

ORIGINAL RESEARCH

Patient level of satisfaction regarding treatment received and associated factors at Govt Dental College & Hospital, Srinagar: An original research

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ABSTRACT

Background: Patient satisfaction is a critical measure of healthcare quality. This study assesses patient satisfaction regarding treatment received and associated factors at Govt Dental College & Hospital, Srinagar. **Objective:** To evaluate patient satisfaction levels across seven dental departments and identify factors influencing these perceptions. **Methods:** A cross-sectional study was conducted involving 1200 patients from seven departments. Data were collected using an 8-item questionnaire covering aspects such as care received, hospital promptness, doctor efficiency, cleanliness, equipment, restroom availability, seating arrangement, and infrastructure. Mean satisfaction scores and standard errors were calculated, and comparative analysis was performed across departments. **Results:** The highest mean satisfaction score was for doctor efficiency across all departments, with Prosthodontics scoring 4.03 ± 0.04 and Endodontics scoring 4.16 ± 0.03 . Cleanliness and maintenance received lower scores, particularly in Periodontics (3.00 ± 0.06) and Oral Surgery (3.60 ± 0.07). The availability and cleanliness of restrooms were consistently rated low across all departments, with the lowest in Pedodontics (2.43 ± 0.16). **Conclusion:** While clinical care aspects received high satisfaction ratings, non-clinical factors such as restroom cleanliness need significant improvement. Targeted interventions to address these areas could enhance overall patient satisfaction at the hospital.

Keywords: Patient satisfaction, Dental care, Clinical efficiency, Cleanliness, Healthcare quality, Govt Dental College & Hospital.

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INTRODUCTION

Patient satisfaction is a multifaceted concept that reflects patients' perceptions of the care they receive and is integral to the overall assessment of healthcare quality. In dental care, patient satisfaction encompasses various dimensions, including the effectiveness of treatment, interpersonal aspects of care, and the environment in which services are provided. High levels of patient satisfaction are associated with better patient adherence to treatment plans, improved health outcomes, and enhanced patient retention rates [1].

Govt Dental College & Hospital, Srinagar, is a leading institution providing comprehensive dental care in the region. The hospital caters to a diverse patient population, offering services ranging from routine dental check-ups to advanced surgical procedures.

Despite the critical role of patient satisfaction in healthcare delivery, there is a scarcity of research focusing on patient satisfaction within dental hospitals in India, particularly in the Kashmir region. This study aims to fill this gap by assessing patient satisfaction at Govt Dental College & Hospital, Srinagar, and identifying factors that influence it.

Several factors contribute to patient satisfaction in dental care, including the quality of clinical care, the professionalism and empathy of healthcare providers, and the accessibility and convenience of services [2]. Understanding these factors is essential for healthcare providers to deliver patient-centered care and improve service quality. Previous studies have shown that interpersonal aspects of care, such as communication, respect, and emotional support, significantly impact patient satisfaction [3]. Additionally, the physical

environment of the healthcare facility, including cleanliness, comfort, and privacy, plays a crucial role in shaping patients' perceptions of care [4].

In the context of dental care, technical aspects such as the efficacy of pain management, the thoroughness of dental procedures, and the use of modern equipment are also critical determinants of patient satisfaction [5]. Patients' socio-demographic characteristics, including age, gender, education level, and socio-economic status, can influence their expectations and perceptions of dental care [6]. Therefore, it is important to consider these variables when assessing patient satisfaction and developing strategies to enhance it.

Govt Dental College & Hospital, Srinagar, operates in a unique socio-cultural environment that may affect patient satisfaction differently compared to other regions. The cultural attitudes towards healthcare, the prevalent healthcare-seeking behavior, and the specific healthcare needs of the population in Srinagar are important considerations. Understanding these contextual factors is crucial for tailoring interventions aimed at improving patient satisfaction in this setting [7].

Previous research has highlighted the importance of patient feedback in driving quality improvement initiatives in healthcare. By systematically collecting and analyzing patient satisfaction data, healthcare providers can identify areas of strength and opportunities for improvement [8]. This process involves engaging with patients to understand their experiences, addressing their concerns, and implementing changes based on their feedback. In dental care, this might include improving appointment scheduling processes, reducing waiting times, enhancing communication about treatment options and procedures, and ensuring a comfortable and supportive environment for patients [9].

