

Comparison Of Patient Satisfaction With Government Dental Hospitals Versus Private Dental Clinics: A Mixed-Method Pilot Study

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Abstract:

Introduction: Patient satisfaction is a key measure of healthcare quality because it reflects how patients perceive access to care, communication, clinical competence, affordability, comfort, and the overall service experience. In dentistry, satisfaction is particularly important because treatment commonly involves repeated visits and continued interaction between the dentist and patient. This mixed-method pilot study compared patient satisfaction among patients attending government dental hospitals and private dental clinics.

Methodology: Adult dental patients from government hospital and private clinic settings were included. Quantitative data were obtained using a structured five-point Likert-scale questionnaire covering general satisfaction, technical care, interpersonal behaviour, communication, financial aspects, time spent, and access/comfort. Qualitative analysis was carried out using thematic analysis, where interview transcripts were carefully reviewed, coded, and grouped into relevant themes and sub-themes. The coded data were analysed using NVivo software [version-15] to identify recurring patterns, patient perceptions, and key factors influencing satisfaction with dental care services. Data were summarized using frequencies, percentages, means, and standard deviations. Independent-sample t-test and chi-square test were used for group comparisons, and $p < 0.05$ was considered statistically significant. Qualitative responses were examined using thematic analysis.

Results: Patients attending private clinics reported significantly higher total satisfaction scores than those attending government hospitals (111.10 ± 12.98 vs 86.76 ± 13.47 ; $p < 0.001$). Significant differences were observed in general satisfaction, technical aspects, interpersonal aspects, communication, time spent, and access/comfort, while financial satisfaction did not differ significantly. Chi-square analysis showed a significant relationship between type of facility and satisfaction response pattern ($\chi^2 = 390.59$, $df = 4$, $p < 0.001$). Qualitative findings supported these results, as participants associated private clinics with better hygiene, shorter waiting periods, clearer explanations, and more individualized attention.

Conclusion: Patient satisfaction was higher in private dental clinics than in government dental hospitals. Although government hospitals remain important for affordable dental care, improvements in waiting time, appointment systems, cleanliness, comfort, communication, and patient-centered interaction may enhance satisfaction in public dental settings.

Keywords: Patient satisfaction; Dental care; Government dental hospital; Private dental clinic; Mixed-method study; Healthcare quality.

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I. Introduction

Patient satisfaction is an important indicator of the quality and effectiveness of healthcare services. It reflects the extent to which patients' expectations, needs, and preferences are fulfilled during their interaction with healthcare providers. In dental healthcare, patient satisfaction is especially significant because dental treatment often involves repeated visits, continuous communication, clinical trust, technical competence, and long-term dentist-patient interaction. A satisfied patient is more likely to comply with treatment advice, attend follow-up visits, maintain regular dental check-ups, and recommend the service provider to others.^{1j}

Dental outpatient departments serve as a major point of contact between patients and oral healthcare services. The overall patient experience in such settings is influenced not only by the quality of clinical treatment but also by factors such as accessibility, waiting time, appointment availability, staff behaviour, communication,

affordability, cleanliness, privacy, and comfort of the clinical environment. Therefore, patient satisfaction is considered a multidimensional concept that includes both clinical and non-clinical aspects of care.^{3y4}

Government dental hospitals and private dental clinics differ in their structure, resources, cost of treatment, patient load, and mode of service delivery. Government dental hospitals generally provide affordable or subsidized dental care and are essential for patients who may not be able to access private treatment. However, these facilities may experience overcrowding, longer waiting periods, limited appointment flexibility, and increased workload. In contrast, private dental clinics are often perceived to provide shorter waiting times, better ambience, individualized attention, flexible appointment scheduling, and improved dentist–patient communication, although the cost of treatment may be comparatively higher.^{3y5}

Previous studies have shown that patient satisfaction is strongly influenced by staff attitude, waiting time, cleanliness, affordability, communication, technical quality, and accessibility of services.⁶ Comparative studies between public and private healthcare settings have reported differences in satisfaction levels, with private facilities often receiving higher satisfaction ratings due to perceived better service responsiveness and personalized care.⁷ In dental practice, these differences are important because the patient’s confidence in the dentist, clarity of explanation, perceived competence, and comfort during treatment can significantly affect the overall treatment experience.²

The Patient Satisfaction Questionnaire Short Form (PSQ-18) is a commonly used instrument for assessing satisfaction across multiple domains, including general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with the doctor, and accessibility/convenience. Use of a structured questionnaire helps in identifying specific areas of satisfaction and dissatisfaction and allows comparison between different healthcare settings.¹⁰

Although quantitative satisfaction scores provide measurable evidence, they may not fully explain the reasons behind patient preferences, satisfaction, or dissatisfaction. Therefore, a mixed-method approach is useful because it combines statistical comparison with patients’ personal experiences and opinions.⁸

II. Methodology

Study Design and Setting

A comparative mixed-method pilot study was conducted to assess and compare patient satisfaction regarding dental care services provided at a government dental hospital and private dental clinics. The study was carried out at M.A. Rangoonwala College of Dental Science and Research Centre, Pune, along with various private dental practitioners in Pune. The total duration of the study was two months.

