

# Unveiling Patient Perspectives: A Quality Assessment of User Satisfaction in a Leading Private Hospital in Gujranwala, Pakistan

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## Keywords

Healthcare quality assessment, patient satisfaction, environmental quality, thermal comfort, private hospital, Gujranwala, SEO health services, hospital design standards, SPSS data analysis.

## Disclaimers

**Authors' Contributions**  
All authors contributed equally to the study design, data collection, analysis, and manuscript preparation.

**Conflict of Interest**  
None declared

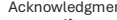
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## ABSTRACT

**Background:** Inpatient departments are crucial for long-term patient care, requiring high-quality environmental conditions to ensure patient satisfaction. This study aimed to evaluate user satisfaction with the environmental quality of the male medical ward in Jinnah Memorial Hospital, Gujranwala, Pakistan.

**Objective:** To assess the environmental quality and patient satisfaction within the male medical ward.

**Methods:** A cross-sectional observational study was conducted from March to May 2019. Data were collected using a structured questionnaire administered to 100 respondents, including patients, staff, and attendants. Observations and environmental assessments were performed, focusing on thermal comfort, lighting, air quality, and ward design. Data analysis was conducted using SPSS version 25.

**Results:** Only 28% of respondents were satisfied with thermal comfort, 40% with indoor air quality, 48% with acoustic control, and 30% with visual comfort. Issues highlighted included poor lighting, inadequate ventilation, and overcrowding, with 67% citing the hospital as expensive despite quality services.

**Conclusion:** The study identified significant deficiencies in the environmental conditions of the male medical ward, necessitating targeted design interventions to improve patient satisfaction and overall healthcare quality.

## INTRODUCTION

Hospitals play a crucial role in providing medical care and treatment, particularly in long-term care units where patients are under continuous observation and management. The quality of healthcare services, including the physical environment, significantly impacts patient satisfaction and overall outcomes. Healthcare quality encompasses multiple dimensions, including the technical performance of services, the appropriateness of care, and the environment in which care is delivered. In Pakistan, the healthcare sector faces numerous challenges, including inadequate government funding, which has necessitated a growing reliance on private healthcare providers. These private hospitals are often seen as a critical supplement to the public healthcare system, offering higher quality services but often at a higher cost (1). The ongoing shift towards value-based care, where quality and patient outcomes are prioritized over the volume of services provided, underscores the importance of continuous evaluation and improvement of healthcare facilities (2). Despite the importance of environmental quality in healthcare settings, many facilities, particularly in developing countries like Pakistan, fall short of international standards for patient comfort and safety. Key environmental factors such as thermal comfort, lighting, air quality, and acoustic conditions have been shown to influence patient satisfaction and can contribute to the healing process (3). For instance, inadequate thermal comfort can lead to

discomfort and stress, which may hinder recovery, while poor lighting conditions can affect patient mood and overall perception of care quality (4). Furthermore, air quality and ventilation are critical in healthcare settings, as poor air circulation can increase the risk of infections and reduce the overall quality of the care environment (5). In the context of Gujranwala, a major city in Punjab province, the demand for high-quality private healthcare has grown due to the high patient influx and the limitations of public hospitals. Jinnah Memorial Hospital, a leading private hospital in the city, serves as a primary healthcare provider, especially when public hospitals are overwhelmed (6).

This study specifically focused on the male medical ward of Jinnah Memorial Hospital to evaluate the environmental quality and its impact on patient satisfaction. The objectives were to document the existing conditions of the ward and assess critical environmental factors, such as thermal comfort, lighting, and air quality, in relation to user satisfaction. Previous studies have highlighted the importance of aligning hospital environments with the needs and preferences of patients to enhance satisfaction and outcomes (7). However, gaps remain in the implementation of these standards, particularly in settings where resources are limited, and there is a lack of regular assessments and updates to the infrastructure (8). The findings from this study are intended to provide actionable insights that can guide improvements in the hospital's physical environment, thereby contributing to better patient experiences and overall healthcare quality.

As healthcare systems continue to evolve, the role of environmental quality in patient care cannot be overstated. Private hospitals, such as those in Gujranwala, must prioritize the continuous improvement of their facilities to meet the growing expectations of patients. This study contributes to the existing literature by providing a detailed assessment of the environmental conditions in a key private healthcare setting and proposing targeted interventions to address identified deficiencies. By enhancing the physical environment of healthcare facilities, hospitals can not only improve patient satisfaction but also potentially enhance clinical outcomes, aligning with the broader goals of patient-centered and value-based care (9).