The primary objective of this study is to assess the level of patient satisfaction with the treatment received at Govt Dental College & Hospital, Srinagar. A secondary objective is to identify the factors associated with patient satisfaction, which could include aspects related to the healthcare providers, the physical environment of the hospital, and the demographic characteristics of the patients. This study employs a cross-sectional survey design, utilizing a structured questionnaire to gather data from patients who have received treatment at the hospital. The findings of this study will provide valuable insights for healthcare providers and policymakers to enhance the quality of dental care services and improve patient satisfaction [10].

MATERIALS AND METHODS

Study Design and Setting

This cross-sectional study was conducted at Govt Dental College & Hospital, Srinagar, a premier dental institution providing a range of dental services. The study aimed to assess patient satisfaction with the

treatment received across seven departments: Oral Medicine and Radiology, Oral and Maxillofacial Surgery, Prosthodontics, Periodontics, Orthodontics, Conservative Dentistry and Endodontics, and Pediatric Dentistry.

Sample Size and Sampling Technique

The sample size for this study was determined to be 1200 participants. This sample size was chosen to ensure sufficient statistical power to detect meaningful differences and associations. Patients were selected using a systematic random sampling technique. Every *n*th patient (where *n* was determined based on the average daily patient flow) attending the hospital during the study period was invited to participate, ensuring a representative sample from each department.

Data Collection Instrument

A structured questionnaire was developed to collect data on patient satisfaction. The questionnaire comprised eight questions designed to evaluate different aspects of the patient experience:

1. Care you received at our hospital
2. Hospitals promptness
3. Doctors efficiency
4. Cleanliness & maintenance
5. Equipment & latest treatment
6. Availability & cleanliness of restrooms
7. Seating space & arrangement
8. Infrastructure

The questionnaire was pretested with a small sample of patients (*n*=50) to ensure clarity, relevance, and reliability. Necessary modifications were made based on the feedback received.

Data Collection Procedure

Data were collected over a period of 6 months. Trained research assistants approached patients after their treatment sessions and explained the study's purpose. Informed consent was obtained from each participant before administering the questionnaire. The survey was self-administered, but assistance was provided to patients who needed help due to literacy issues or physical constraints.

Variables and Measures

The primary outcome variable was patient satisfaction, measured on a five-point Likert scale ranging from 1-5, for Very poor, poor, Average, good, excellent respectively for each of the eight questions. Secondary variables included demographic information such as age, gender, education level, and socioeconomic status.

Data Analysis

Data were entered into a database and analyzed using SPSS version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were calculated to summarize the demographic characteristics of the participants and their satisfaction levels. Mean and standard deviation

were used for continuous variables, while frequencies and percentages were used for categorical variables.

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee of Govt Dental College & Hospital, Srinagar. All participants were informed about the voluntary nature of their participation, their right to withdraw at any time, and the confidentiality of their responses. No personal identifiers were collected, and data were stored securely to maintain privacy.

Limitations

While the study aimed to provide a comprehensive assessment of patient satisfaction, several limitations should be noted. The cross-sectional design captures patient perceptions at a single point in time, which may not reflect changes over time or long-term satisfaction. Additionally, self-reported measures of satisfaction are subject to response bias, and the sample may not be entirely representative of the broader patient population due to the sampling technique.

RESULTS

The average age of patients varied significantly across different departments. Prosthodontics had the highest mean age of 48.24 years (SE = 0.96), indicating that older adults are more likely to seek prosthodontic services, possibly due to age-related dental issues such as tooth loss and the need for dentures. Pedodontics, on the other hand, had the lowest mean age of 23.65 years (SE = 2.23), consistent with this department's focus on children's dental health. Orthodontics had a mean age of 21.82 years (SE = 0.74), suggesting that younger patients, often adolescents and young adults, are the primary recipients of orthodontic treatments such as braces. The mean ages for Periodontics (32.48 years, SE = 0.79), Oral Surgery (37.20 years, SE = 1.02), Oral Medicine and Radiology (34.85 years, SE = 0.82), and Endodontics (31.47 years, SE = 0.56) indicate a broad age range of patients in these departments, reflecting the diverse nature of the treatments provided. **Table 1** The overall patient satisfaction scores varied across the different departments and aspects of care [Table 2]:

