empirical research connecting hospital environment to HC outcomes, and it is going towards evidence-based design (EBD) ⁶. That is why the concept for renovation and reconstruction on the terms of EBD of these facilities becomes a popular sphere of research, which is expected to endow both key stakeholders and prevailing healthcare results ⁷.

Sustainability is a widely discussed topic, frequently complex to understand and implement into real projects, particularly when coping with a rather difficult and unique design of HC facilities ⁷. A sustainable structure is a structure that can be easily maintained and can be functional from the environmental, social and economic point of view, in order to comply with the diverse interests and needs of all the stakeholders ⁴. But, we can not refer to hospitals just as buildings; we have to take into consideration their crucial and sensitive nature – being the place of healing. Contemporary HC studies offer new approach in defining HC sustainability that is not bound to environmental issues only. Social sustainability has had significantly less attention in public dialogue, and academic research than economic or environmental aspects although HC institutions are making a focal point on patients' and staffs' contentment ⁸. In that sense the sustainability aspect of HC facilities in this research is concentrated mainly on user satisfaction. Although many research studies and evaluation models have tackled this topic from different aspects, significant limitations and problems are still present and we can not properly cope with satisfying actual needs of hospital users ⁹.

The primordial responsibility for designers of HC development is to think of a venue where the feeling of human dignity could be conserved to its maximum. The design of hospitals should consider the needs and preferences of the patients and staff ⁴; therefore evidence based design (EBD) serves as an adequate tool for analyzing existing and guiding future design of HC facilities. EBD is defined by the Center for health design as the process of basing decisions about the built environment on credible research to achieve the best possible outcomes ¹⁰. It is important to diminish the psychological discontent of patients, the impression of anxiety and uneasiness caused by diseases. Respectability in healthcare is making it more lucrative, more prosperous, more accessible and more successful ¹¹. Evidence-based healthcare architecture defines therapeutic and protective atmosphere for patients and enhances family commitment ⁹. It also promotes efficient employees performance. Such type of design finally boosts the organization's clinical, economic, productivity and cultural contentment ¹². According to Luetzkendorf & David ¹³, sustainable buildings strive to achieve health, comfort and safety of users and neighbors. In order to evaluate quality of Belgrade HC infrastructure, from the social aspect of sustainability, we are focusing mainly on previous

Download English Version:

<https://daneshyari.com/en/article/5745038>

Download Persian Version:

<https://daneshyari.com/article/5745038>

[Daneshyari.com](https://daneshyari.com)