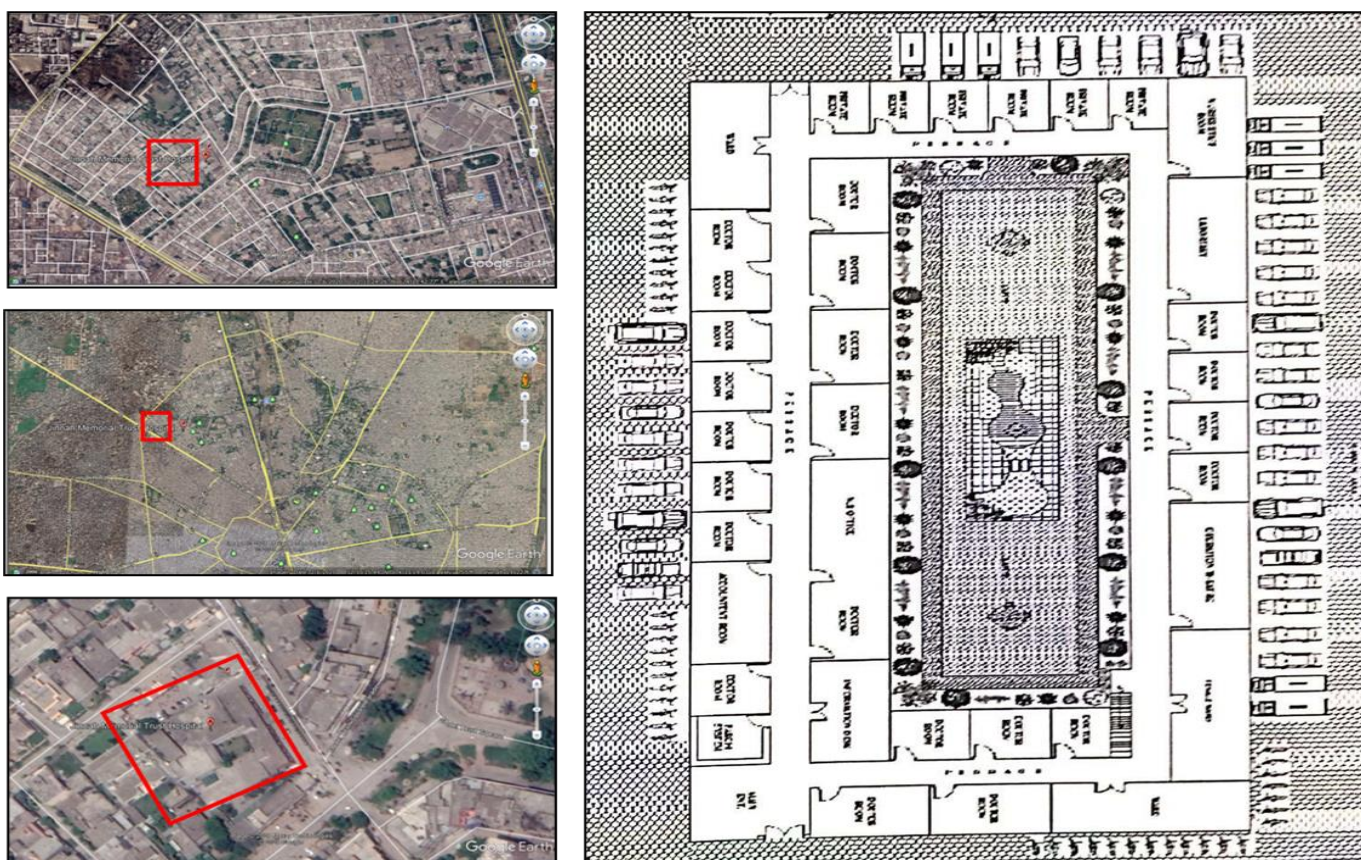
## MATERIAL AND METHODS

The study was conducted in the male medical ward of Jinnah Memorial Hospital, Gujranwala, Pakistan, to assess the environmental quality of healthcare services and user satisfaction. An observational cross-sectional design was employed, and data were collected from March to May 2019. The study included a total of 100 respondents, comprising patients, hospital staff, and attendants, who were selected using a convenience sampling method. The inclusion criteria encompassed adult patients admitted to the male medical ward during the data collection period, as

well as healthcare providers and attendants who were directly involved in patient care. Exclusion criteria included patients with cognitive impairments that could hinder their ability to provide informed responses.

