

Original article

Patient's satisfaction with orthodontic treatment at King Khalid University, College Of Dentistry, Saudi Arabia

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Abstract:

Introduction: Patient satisfaction is important for ensuring patient's adherence in orthodontic treatment. As teaching institutions, dental college clinics must constantly strive to find a balance between satisfying the needs of the patients and ensuring proper training of the students. The objective of the present study was to assess dental patient's satisfaction with orthodontic treatment and related services at King Khalid University, College of Dentistry (KKU COD), Saudi Arabia.

Materials and methods: A 19 item closed end questionnaire was developed and pretested to assess patient's satisfaction with orthodontic care. The questionnaire items were designed under three domains: 1) Reception and work environment, 2) doctor-patient relationship, and 3) treatment expectations and satisfaction. The study sample consisted of all patients consulting the orthodontic clinics during the time frame of the survey and those who were willing to participate.

Results: A total of 72 patients completed the survey within the time framework. The mean age of the patients was 21.2 ± 8.06 of which males were 69.5% and Females 30.5%. The highest subscale score was found to be with patient's treatment expectations and satisfaction (92.6%) followed by reception and work environment (89.3%) and Dentist-patient relationship (82.7%). The overall patient's satisfaction for orthodontic services among the patients was found to be 87.1%. **Conclusion:** There was a high dental patient's satisfaction with orthodontic services at COD KKU, Saudi Arabia as a teaching institution. The dentist-relationship was found to be key factor in determining dental patient's satisfaction.

Keywords: orthodontic treatment; patient satisfaction; Saudi Arabia

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Introduction

Satisfaction is the contentment one feels when on fulfilment of a desire, need, or expectation¹. Over the past decade, consumer satisfaction has gained widespread recognition as a measure of quality in many public sector services. The service relationships of doctors with patients are now commodities^{2,3}. As the health care industry shifts towards a consumer-oriented approach in the delivery of care dentists are now considered as service providers and dental pa-

tients as customers⁴.

Patient satisfaction is an important and widely accepted measure of health care efficiency⁵. It provides crucial information on what the patient's expectations are and how they perceive the quality of care, which may be different from that of all staff providing that care. Giving the patient an opportunity to voice their opinions about the care they receive can influence the whole quality improvement agenda and provide an opportunity for organizational learning

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and development⁶.

With the advent of information era, information dissemination has assumed unimaginable proportions. Scientific information has now reached the public domain and public is now-a-days well informed about dental care. The dental patient visiting a dentist might harbour certain expectations regarding the provision of oral health services. Satisfaction of dental patients is the ultimate motive of oral health care professionals. Patient satisfaction is important for ensuring patient's adherence in orthodontic treatment^{7,8}.

Provision of oral health services by dental institutions constitutes an important component of the oral health care delivery system in Saudi Arabia. As teaching institutions, dental college clinics must constantly strive to find a balance between meeting the needs of the patients and those of the students. The recent past has witnessed a sudden increase in the number of dental institutions in the Kingdom of Saudi Arabia⁹. Although the universities aim at providing good dental services for its patients and spends a considerable amount of money and human resources, little information on patient satisfaction is available. The private dental practice set-ups collect fees for services offered and are usually more concerned about their patient's satisfaction. The objective of the present study was to assess dental patient's satisfaction with orthodontic services at King Khalid University, College of Dentistry (KKU COD), Saudi Arabia as part of the continuous quality improvement programme.

Materials and methods

The present study was conducted at the Orthodontic Specialty Clinic, College of Dentistry, KKU. A 19 item closed end questionnaire was developed to assess patient's satisfaction with orthodontic care. The

questionnaire items were designed under 3 domains: Reception and work environment, doctor-patient relationship, treatment expectations and satisfaction. The responses for 10 questions had four point Likert scale, 4 questions had dichotomous response and rest had simple multiple choice options. All items were reviewed many times and checked for face validity before subjecting for reliability analysis. The ethical approval was obtained from the Ethical Review Board, KKUCOD (KKUCOD/ERC24/2013).