The study included both quantitative and qualitative components. The quantitative component assessed patient satisfaction using the Patient Satisfaction Questionnaire Short Form (PSQ-18)²⁰ while the qualitative component explored patient experiences through in-depth interviews.

Study Population

The study population consisted of general outpatient department patients who visited M.A. Rangoonwala College of Dental Science and Research Centre, Pune, and various private dental clinics in Pune for dental consultation or treatment. Patients fulfilling the eligibility criteria and willing to participate were included in the study after obtaining informed consent.

Inclusion Criteria

Patients were included in the study if they fulfilled the following criteria:

- Patients aged 18 years and above.
- Patients who had received at least one dental consultation or treatment at the selected facility within the past year.
- General OPD patients attending M.A. Rangoonwala College of Dental Science and Research Centre, Pune, or private dental practitioners in Pune.
- Patients willing to provide informed consent.
- Patients able to understand and respond to the questionnaire.

Exclusion Criteria

Patients were excluded from the study if they met any of the following criteria:

- Hospital employees, dental professionals, and dental students, to prevent professional-response bias and ensure that the findings reflected the general public’s perspective.
- Patients with cognitive impairment or communication difficulties.
- Patients unable to communicate effectively due to language barriers.
- Patients unwilling to provide informed consent.
- Questionnaires with inconsistent or largely incomplete responses.

Sample Size and Sampling Technique

As this was a pilot study, a convenience sampling technique was used. Convenience sampling was selected due to feasibility, limited study duration, and accessibility of eligible participants. A total of 30 participants were included in the quantitative analysis. Pilot studies commonly use smaller sample sizes to assess feasibility, refine research tools, and identify practical issues before conducting larger-scale studies.⁹

Quantitative Data Collection Tool

Quantitative data were collected using the Patient Satisfaction Questionnaire Short Form (PSQ-18)¹², adapted for dental outpatient care. The questionnaire assessed patient satisfaction across the following domains:

- General satisfaction
- Technical quality
- Interpersonal aspects
- Communication
- Financial aspects
- Time spent with the doctor
- Accessibility and comfort

The questionnaire also included demographic details such as age, gender, type of service provider, and number of visits. Responses were recorded using a five-point Likert scale ranging from strongly disagree to strongly agree. An overall satisfaction rating was also recorded as highly satisfied, satisfied, neutral, dissatisfied, or strongly dissatisfied.¹⁰

Quantitative Data Collection Procedure

Eligible patients were approached after their dental consultation or treatment. The purpose of the study was explained to them, and informed consent was obtained before participation. Participants completed the questionnaire anonymously to maintain confidentiality. Completed questionnaires were checked for completeness, and incomplete or inconsistent responses were excluded from the final analysis.

Qualitative Component

For the qualitative component of the study, in-depth interviews were conducted with patients who voluntarily provided informed consent. A semi-structured interview guide was used to obtain detailed insights into patients' experiences, expectations, levels of satisfaction and dissatisfaction, and preferences regarding dental care services.

The interview schedule included open-ended questions related to the overall visit experience, reasons for selecting the dental facility, perceived technical quality of treatment, behaviour of dental staff, communication with the dentist, waiting time, cost of treatment, accessibility of services, cleanliness, comfort, and, wherever applicable, comparison between experiences at government dental hospitals and private dental clinics.

Interviews were continued until data saturation was achieved, where no new major themes or responses emerged from the participants. To enhance the credibility and trustworthiness of the findings, data triangulation was applied by changing the interviewers conducting the in-depth interview. The data was collected using voice call recordings and then transcribed verbatim manually.

Statistical Analysis

Quantitative data was entered in MS Excel version 2021. Descriptive and inferential statistics were applied. Frequencies and percentages were calculated for categorical variables such as age group, gender, and satisfaction response categories. Mean and standard deviation were calculated for PSQ-18 domains and individual questionnaire items.