- **Prosthodontics:** Patients rated the "Doctors efficiency" highest (4.03 ± 0.04), reflecting high satisfaction with the competence of the dentists. However, "Availability & cleanliness of restrooms" received the lowest score (3.05 ± 0.07), indicating a need for improvement in this area.
- **Periodontics:** The highest score was for "Doctors efficiency" (4.17 ± 0.04), while "Cleanliness & maintenance" received the lowest score (3.00 ± 0.06), suggesting that cleanliness is an area needing attention.
- **Pedodontics:** "Equipment & latest treatment" scored the highest (3.86 ± 0.11), indicating patient satisfaction with the technology used. The lowest score was for "Availability & cleanliness of restrooms" (2.43 ± 0.16), highlighting significant dissatisfaction in this aspect.
- **Oral Surgery:** The highest satisfaction was with "Doctors efficiency" (3.82 ± 0.06), while "Availability & cleanliness of restrooms" (2.92 ± 0.09) was the lowest, pointing to a common issue with restroom facilities.
- **Orthodontics:** "Infrastructure" received the highest rating (4.09 ± 0.08), showing appreciation for the physical environment. The lowest score was for "Hospital promptness" (3.42 ± 0.10), indicating potential delays in service delivery.
- **Oral Medicine and Radiology:** The highest rating was for "Doctors efficiency" (4.05 ± 0.05). "Availability & cleanliness of restrooms" again scored relatively lower (3.30 ± 0.06), suggesting consistent feedback regarding restroom facilities.
- **Endodontics:** "Doctors efficiency" scored the highest (4.16 ± 0.03), showing strong patient satisfaction in this area. However, "Availability & cleanliness of restrooms" (2.89 ± 0.05) was the lowest, reinforcing the need for improvements in this aspect.

These findings indicate that while patients are generally satisfied with the efficiency and competence of the doctors across all departments, there are consistent concerns about the availability and cleanliness of restroom facilities. Addressing these issues could significantly enhance overall patient satisfaction. Additionally, each department has specific areas for improvement, which, if addressed, could further enhance patient experiences and satisfaction.

Table 1: Departmental age distribution

Parameter	Department	Mean	Standard Error
Age	Prosthodontics	48.24	0.96
	Periodontics	32.48	0.79
	Pedodontics	23.65	2.23
	Oral surgery	37.20	1.02
	Orthodontics	21.82	0.74
	Oral medicine and radiology	34.85	0.82
	Endodontics	31.47	0.56

