HUMAN FACTORS IN HEALTHCARE ARCHITECTURE: INDICATORS AND PERCEPTIONS

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1. INTRODUCTION

The activities carried out in Healthcare Facilities (EAS) tend to create tension among staff, patients, and visitors. Considering human factors in EAS encompasses the physical and psychological well-being of individuals (Medeiros, 2019). The Supportive Design Theory (SDT) and Evidence-Based Design (EBD) provide guidelines for reducing stress and promoting health in hospital environments. This research aimed to analyze how human factors are addressed in the professional practice of hospital architecture by investigating the application of recognized indicators in the components of SDT (sense of control, social support, and positive distractions) and EBD (natural lighting). The importance of promoting healing in EAS buildings underscores the significance of how these indicators are treated in publications by the Ministry of Health and in building evaluation systems, based on the synthesis of identified indicators.

2. METHODOLOGY

The method involved five stages: (1) administering a questionnaire to architects, engineers, designers working on hospital projects, as well as nurses, doctors, and hospital managers; (2) identifying the most relevant well-being indicators in the Collegiate Board Resolution Nº 50 (RDC 50/2002), which is the Technical Regulation for planning, programming, developing, and evaluating physical projects for healthcare facilities, in the Ambiance Guide of the National Humanization Policy, and in the Technical References of the AQUA-HQE (Alta Qualidade Ambiental - Haute Qualité Environnementale), LEED (Leadership in Energy and Environmental Design), and WELL Building Standard certifications (Fundação Vanzolini, 2011; GBC Brasil, 2022; IWBI, 2020); (3) applying these indicators in a case study, defined as the Hospital das Clínicas of UFMG; (4) analyzing the feasibility of their application; and (5) developing proposals to address the gaps identified in the evaluation of the indicators. The research was approved by the Ethics Committee of the Federal University of Minas Gerais and the Research Network of the Brazilian Hospital Services Company.

3. RESULTS

The questionnaire revealed that natural lighting is the most important component for human well-being. A total of 22 well-being indicators related to TDS components and natural lighting, as part of the EBD, were identified. Of these, 10 were selected for analysis: individual control of artificial lighting, areas for staff to rest and eat, privacy, accessible gardens, areas or gardens for social interaction, comfortable waiting areas, accommodations for overnight stays for companions, interview rooms, quality views, and availability of natural light. The case study involved applying these indicators in an intensive care unit and a clinical inpatient unit of a general hospital. Among the selected indicators, the case study fully met 56%, partially met 28%, and did not meet 17%. It is believed that the main challenges in implementing well-being indicators are related to decisions made during the architectural planning stages of EAS. The research emphasized the importance of a needs program for EAS buildings that goes beyond the requirements established by RDC 50/2002.

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