The mean satisfaction scores between government dental hospital patients and private dental clinic patients were compared using an independent-sample t-test. Chi-square test was used to compare satisfaction response distributions between the two groups. A p-value of less than 0.05 was considered statistically significant.

Qualitative responses were analyzed using thematic analysis. The responses were reviewed repeatedly, and meaningful statements were identified and coded. Similar codes were grouped into broader themes such as hygiene and cleanliness, waiting time, communication and explanation, staff behaviour, patient attention, affordability, accessibility, and appointment management. The qualitative data were transcribed, coded, and analysed using NVivo software for qualitative data analysis. Thematic analysis was performed to identify recurring patterns, themes, and sub-themes related to patient satisfaction and perception of dental care services.

III. Analysis

Table I: Baseline characteristics between government hospital and private clinic study sites (n=30)

Age (years)	N (%)
18-20	6 (20.0%)
21-30	7 (23.3%)
31-40	4 (13.3%)
41-50	8 (26.7%)
51-60	5 (16.7%)
61 or above	0 (0.0%)
Gender	
Male	13 (43.3%)
Female	17 (56.7%)

Table II: Comparison of patient satisfaction between government hospital and private clinic according to different domains of PSQ-18

Themes	Private (n=30) Mean ± SD	Government (n=30) Mean ± SD	p-value
General satisfaction	12.93 ± 1.74	10.37 ± 3.18	0.005
Technical aspects	17.27 ± 1.91	14.40 ± 3.22	0.003
Interpersonal aspects	16.13 ± 2.40	12.03 ± 2.13	<0.001
Communication	16.63 ± 2.63	13.20 ± 1.88	<0.001
Finances	12.17 ± 1.05	11.97 ± 0.61	0.415
Time spent with patient	14.97 ± 3.76	12.70 ± 2.97	0.019
Access comfort	21.00 ± 2.46	12.38 ± 1.97	<0.001

The p-value was obtained using an independent-sample t-test. A p-value of less than 0.05 was considered statistically significant.

Table III: Comparison of patient satisfaction between government hospital and private clinic

Question	Service Provider	Mean	Std. Deviation	p-value
Q1. I am satisfied with dental care I received	Government Hospital (n=30)	3.47	1.14	0.081
	Private Clinic (n=30)	4.1	0.99	
Q2. Service provided met my expectations	Government Hospital (n=30)	3.4	1.25	0.006
	Private Clinic (n=30)	4.33	0.71	
Q3. I would recommend the service provider	Government Hospital (n=30)	3.5	1.17	<0.001
	Private Clinic (n=30)	4.5	0.51	
Q4. The dentist examined me thoroughly	Government Hospital (n=30)	3.93	0.74	0.051
	Private Clinic (n=30)	4.37	0.56	
Q5. The dental procedures were performed skillfully	Government Hospital (n=30)	3.27	1.36	0.004
	Private Clinic (n=30)	4.37	0.72	
Q6. The dentist is competent in diagnosing dental problems	Government Hospital (n=30)	3.97	0.67	0.163
	Private Clinic (n=30)	4.27	0.58	
Q7. The equipment used appeared modern and functional	Government Hospital (n=30)	3.23	0.82	<0.001