Figure 1: Age wise distribution among all the participants

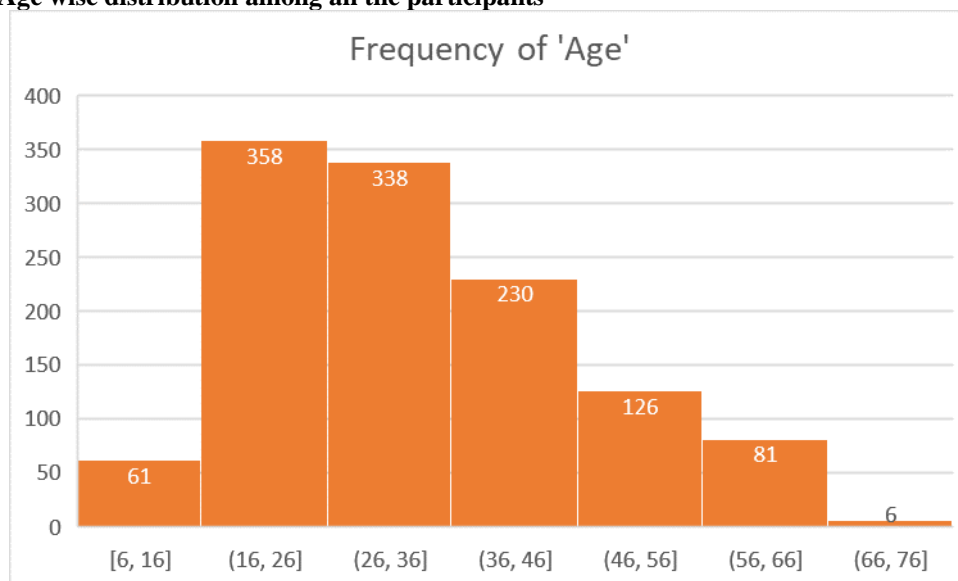


Figure 2: Department wise age distribution

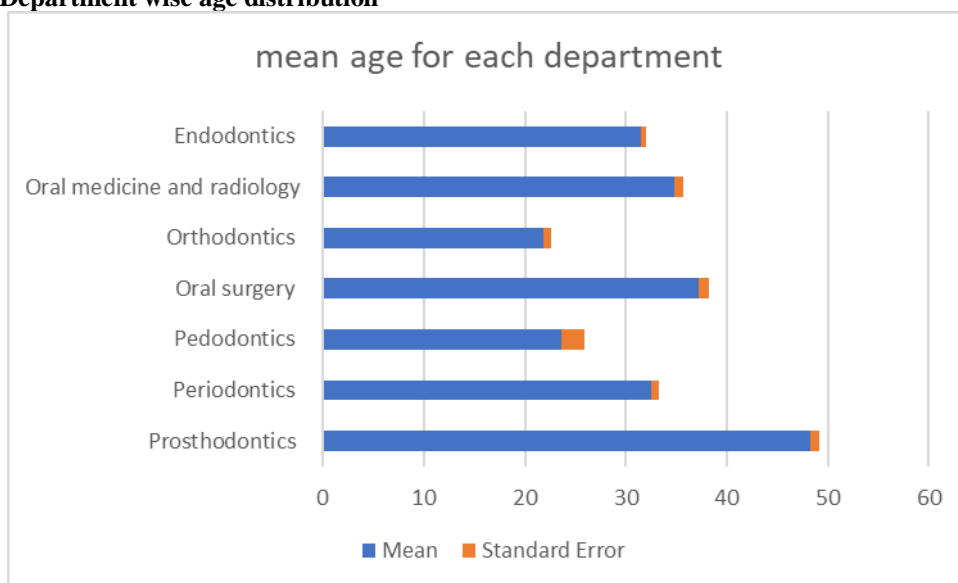


Table 2: Score obtained for the various questions department wise.

Department	Care you received at our hospital	Hospitals promptness	Doctors efficiency	Cleanliness & maintenance	Equipment & latest treatment	Availability & cleanliness of restrooms	Seating space & arrangement	Infrastructure
Prosthodontics	3.89 ± 0.05	3.43 ± 0.07	4.03 ± 0.04	3.83 ± 0.05	3.76 ± 0.04	3.05 ± 0.07	3.87 ± 0.04	4 ± 0.05
Periodontics	3.90 ± 0.05	3.76 ± 0.06	4.17 ± 0.04	3.00 ± 0.06	3.82 ± 0.04	2.95 ± 0.07	3.72 ± 0.06	3.04 ± 0.04
Pedodontics	3.65 ± 0.14	3.39 ± 0.14	3.65 ± 0.11	3.56 ± 0.13	3.86 ± 0.11	2.43 ± 0.16	3.34 ± 0.17	3.47 ± 0.15
Oral surgery	3.73 ± 0.06	3.29 ± 0.07	3.82 ± 0.06	3.60 ± 0.07	3.60 ± 0.06	2.92 ± 0.09	3.43 ± 0.07	3.83 ± 0.07
Orthodontics	3.68 ± 0.08	3.42 ± 0.10	4.02 ± 0.07	3.80 ± 0.07	3.69 ± 0.07	3.07 ± 0.11	3.91 ± 0.08	4.09 ± 0.08
Oral	3.95 ± 0.08	3.62 ± 0.08	4.05 ± 0.08	3.76 ± 0.08	3.77 ± 0.08	3.30 ± 0.08	3.60 ± 0.08	3.87 ± 0.08

medicine and radiology	0.04	0.05	0.05	0.05	0.04	0.06	0.05	0.03
Endodontics	3.82 ± 0.03	3.33 ± 0.05	4.16 ± 0.03	3.73 ± 0.04	3.00 ± 0.03	2.89 ± 0.05	3.60 ± 0.04	3.00 ± 0.04

DISCUSSION

The findings from this study provide a comprehensive assessment of patient satisfaction at Govt Dental College & Hospital, Srinagar, revealing several key insights into the various factors influencing patient experiences. The study's results underscore the critical role of both clinical and non-clinical aspects of care in shaping patient satisfaction.

