



Patient Satisfaction with Orthodontic Treatment

Hiba M. Alkhateeb¹, Mohammed Hamoudi Alsunboli², Sura J. Al-Haidary², Farah Ghanim Agha³

¹College of Dentistry, Al Esraa University, Baghdad, Iraq

²College of Dentistry, Al-Iraqia University, Baghdad, Iraq

³Ministry of Health, Baghdad, Iraq

Abstract

Objectives: To evaluate patients' satisfaction at Baghdad University Teaching Dental Hospital and identify areas of dissatisfaction that could be improved. **Materials and Methods:** A questionnaire was developed based on previous audits and consists of 10 objective questions covering a wide range of topics related to the patient-orthodontist relationship, assessing access and continuity of care. This 10-item questionnaire was used to gather information about patient satisfaction regarding the patient-orthodontist relationship, access, waiting time, facilities, and continuity of care. **Results:** One hundred patients completed the data collection sheet; 68% were female, and 32% were male. Most patients were undergoing fixed orthodontic appliance treatment (n=75, 75%), while the remainder were using removable appliances (n=25, 25%). The audit revealed that patients' satisfaction could be improved in two areas: 'My orthodontist explains what he/she is going to do' (77%) and 'The toilets are accessible and clean' (61%). **Conclusion:** An effective first-visit consultation alone is insufficient to ensure high patient satisfaction. Follow-up consultation visits are recommended to enhance retention of the information provided.

Open Access

Citation: Alkhateeb HM et al. (2026) Patient Satisfaction with Orthodontic Treatment. *Dentistry 3000*. 1:a001 doi:10.5195/d3000.2026.1090

Received: October 24, 2025

Accepted: November 7, 2026

Published: January 12, 2026

Copyright: ©2026 Alkhateeb HM et al. This is an open access article licensed under a Creative Commons Attribution Work 4.0 United States License.

Email: hiba_alkhateeb@esraa.edu.iq

Introduction

Pre-treatment of different CAD/CAM Patient satisfaction has become a popular measure of care quality [1]. Assessing patients' experience of treatment is part of public involvement. In many countries around the world, National Health Service (NHS) staff must maintain standards and improve the quality of patient care. Recently, there has been a move towards Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs) in the NHS. PROMs investigate patients' views of outcomes of their healthcare and PREMs explore patients' perceptions of their experience whilst receiving care [2]. Patient

satisfaction is not only dependent on the results of treatment but also on the journey of treatment and delivery of care, and it can be influenced by several factors [3]. In the UK, it has become mandatory to use PROMs to report on the effectiveness of patient care from the patient's perspective [4]. These measures can identify strengths and weaknesses to drive quality improvement, inform commissioning, and promote choice [1,3]. Healthcare providers must ensure that the service they offer satisfies the patients they serve. Therefore, it was decided to conduct this audit of patient experience with our orthodontic service.

To assess patient satisfaction at Baghdad University Teaching Dental Hospital regarding the patient-orthodontist relationship, access, waiting time, facilities, and continuity of care. To identify areas of dissatisfaction and opportunities for improvement. Standards, guidelines, and evidence base: Gold standards have varied from 80% to 100% satisfaction in previous orthodontic audit literature [5,6]. The standards for this audit were chosen based on previous audits. In keeping with these audits and considering the subjective nature of satisfaction and perceptions, an 80% patient satisfaction level was established as an acceptable gold

standard for this audit, aiming to highlight the main areas of patient dissatisfaction. The following gold standards were set for each question (Figure 1):

1. 80% of patients answered "always" (questions 1-9)
2. 80% of patients answered "yes" to being satisfied with the service (question 10)

This was a prospective questionnaire-based audit conducted between March and April 2024. The sample size was 100, based on previous audits [7,8]. Inclusion criteria included patients who were 25 years old and under, using fixed or removable appliances, and who had at least one appointment following the fitting of the appliances (to ensure they had adequate experience with the department to accurately rate their experience). Patients presenting with hypodontia and craniofacial abnormalities were excluded, as these patients follow a different multi-disciplinary pathway and can undergo prolonged treatment, which is likely to lead to different satisfaction rates.

Material and Methods

The questionnaire was developed based on previous audits consisting of 10 objective questions that cover a wide range of topics relating to the patient-orthodontist relationship, as well as access and continuity of care (Figure 1). Patients attending the teaching dental hospital who were able to complete the questionnaire independently were encouraged to do so, while those who needed assistance were aided by their parent if necessary. Patients were requested to complete their questionnaires in the waiting room to maintain anonymity and then return their completed questionnaires to the reception employee.

Results

One hundred patients completed the data collection sheet; 68% (n=68) of the patients were female and 32% (n=32) were male. Most patients were under fixed appliance treatment (n=75, 75%), while others were under removable appliance (n=25, 25%). Most patients were between the ages of 14-18 (75%), 15% of patients were under the age of 14, and only 10% of patients were above 18 years old.