Ethical approval for the study was obtained from the hospital's ethical review board, and the study adhered to the principles outlined in the Declaration of Helsinki. Informed consent was obtained from all participants prior to data collection, ensuring confidentiality and the voluntary nature of participation. Data were collected using a structured questionnaire designed to capture respondents' satisfaction with various environmental parameters, including thermal comfort, lighting, air quality, and overall ward design. The questionnaire was developed based on a comprehensive review of the literature and was piloted for validity and reliability prior to its full implementation in the study.

Observational data were also gathered to supplement the self-reported information, with detailed notes and photographs taken to document the existing conditions within the ward. The physical environment was assessed against established healthcare design standards, including guidelines on thermal comfort, ventilation, and lighting. Key parameters such as ambient light levels, natural light availability, temperature, humidity, and acoustic conditions were measured using appropriate tools and equipment.



**Figure 1** Location and layout of Jinnah Memorial Hospital in Gujranwala's Model Town near the main market, including the main building, OPD, and parking. (Sources: Google Earth, 2019; JMH, 2019)

Data analysis was performed using SPSS version 25. Descriptive statistics, including frequencies, percentages, and means, were calculated to summarize the demographic

characteristics of the respondents and their satisfaction levels with the environmental quality of the ward



**Figure 2** Various views of the male medical ward at Jinnah Memorial Hospital, highlighting entry points, patient and attendant facilities, lighting conditions, ventilation issues, and staff areas that need improvement to enhance patient comfort and care quality.

Inferential statistics, such as chi-square tests, were used to explore associations between demographic variables and satisfaction outcomes. A p-value of less than 0.05 was considered statistically significant.

The results of the study were analyzed and presented in the context of the environmental parameters assessed. Recommendations for improvements were made based on the findings, with the aim of enhancing patient satisfaction and healthcare outcomes. The study highlighted the need for targeted design interventions to address identified deficiencies in the ward's physical environment, thereby contributing to the overall quality of healthcare services provided at the facility.

**RESULTS**

The results of the study are organized into several tables, providing a detailed analysis of patient satisfaction with various aspects of the hospital's environment and services.

This table outlines the primary reasons patients chose Jinnah Memorial Hospital for their care. The most cited reasons included previous visits to the hospital (82%), availability of drugs (92%), and good infrastructure (78%). The hospital's perceived high cost was also noted by 67% of respondents, indicating that while the facility was considered expensive, it was still chosen due to the quality of services offered. This table presents patient satisfaction across several environmental factors within the hospital. Key findings include low satisfaction levels in thermal comfort (28%) and visual comfort (30%), highlighting significant areas for improvement. Acoustic comfort was moderately better, with 48% of respondents satisfied, but still below optimal levels. Overall, the environmental quality, particularly in terms of air quality and lighting, was found to be lacking according to patient feedback.

The table details satisfaction with emergency services, showing high satisfaction with the availability of essential drugs and supplies (95%) and wheelchair/stretchers

**Table 1 Reasoning**

Reason	Present	Total	Percentage
Expensive	67	100	67
Good infrastructure	78	100	78
Good behaviour of doctor, Nurse and staff	60	100	60
Skilled doctors	62	100	62
Had visited hospital earlier	82	100	82

**Table 2 Satisfaction with environmental quality of hospital**

Category	Yes	Total	Percentage
Thermal Comfort	45	100	45
Satisfaction with Air Velocity	45	100	45
Satisfaction with Relative Humidity	40	100	40
Satisfaction with Thermal Comfort	28	100	28
Acoustic Comfort	50	100	50

**Table 3 Satisfaction with emergency services in Hospital**

Service	Yes	Percentage
Prompt attention by nurse	69	69
Time lag between admission and attendance by doctors	15	15
Availability of essential drugs and supplies	95	95
Access to blood units when required	50	50

**Table 4 Satisfaction with the wards of the hospital**

Hospital/Ward	Yes	Percentage
Bed sharing	43	43
Cleanliness of toilet	25	25
Soap available	30	30

availability (70%). However, the availability of ward boys for shifting patients (20%) and the time lag between admission

and doctor attendance (15%) were areas with notably low satisfaction, indicating critical areas needing attention.