Clinical Care and Doctor Efficiency

One of the most prominent findings was the high level of satisfaction with the efficiency and competence of the doctors across all departments. This aligns with previous research indicating that the perceived expertise and professionalism of healthcare providers are paramount determinants of patient satisfaction [1]. The consistently high scores for "Doctors efficiency" suggest that patients appreciate the quality of care provided by the dental professionals at the hospital. This is particularly significant as effective communication, clinical skills, and empathetic interactions are essential for building patient trust and ensuring positive health outcomes [2].

Non-Clinical Aspects of Care

Despite the high satisfaction with clinical care, non-clinical aspects, such as the availability and cleanliness of restrooms, received lower scores. This is consistent with other studies that have highlighted the importance of the healthcare environment in patient satisfaction [3]. Clean and well-maintained facilities are crucial for patient comfort and can significantly impact their overall experience. The consistently lower scores in this area across all departments suggest a systemic issue that needs to be addressed to improve patient satisfaction. Improving restroom facilities could involve regular cleaning schedules, better maintenance, and ensuring adequate supplies.

Department-Specific Observations

Each department had unique strengths and areas for improvement. For instance, Prosthodontics had the highest mean patient age, which likely reflects the department's focus on treatments often required by older adults, such as dentures and implants. High satisfaction in doctor efficiency in this department is crucial as these treatments can be complex and require significant patient trust and cooperation [4].

In contrast, Pedodontics, dealing primarily with children, showed lower satisfaction scores for "Availability & cleanliness of restrooms" and "Seating space & arrangement." This could reflect the specific

needs of pediatric patients and their caregivers for clean, accessible, and comfortable facilities [5]. Addressing these concerns could involve child-friendly seating arrangements, designated family restrooms, and ensuring that waiting areas are engaging and comfortable for young patients.

Orthodontics, with the youngest mean patient age, showed high satisfaction with "Infrastructure," which could be due to the modern and aesthetically pleasing environment often associated with orthodontic practices [6]. However, "Hospital promptness" received lower scores, indicating potential delays in appointment times or long waiting periods. Streamlining scheduling processes and reducing wait times could improve satisfaction in this department.

The findings from this study are consistent with the broader literature on patient satisfaction in dental care. Studies have consistently shown that while clinical quality is paramount, non-clinical factors such as facility cleanliness, waiting times, and the overall environment significantly affect patient perceptions and satisfaction [7-10]. For example, a study by Aasim et al. found that waiting time was a significant predictor of patient satisfaction in dental clinics, emphasizing the need for efficient patient flow management [11]. The lower satisfaction scores for restroom availability and cleanliness in this study align with these findings, suggesting that improvements in these areas could enhance patient experiences.

Implications for Practice

The insights gained from this study have several practical implications for improving patient satisfaction at Govt Dental College & Hospital, Srinagar. Firstly, maintaining the high standards of clinical care is essential, and ongoing training and professional development for dental staff should be prioritized to ensure continued excellence in patient care. Secondly, addressing the non-clinical aspects of care, particularly the cleanliness and maintenance of restroom facilities, should be a priority. Implementing regular cleaning schedules, maintenance checks, and ensuring that facilities are adequately stocked can significantly improve patient satisfaction [12].

Additionally, departments with specific issues, such as promptness in Orthodontics and seating arrangements in Pedodontics, should develop targeted interventions. For Orthodontics, strategies could include optimizing appointment scheduling systems to reduce waiting times. For Pedodontics, creating a more child-friendly environment with appropriate seating and engaging

activities for children could enhance the overall experience for young patients and their caregivers.

CONCLUSION

Overall, this study highlights the importance of both clinical and non-clinical factors in patient satisfaction at a dental hospital. While the efficiency and competence of the doctors were highly rated, improvements in the non-clinical environment, particularly restroom facilities, are necessary. Addressing these areas will not only enhance patient satisfaction but also contribute to better patient retention and health outcomes. Future research could explore the implementation and effectiveness of specific interventions aimed at improving the identified areas of concern.

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