The study sample consisted of all patients consulting the orthodontic clinics during the time frame of the survey and those who were willing to participate. The questionnaires were distributed at the OPD registration by the clinic receptionist. The patients filled out the questionnaire in the waiting rooms of orthodontics clinics. Each patient was allowed to complete the questionnaire once and was asked to submit the same only at the end of their treatment (final visit in case of multiple appointments). The patient's feedback response was collected for two months from the start date of the survey. Given that there were no independent interviewers and dental staff allowed assisting in the completion of the questionnaire. The collected data was entered into the computer (Microsoft Excel) and further analysed using Smith's Statistical Package Version 2.80.

Results

A total of 72 patients completed the survey within the time framework. The mean age of the patients was 21.2 ± 8.06 of which males were 69.5% and Females 30.5%. Graph 1 shows patient responses as to who suggested orthodontic treatment for them. It can be seen that majority of the patients were either directed by a dentist/dental specialist (n=30) or they were self-motivated with parental suggestion (n=38). Only few patients (n=4) were seeking orthodontic

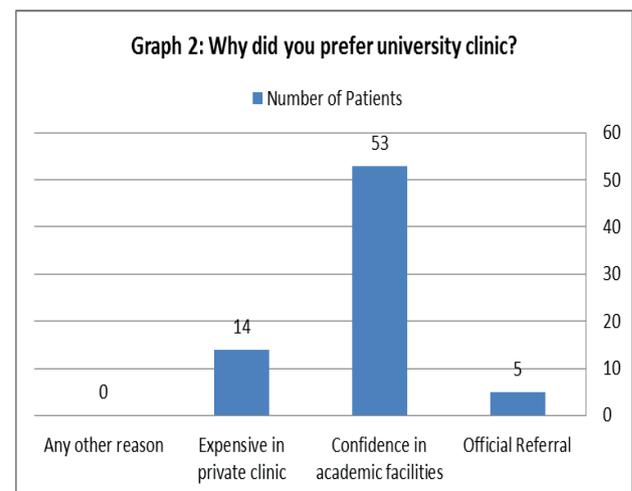
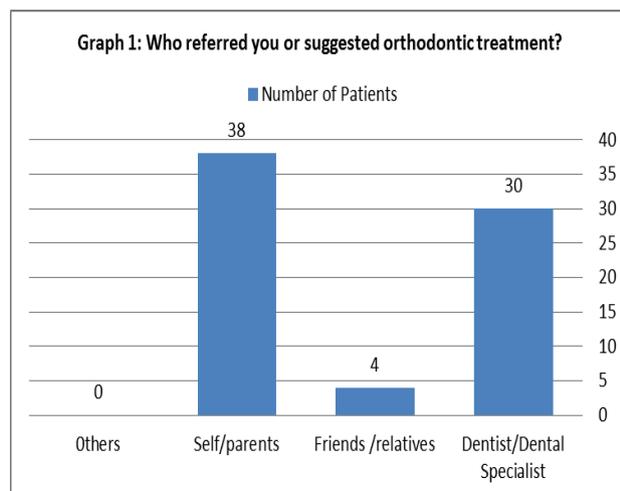


Table 1: Total and sub-scale mean patient's satisfaction scores

Questionnaire Domains	Mean Score	SD	Maximum Score	Satisfaction Per cent	Ranking
Reception and Work Environment (4)	14.2917	1.5873	16	89.3	2
Dentist-Patient Relationship (7)	22.3333	3.2501	27	82.7	3
Treatment Expectations and Satisfaction (6)	14.8194	1.5136	16	92.6	1
Sum Satisfaction Score (17)	51.4	5.0738	59	87.1	

treatment as suggested by their friends/relatives.

Graph 2 shows patient responses for reason to choose university orthodontic clinic for their treatment. The graph clearly indicates that majority of the patients (n=53) had confidence in academic facilities. A very few (n=14) patients chose the university dental clinic as their choice for orthodontic treatments since the same treatment is expensive in private dental clinics. The remaining patients (n=5) were referred from the local dentists.

The internal consistency of the total scale satisfaction questionnaire was satisfactory. Cronbach's alpha was found to be 0.77. Table 1 shows the mean and the standard deviation sub scale scores for patient's satisfaction with orthodontic services. The highest sub scale score was found to be with patient's treatment expectations and satisfaction (92.6%) followed by reception and work environment (89.3%) and Dentist-patient relationship (82.7%). The overall patient's satisfaction for orthodontic services among the patients was found to be 87.1%.