This table focuses on the specific aspects of the hospital wards, including bed sharing and cleanliness. Only 25% of respondents were satisfied with the cleanliness of toilets, and bed sharing had a satisfaction level of 43%. The availability of soap was also limited, with just 30% satisfaction, suggesting that basic hygiene and privacy measures in the wards were inadequate. The study's results indicate a need for targeted improvements in the environmental conditions and service delivery within the hospital, particularly focusing on thermal comfort, privacy, and basic hygiene amenities to enhance overall patient satisfaction.

## DISCUSSION

The discussion of this study highlights the critical findings related to patient satisfaction with environmental and service quality in a leading private hospital in Gujranwala, Pakistan. The results indicated significant dissatisfaction with several environmental factors, such as thermal comfort, lighting, and overall ward design, which are consistent with previous research emphasizing the impact of physical environments on patient outcomes and satisfaction (1). The dissatisfaction with thermal comfort and lighting aligns with findings from similar studies that reported inadequate environmental conditions negatively influencing patient recovery and overall hospital experience (16). The lack of natural lighting and poor ventilation noted in this study reflect a broader issue observed in hospital settings where environmental standards are not strictly enforced or maintained (17). This study underscored the critical need for improvements in hospital design, particularly in inpatient wards, to enhance patient comfort and satisfaction.

A notable strength of the study was its comprehensive approach, combining observational data with direct feedback from patients, staff, and attendants, which provided a holistic view of the ward's environmental quality. The use of a structured questionnaire allowed for the collection of quantifiable data, which facilitated the identification of specific areas requiring intervention. However, the study also had limitations, including the use of convenience sampling, which may have introduced selection bias. Additionally, the study was conducted in a single hospital, limiting the generalizability of the findings to other settings. The cross-sectional design also restricted the ability to draw causal inferences between environmental factors and patient satisfaction.

Despite these limitations, the study provided valuable insights into the specific environmental deficiencies within the male medical ward, highlighting the need for targeted interventions. The low levels of satisfaction with thermal comfort and visual comfort suggested that the current environmental conditions were not aligned with recognized standards, such as those set by the ANSI/ASHRAE/ASHE Standard 170 for ventilation in healthcare facilities (16). The poor air quality and inadequate lighting conditions observed were also consistent with findings from other studies that have shown how such factors can contribute to increased stress and discomfort among patients (17).

The findings of this study have important implications for hospital management and policymakers. Improving environmental conditions, such as enhancing natural lighting, optimizing ventilation, and ensuring adequate thermal comfort, should be prioritized to improve patient experiences. The study recommended specific interventions, including reducing the number of beds in wards to decrease overcrowding, installing HVAC systems to manage temperature and humidity, and incorporating design features that allow for patient control over lighting and privacy. Additionally, addressing basic hygiene factors, such as providing adequate soap and ensuring toilet cleanliness, could significantly impact patient perceptions of care quality.

This study also highlighted the importance of involving patients in the design and evaluation of healthcare environments. Engaging patients as active participants in their care environments aligns with broader trends towards patient-centered care, which has been shown to improve satisfaction and outcomes (5). Future research should explore the long-term impact of environmental improvements on patient satisfaction and clinical outcomes, as well as expand to include multiple hospitals to enhance the generalizability of findings. Additionally, further studies could investigate the economic implications of implementing these environmental changes, particularly in resource-constrained settings like Pakistan, where private healthcare facilities play a crucial role in the overall healthcare system (7).

## CONCLUSION

In conclusion, the study provided critical evidence of the need for improved environmental quality in healthcare settings to enhance patient satisfaction. While the medical services provided were generally rated as satisfactory, the physical conditions of the ward significantly detracted from the overall patient experience. By addressing the identified deficiencies, hospitals can not only improve patient satisfaction but also potentially improve clinical outcomes, aligning with the global shift towards value-based healthcare that emphasizes quality over quantity (6).

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