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	Private Clinic (n=30)	4.27	0.58	
Q8. The dentist treated me with respect	Government Hospital (n=30)	3.23	0.43	<0.001
	Private Clinic (n=30)	4.3	0.65	
Q9. The staff was polite and courteous	Government Hospital (n=30)	3.13	0.35	<0.001
	Private Clinic (n=30)	3.83	0.79	
Q10. I felt comfortable interacting with the dental team	Government Hospital (n=30)	3.2	0.61	<0.001
	Private Clinic (n=30)	3.97	0.49	
Q11. The dentist showed concern and attention during treatment	Government Hospital (n=30)	2.47	1.14	<0.001
	Private Clinic (n=30)	4.03	0.93	
Q12. The dentist clearly explained my dental condition	Government Hospital (n=30)	3.47	0.82	0.048
	Private Clinic (n=30)	4.03	0.93	
Q13. The treatment options were explained properly	Government Hospital (n=30)	3.67	0.61	<0.001
	Private Clinic (n=30)	4.43	0.57	
Q14. I was given the opportunity to ask questions	Government Hospital (n=30)	3.23	0.43	<0.001
	Private Clinic (n=30)	4.07	0.58	
Q15. The dentist listened carefully to my concerns	Government Hospital (n=30)	2.83	0.59	<0.001
	Private Clinic (n=30)	4.1	0.96	
Q16. The cost of treatment was reasonable	Government Hospital (n=30)	4.1	0.31	0.326
	Private Clinic (n=30)	3.9	0.84	
Q17. I was informed clearly about treatment changes	Government Hospital (n=30)	4.13	0.57	0.787
	Private Clinic (n=30)	4.1	0.31	
Q18. The services provided were worth the money paid	Government Hospital (n=30)	3.73	0.74	0.003
	Private Clinic (n=30)	4.17	0.38	
Q19. Treatment charges influenced your decision to continue or stop	Government Hospital (n=30)	4	0	0.032
	Private Clinic (n=30)	3.43	1.38	
Q20. The dentist spent enough time with me	Government Hospital (n=30)	2.67	1.3	<0.001
	Private Clinic (n=30)	3.9	0.88	
Q21. I did not feel rushed during my consultation	Government Hospital (n=30)	2.77	1.22	0.007
	Private Clinic (n=30)	3.83	1.23	
Q22. My waiting time before consultation was reasonable	Government Hospital (n=30)	3.27	0.91	0.096
	Private Clinic (n=30)	3.8	1.21	
Q23. The environment was clean and hygienic	Government Hospital (n=30)	1.17	0.46	<0.001
	Private Clinic (n=30)	4.43	0.5	

Q24. The waiting area was comfortable	Government Hospital (n=30)	2	0	<0.001
	Private Clinic (n=30)	4.3	0.84	
Q25. It was easy to get an appointment	Government Hospital (n=30)	2.83	0.59	<0.001
	Private Clinic (n=30)	3.93	1.26	
Q26. Emergency services were accessible when needed	Government Hospital (n=30)	4	0	0.012
	Private Clinic (n=30)	4.2	0.41	
Q27. Overall, how satisfied are you with the dental services provided?	Government Hospital (n=29)	2.41	1.18	<0.001
	Private Clinic (n=29)	4.14	0.58	
Overall score	Government Hospital	3.23	0.5	<0.001
	Private Clinic	4.11	0.48	

Table IV: Chi-square comparison of overall satisfaction responses between government hospital and private clinic

Satisfaction response	Government Hospital Frequency	Private Clinic Frequency
Strongly Disagree/Dissatisfied	71	20
Disagree/Dissatisfied	106	26
Neutral	259	38
Agree/Satisfied	315	483
Strongly Agree/Highly Satisfied	58	243
Chi-square value	Df	p-value
390.59	4	<0.001

IV. Results

The quantitative analysis included 30 participants. The largest proportion belonged to the 41–50 years age group (26.7%), followed by 21–30 years (23.3%) and 18–20 years (20.0%). Females represented 56.7% of the sample, while males accounted for 43.3%.

Across satisfaction domains, private clinic patients reported higher mean scores than government hospital patients in nearly all areas. Statistically significant differences were found for general satisfaction (12.93 ± 1.74 vs 10.37 ± 3.18 ; $p=0.005$), technical aspects (17.27 ± 1.91 vs 14.40 ± 3.22 ; $p=0.003$), interpersonal aspects (16.13 ± 2.40 vs 12.03 ± 2.13 ; $p<0.001$), communication (16.63 ± 2.63 vs 13.20 ± 1.88 ; $p<0.001$), time spent (14.97 ± 3.76 vs 12.70 ± 2.97 ; $p=0.019$), and access/comfort (21.00 ± 2.46 vs 12.38 ± 1.97 ; $p<0.001$). The finance domain showed no statistically significant difference between groups (12.17 ± 1.05 vs 11.97 ± 0.61 ; $p=0.415$).

The overall satisfaction score was significantly greater among private clinic patients compared with government hospital patients (111.10 ± 12.98 vs 86.76 ± 13.47 ; $p<0.001$). Item-wise analysis also showed higher private clinic scores for expectations, recommendation, procedural skill, modern equipment, respectful behaviour, staff politeness, comfort during interaction, concern and attention, explanation of treatment options, opportunity to ask questions, listening to concerns, perceived value for money, time spent, appointment access, emergency service accessibility, and overall satisfaction.

Chi-square analysis demonstrated a significant association between facility type and satisfaction response distribution ($\chi^2=390.59$, $df=4$, $p<0.001$). Responses from private clinic patients were more frequently distributed in the agree/satisfied and strongly agree/highly satisfied categories, whereas government hospital responses showed relatively more neutral and dissatisfied responses.