Discussion

Our findings show that majority of the patients chose to get treated here at KKU because they had high confidence in academic facilities. Many factors go into choosing whether private dental clinics or the academic dental clinics are the right one for seeking the treatment. There are some pros and cons to being treated at academic dental clinics. On the other hand there are some undeniable potential benefits: the residents and fellows are well supervised which means that patients could be consulted and examined by several different people. Academic dental clinics also place a strong emphasis on research, and tend to provide new ways of treating patients with cutting edge facilities which highly subsidized or free.

Previous investigations have indicated that the quality of treatment outcomes and overall patient satisfaction are of great importance in influencing a gen-

eral dentist to refer a patient to an orthodontist¹⁰⁻¹³. In our study significant numbers (n=30, 41.6%) of patients were referred by the general dentists, which can be attributed to high quality treatment outcomes at KKU. Almost equal to the number of referred patients (n=38, 52.7%) were those who directly reported to KKU since high confidence they have with academic facilities.

Patient satisfaction after orthodontic treatment is influenced by a number of factors^{7,8,14,15}. The investigations of patient satisfaction after orthodontic treatment have shown a wide range of satisfaction levels¹⁶⁻¹⁸. The use of different questionnaires to assess satisfaction makes comparison with other studies difficult. Our questionnaire tries to measure the level of satisfaction as well as performance of quality attributes related to orthodontic treatment. It was observed in our survey that the highest satisfaction rank is with the patient's expectations of treatment results followed by work environment and reception and dentist-patient relationship. However, the patient's satisfaction is relatively ranked according to total subscale percentage values. Although, the least ranked sub-scale, dentist-patient relationship indicates high degree of satisfaction. This fact is evident with undoubtedly high sum satisfaction score of the survey investigation.

The inclination of all doctors towards patients is usually to meet the desired treatment expectations. The technical competence of the dentist is often cited as a key determinant factor contributing to patient's satisfaction^{19,20}. Our patients were highly satisfied with technical aspects of the treatment. This fact can be attributed to patient-centred treatment procedures done with due consideration to the current principles of ethics and good clinical practice thereby ensuring reliable and best quality services to the public. This also reflects the dedication and enthusiasm of the dental faculty and technical staff towards the same

end. However, very few patients demonstrated certain levels of dissatisfaction with the dentition after orthodontic treatment which might be because of patient compliance or unrealistic expectations.

The patient's first ever experience of health care facility is at the hospital reception. A dental receptionist has responsibilities of courteous communication with patients and effective office administration. Our survey results with orthodontic patients revealed average sense of satisfaction as compared to the other two dimensions. Majority of them not very satisfied with the waiting period and duration for completion of treatment. The dental care delivery system in KKKU is based on scheduled appointments, and dental faculty carry out dental treatment only during the specialty practice sessions. These factors probably lengthen the treatment period compared to the patient's expectations.

A doctor-patient relationship is important in the practice of dentistry and is essential for the delivery of high-quality care in the diagnosis and treatment. The patients are likely to be more positive when effort is made to build good relationships with patients and not where effort is focused on technical excellence alone. The importance of interpersonal factors (personality and communication) for dental patient satisfaction is most frequently cited in the lit-

erature²¹⁻²³. Our results suggest that the patients were relatively less satisfied regarding interaction with the orthodontist. Most of the patients who participated in this study were dissatisfied with the explanation of the procedure during treatment. This may be explained because the procedures are so common and clear, the orthodontists do not see the importance of talking about them and explaining them to their patients. Providing the patient with further explanation of their treatment options should be highlighted to achieve high level of satisfaction with service provided.

In conclusion, there was a high dental patient's satisfaction with orthodontic services at COD KKKU, Saudi Arabia as a teaching institution. The importance of establishing social relationship and verbal communication should be strongly emphasized. To obtain adequate patient feedback in a reasonable time, regular surveys monitoring patient satisfaction are needed to determine the main weakness in various other services provided in King Khalid University. Continuous evaluations of data from such surveys are essential in monitoring the changes in patient satisfaction levels.

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