- The following areas were well reported with over 80% of patients agreeing that:
 - 'My orthodontist treats me with respect' (98%)
 - 'My orthodontist provides me with the information I need' (90%)
 - 'I find it easy to contact my orthodontist to make an appointment' (93%)

- 'I feel my treatment is going well' (89%)
- 'The waiting room is neat and clean' (87%)
- 'The receptionist is friendly' (96%)
- 'The clinical areas are neat and clean' (96%)
- 'Are you satisfied with the orthodontic treatment options introduced by the department?' (97%)
- Patient satisfaction could be improved in the following areas:
 - 'My orthodontist explains what he/she is going to do' (77%)
 - 'The toilets are accessible and clean' (61%)

Discussion

The present study revealed a generally high degree of patient satisfaction, indicating that orthodontic treatment is widely acknowledged as a component of healthcare services in a public hospital. Gender is a significant factor influencing the use of orthodontic treatments; in our study, the sample included a higher proportion of female patients. The high percentage of orthodontic treatment among female patients can be attributed to women valuing physical beauty more than men, as well as their perception that teeth greatly impact facial appearance [9]. However, other studies found no association between gender and patient satisfaction with orthodontic treatment [10]. From the orthodontist's perspective, most of the patients were satisfied with the information provided by the orthodontists. Additionally, the suitability of care, quality of service, and sufficient feedback regarding the status of the procedure provided by the orthodontist had a positive impact on the treatment experience of the patient. These factors were important for patient satisfaction and may be considered imperative for patient adherence to orthodontic treatment [11]. A thorough examination was conducted during the first orthodontic consultation. Nonetheless, study participants reported moderate satisfaction with the information provided during the initial consultation visit. However, the retention of information by orthodontic patients may be questionable. Therefore, comprehensive information—including verbal, written, and visual—should be provided during the first visit, followed by the patient's recall of the consultation. These methods have been found effective in increasing patients' adherence to medical advice and influencing patient satisfaction [12]. On the other hand, a positive patient experience was reported, as patients acknowledged the welcoming environment created by the receptionist. A friendly and welcoming demeanor can

positively impact the patient's perception of healthcare services [13]. The least satisfaction was noted regarding the clinical environment and setting, particularly the bathroom. There is no accessible bathroom for patients in the orthodontic department on the fourth floor; only one accessible bathroom is available for patients on the ground floor. Convenient facilities, such as an accessible bathroom within the waiting area, are crucial in preventing the transmission of infections [14]. Immediate access to this facility could improve infection control measures, including proper waste disposal and hand hygiene.

Furthermore, it eliminates all unnecessary hassle and permits patients to attend to their basic needs without disrupting their dental visit.

Conclusions

- 1- An effective first-visit consultation alone is insufficient to achieve high patient satisfaction. Recall consultation visits are recommended to enhance the retention of the information provided.
- 2- The college administration should maintain continuous review and assessment of the facilities.

References

- [1] Secretary of State for Health. *High quality care for all: NHS next stage review final report*. London, UK: The Stationery Office, 2008.
- [2] Kingsley C, Patel S. Patient-reported outcome measures and patient-reported experience measures. *BJA Education* 2017; 17: 137-144.
- [3] Kravitz RL. Patients' Expectations for Medical Care: An Expanded Formulation Based on Review of the Literature. *Med Care Res Rev* 1996; 53: 3-27.
- [4] Department of Health. Patient Reported Outcome Measures (PROMs) in England, <https://www.gov.uk/government/publications/patient-reported-outcome-measures-proms-in-england-a> (2011).
- [5] Moletsky C. *Application of an Orthodontic Auditing System to a Graduate Orthodontic Clinic: A Pilot Study*. MSc Thesis, Temple University, 2024. Epub ahead of print 2024. DOI: <http://dx.doi.org/10.34944/dspace/10662>.
- [6] Bell D, Layton AJ, Gabbay J. Use of a guideline based questionnaire to audit hospital care of acute asthma. *British medical journal* 1991; 302: 1440-1443.
- [7] Balakrishnan V, Clark J. An Audit to Assess Patient Satisfaction with Orthodontic Treatment received within a Hospital Orthodontic Department. *The British Orthodontic Society Clinical Effectiveness Bulletin*; 18.
- [8] Ismail S, Mokhtar N, Ahmad H. Factors influencing readiness to implement digital audit among internal auditors of the Malaysian public

sector. *Accounting Research Journal* 2024; 37: 540–556.

[9] Kerosuo H, Kerosuo E, Niemi M, et al. The Need for Treatment and Satisfaction with Dental Appearance among Young Finnish Adults with and without a History of Orthodontic Treatment. *Journal of Orofacial Orthopedics / Fortschritte der Kieferorthopädie* 2000; 61: 330–340.