V. Qualitative Analysis

The qualitative findings indicated that satisfaction was shaped by the complete treatment experience rather than cost alone. Although government hospitals were recognized as affordable, many participants preferred private clinics because they felt more respected, heard, and involved in treatment-related decisions.

Cleanliness and comfort were frequently mentioned as important reasons for satisfaction. Participants described private clinics as cleaner, better maintained, and more comfortable, suggesting that the physical environment had a strong influence on patient perception.

Waiting time and appointment management were recurring concerns in government hospitals. In contrast, private clinics were appreciated for appointment-based scheduling and shorter waiting periods.

Communication and patient involvement were also prominent themes. Participants felt that dentists in private clinics explained diagnoses and treatment options more clearly and allowed them to ask questions, reflecting a more patient-centered approach.

Government hospitals were not viewed negatively in all respects. Participants valued them for affordability and accessibility; however, they recommended improvements in waiting time, appointment scheduling, communication, and patient interaction.

Table V: Common qualitative themes identified from participant responses

No.	Common Theme	Representative Statement
1	Better hygiene and cleanliness	"The hygiene was properly maintained even in the clinic, even in the waiting room/waiting area."
2	Less waiting time	"Compared to government hospital, the waiting time was less."
3	Better communication and explanation	"They explained it properly, giving me different options, whatever I had to go with, like whatever I choose for myself."
4	Better overall service and patient attention	"I would suggest private clinic only because they give you proper guidance and proper attention to your diagnosis."

VI. Discussion

This mixed-method pilot study found that satisfaction was higher among patients attending private dental clinics than among those attending government dental hospitals. The difference was statistically significant for total satisfaction and for most domains, including general satisfaction, technical aspects, interpersonal behaviour, communication, time spent, and access/comfort. These findings align with previous evidence by Batbaatar E, et al. on Determinants of patient satisfaction showing that service quality, communication, waiting time, cleanliness, and staff behaviour strongly influence patient satisfaction.⁵

The higher satisfaction observed in private clinics may be related to shorter waiting times, better appointment organization, cleaner surroundings, and more individualized dentist–patient interaction. Similar comparative studies by Qadri SS et al. on assessment of patients’ satisfaction with services obtained from a dental healthcare institution have reported higher satisfaction in private healthcare facilities because patients often perceive them as more responsive and service-oriented.⁶

Government hospitals were valued mainly for affordability, which may explain why the finance domain did not show a significant difference. This finding highlights the continuing importance of public dental facilities for patients with financial constraints. However, low cost alone may not produce high satisfaction when patients experience long waiting periods, rushed consultations, limited communication, or inadequate comfort facilities.^{3y7}

The qualitative findings reinforced the quantitative results. Participants repeatedly identified hygiene, reduced waiting time, clear communication, and personal attention as reasons for preferring private clinics. This agreement between numerical findings and patient narratives suggests that satisfaction is multidimensional and depends on both clinical and non-clinical aspects of care.^{8y11}

Since it was a pilot study with a small sample size and convenience sampling, the findings may not be generalizable to all government dental hospitals and private dental clinics. Patient satisfaction was assessed using self-reported responses, which may be influenced by personal expectations, recent experiences, or response bias. The cross-sectional design also limits the ability to assess changes in satisfaction over time or establish causal relationships. In addition, the qualitative component was based on brief responses, and factors such as type of dental treatment, severity of dental condition, socioeconomic status, and treatment outcomes were not analyzed in detail. Therefore, future studies with larger samples, random sampling, multiple centers, and detailed qualitative assessment are recommended.

Nevertheless, the results provide useful preliminary evidence and identify practical areas for improvement in government dental hospitals, particularly appointment scheduling, waiting time reduction, communication skills, patient involvement, cleanliness, and waiting area comfort.

VII. Conclusion

The combined quantitative and qualitative findings showed that patient satisfaction was higher in private dental clinics than in government dental hospitals. Private clinics scored better in general satisfaction, technical quality, interpersonal behaviour, communication, time spent, access, and comfort. Patient narratives supported

these findings, as participants valued private clinics for cleanliness, shorter waiting time, respectful behaviour, clear explanation of treatment options, and personalized care.

Government dental hospitals were appreciated for affordability and accessibility, but satisfaction was affected by long waiting times, delayed appointments, rushed consultations, and comparatively weaker communication. Therefore, while private clinics were preferred for comfort and perceived quality, government hospitals remain essential for affordable dental care. Strengthening appointment systems, reducing waiting time, improving communication, enhancing hygiene, and making the patient experience more comfortable may improve satisfaction in government dental hospitals.

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