

UNIVERSITI TEKNOLOGI MARA

**PHYSICAL ASSESSMENT OF
SPECIALIST CLINICS IN PUBLIC
HOSPITALS, MALAYSIA**

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ABSTRACT

Physical environment has greatly impacted the health and well-being of the users; besides, a conducive and positive environment can improve feelings of satisfaction and importantly diminish stress. Although traditionally hospitals are designed primarily to serve inpatients, it has been observed that the trend is now towards increasing the facilities for outpatient services. In Malaysia, the drastic increased of outpatient has made the Ministry of Healthcare (MoH) building and upgrading more Ambulatory centre which houses the Specialist Clinic to cater for this service. Patient and accompanying visitors are key occupants or user whose point of view are crucial in determining the performance of the space in the clinics. The aim of this research is to develop tool to measure environmental qualities standard to inform design for bench marking purposes. Three objectives were specified: Firstly, to ascertain space quality design criteria for physical assessment of specialist clinics; Secondly, to access the level of satisfaction among users based on physical criteria of specialist clinics; Lastly, to evaluate and determine the space performance of specialist clinics based on user satisfaction and physical survey. The study adopted triangulation technique which combined both quantitative and qualitative methods to obtain with more insight as well as rich descriptions of the study. A total of 509 respondents comprises of 195 patients and 314 accompanying visitors from twelve specialist clinics participated which was centred in ophthalmology and orthopaedic clinic. Result from the survey assisted to recognised two case studies for qualitative methods which employed semi-structured interviews, physical inventory, on-site observation, and floor plan analysis, to provide insight of the clinic condition. Eventually, space quality indicator (SQI) were used as the tool to measure and classify the space performance of the respective clinics. This study established eleven parameters i.e. lighting, noise, air quality, safety, space planning, accessibility, wayfinding, seating design, seating configuration, counter, and colour, material & finishes was recognized as space quality parameter (SQP). Findings from user satisfaction highlight patients' socio-demographics and context backgrounds demonstrated to have effects on their satisfaction with the space quality parameters of specialist clinics. There was a significant factor on demographic characteristics i.e. respondent type, gender, age, ethnic, religion, education, clinic (discipline), walking assistance, and reason for coming. On the other hand, six parameters i.e. noise, lighting, air quality, wayfinding, accessibility, and colour, material & finishes demonstrated with significant differences. Patient and accompanying visitor shared similar opinion on the clinic performances thus this study proceeds with single user. Nevertheless, accompanying visitor was more satisfied compared to patient. User responded with sub-optimal satisfaction scores for the clinic space as user was not satisfied with noise parameter, on the other hand, most satisfied with safety parameter. The diagnosis of space condition traced the negatives and positives side of the design aspect. On the other hand, triangulation analyses based on user's survey, diagnosis of space condition, and space performance, determined the conditions of the respective clinics and ultimately measured their performance. Physical Quality Assessment Tool (PhySQAT) acts as a measurable design criterion to ascertain how well a completed building meets its inhabitant's needs and performance targets. Nevertheless, the methodology of this study may perhaps could be ministered and inspire future research area which concern to create better public buildings and most importantly mistakes would not be repeated.

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Healthcare is a broad term commonly used to describe services designed to improve, restore, or maintain the health and well-being of an individual, family, or community. The infrastructure that houses and supports healthcare services is referred to as healthcare facilities, hospitals or clinics. Healthcare facilities are locations where the sick go in order to seek treatment as supplied by specialists and other healthcare professionals. A healthy hospital facility is one that encourages and improves upon the health of its occupants via a physical design that is supportive of the qualities of the environment and the delivery of healthcare that reduces stress and enhances the quality of life (Ulrich, 1991; Green, 1995).

This chapter provides a background context of physical environment and user's satisfaction. Following to this, an introduction is made of the main field of this study, physical environment and user satisfaction. It is followed with the research aims, objectives and research questions for this study. The chapter concludes with an overview of the structure of this thesis.

1.2 BACKGROUND

Hospital is a complex building which houses clinic as one of the infrastructures that supports healthcare services has been referred as healthcare facilities (Green, 1995). The infrastructure includes diagnostic and treatment functions, such as clinic laboratories, imaging, emergency rooms, and surgery: hospitality function, such as food and service and housekeeping, and the fundamental inpatient care. He added that the complexity of the building requires specialized knowledge and expert consultants in the planning and design.