[10] Al-Omri MK, Abu Alhaija ES. Factors affecting patient satisfaction after orthodontic treatment. *The Angle orthodontist* 2006; 76: 422–431.

[11] Sinha PK, Nanda RS, McNeil DW. Perceived orthodontist behaviors that predict patient satisfaction, orthodontist-patient relationship, and patient adherence in orthodontic treatment. *American Journal of Orthodontics and Dentofacial Orthopedics* 1996; 110: 370–377.

[12] Misra S, Daly B, Dunne S, et al. Dentist-patient communication: what do patients and dentists remember following a consultation? Implications for patient compliance. *Patient Preference and Adherence* 2013; 7: 543–549.

[13] Hewitt H, McCloughan L, McKinstry B. Front desk talk: discourse analysis of receptionist-patient interaction. *Br J Gen Pract* 2009; 59: e260.

[14] Balhaddad AA, Alshammari A, AlqADi A, et al. Patient Satisfaction with Dental Services and Associated Factors in a Saudi Dental Institution. *Journal of Clinical & Diagnostic Research* 2018; 12: 36–39.

Patient Experience with Orthodontic Treatment

Thank you for taking time to complete the questionnaire. There are no wrong or right answers. We are interested to find out about your experience in our department.

- Are you a boy? Or a girl?
- How old are you? _____
- Are you wearing train track fixed braces? Or removable braces

Please tick one of the columns for each of the following questions.

Question	Never	Sometimes	always
Orthodontist			
1. My orthodontist treats me with respect			
2. My orthodontist explains what he/she is going to do			
3. My orthodontist provides me with the information I need			
4. I find it easy to contact my orthodontist to make an Appointment			
5. I feel my treatment is going well			
Clinical environment and setting			
6. The waiting room is clean and neat			

7. The toilets are accessible and clean			
8. The receptionist is friendly			
9. The clinical areas are neat and clean			
10. Are you satisfied with the orthodontic treatment options introduced by the department? (please tick on the box)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

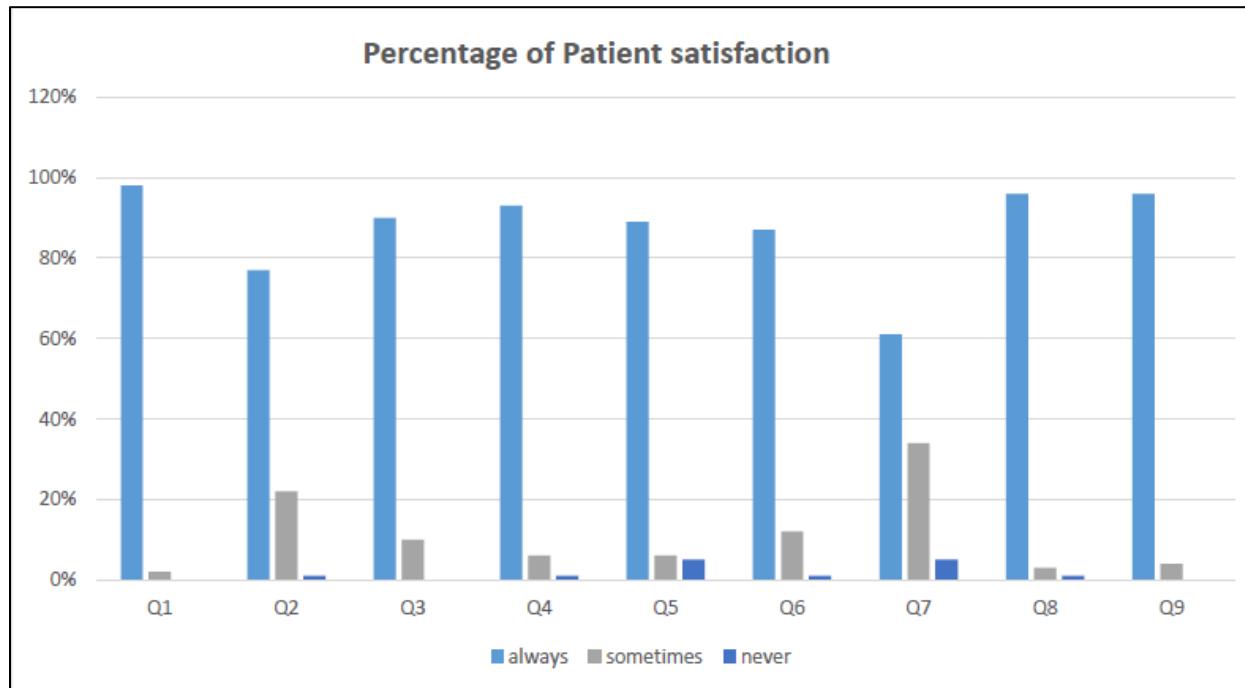


Figure 1. Percentage of patient satisfaction with orthodontic treatment in a teaching Dental Hospital.