

Patients' perception toward various dental treatments provided in the internship program

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ABSTRACT

Objectives: To evaluate patients' perception regarding treatment and environment in the interns' clinic at a university dentistry clinic.

Methods: This cross-sectional study was conducted between July 2012 to May 2013 at the College of Dentistry, University of Dammam, Dammam, Kingdom of Saudi Arabia. A self-directed questionnaire was distributed to 220 randomly selected patients, and the response rate was approximately 68%. Patients' were asked regarding dentists' behavior, treatment, and clinical environment along with their demographics, and socioeconomic status.

Results: Out of the 220 randomly selected patients, 150 participated in the study. The average age of a respondent was 32.5 years (± 14.5), 89 of the 150 participants were Saudi nationals. Collectively, 86% were satisfied with the doctors' behavior, and approximately 94% responded that the dentist listens to their concerns. Most (83%) were satisfied with the treatment plan provided by the interns.

Conclusion: The findings in this study showed that more than 80% of the participants were satisfied with the quality of treatment and clinical environment. The dissatisfaction rate was minimal (13%) and for this reason, it is difficult to establish the factors for patients dissatisfaction.

Evaluation of patients' satisfaction and meeting their expectations helps to quantify quality of services provided to them. Identifying patient expectations by obtaining their feedback helps to improve the quality of services provided in the clinics. In an academic institution, it is crucial to evaluate quality of care provided to patients. An increase in the number of

satisfied patients increases patient cooperation, and motivation.¹ Patients' attitude toward health care experience develops over time, and can be influenced by numerous factors.² Overall satisfaction is also influenced by the age of a patient, and when satisfaction was related to communication, young male participants produced a higher satisfaction score than other respondents.^{3,4} Furthermore, a direct relation was found between education level and patients' satisfaction, and low income group consistently produced low satisfaction scores.^{5,6} However, features such as neatness, comfort of seating, magazine selection, and background music of the clinic facilities have been reported to influence patient perceptions.⁷ The College of Dentistry in the University of Dammam facilitates its students by providing them a one year internship program. After finishing course work, students must serve one year in the clinics under the supervision of a faculty member to enhance their skills. The aim of this study was to evaluate patients who visited the interns' clinics regarding treatment they received, and their satisfaction with the treatment, and clinical environment.

Methods. This cross-sectional study was conducted between July 2012 and May 2013 in the dental clinics of the internship program at the College of Dentistry, University of Dammam, Dammam, Kingdom of Saudi Arabia. A self-guided questionnaire was distributed with minimal interns' involvement. A randomly selected sample comprising 220 patients were administered the questionnaire during the study period. Seventy patients decided not to participate in the study, and a total of 150 participants completed the questionnaire. The questionnaire was used to assess patient's satisfaction with the dental intern practitioners at the College of Dentistry, and was also used to identify the socio-demographic characteristics of the patients, such as age, gender, nationality, language, education, and income level. The questionnaires were drafted in English and Arabic in accordance with a 5-point Likert response scale, which was modified in this study to obtain a 4-point scale (strongly agree, agree, disagree, and strongly disagree) to eliminate the uncertainty of using the traditional Likert scale. Questionnaires were anonymous, and the patients were assured that their personal data was considered highly confidential.

The Statistical Package for Social Sciences for Windows version 19 (IBM Corp., Armonk, NY) was used for data entry and analysis. Cross tabulations and multiple bar graphs were used to present descriptive statistics. For inferential statistics, binary and multiple logistic regression were used to test the statistical

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significance. Student t-test was also used to find statistical significance

Results. Two hundred and twenty questionnaires were distributed to patients, however, only 150 patients responded. From this, the study response rate was 68.2%. More than 50% of patients were 26-45 years old, and most (54.7%) were males. It was found that in the intern's clinics, mostly Saudis visited the dental clinics (approximately 59%). Most patients were satisfied with the treatment provided at the intern's clinics. Patients were asked 9 different questions to analyze their satisfaction towards treatment. A significantly ($p=0.016$) high number of patients (either Saudi or non-Saudi) showed their satisfaction towards treatment provided at the intern's clinic. Patients' satisfaction towards treatment tabulated with their age, and high satisfaction was observed under each age group (Table 1). Comparison of patients' age with the level of satisfaction was also significant ($p=0.001$). Other demographic variables, such as gender ($p=0.088$) and patients' education level ($p=0.089$) were also tested for statistical significance with the treatment, but both were insignificantly associated. Patients were also asked 4 questions to evaluate their perception regarding the clinical environment (Figure 1). Almost all patients were satisfied. Binary logistic regression was employed to test the significance between the environment of clinics with gender and nationality of the respondents. A high degree of agreement was found between nationalities of participants with their satisfaction with environment ($p=0.011$), but gender was insignificantly associated ($p=0.57$). Multiple logistic regression was used for testing the significance in association between age ($p=0.341$), education level ($p=0.49$), and income ($p=0.34$) with the environment, but all the results were statistically insignificant. It was found that 87% of the participants, which was found highly significant ($p=0.000$), were

Table 2 - Overall patients' satisfaction in the studied group.

Questions	Strongly agree	Patients' response		
		Agree	Disagree	Strongly disagree
%				
Are you satisfied with the dental care at the intern's clinic	56.8	30.6	11.7	0.9
I would like to have future appointments with the same dentist	55.0	26.1	9.0	9.9
I would recommend my dentist to others	56.8	23.4	10.8	9.0

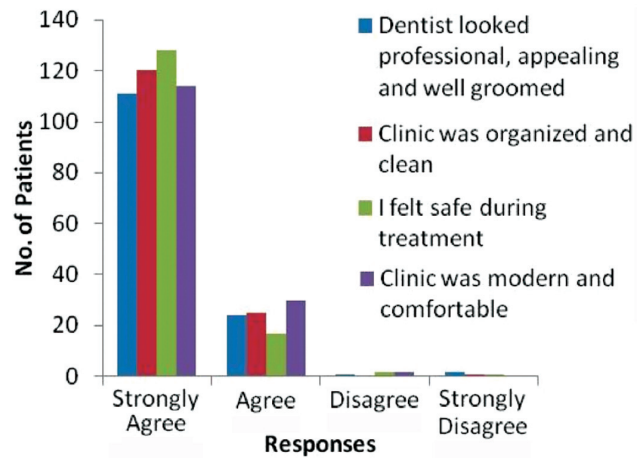


Figure 1 - Evaluation of clinical environment in the studied population.

satisfied with the dental treatment provided at the intern's clinics. Patients were also asked regarding future appointments with the same doctor, and would they recommend their dentist to others. Significantly, a high number of patients agreed to continue treatment with the same doctor ($p=0.000$), and they would recommend their doctor to others ($p=0.000$) (Table 2).

Table 1 - Patients' response regarding satisfaction with treatment according to age among 220 questionnaires.

Questions	18-25	26-35	36-45	Above 45	18-25	26-35	36-45	Above 45
	Agree (%)				Disagree (%)			
I was relaxed and process was pain free	(21.3)	(27.3)	(18.7)	(14.7)	(3.3)	(6.0)	(5.3)	(3.3)
Dentist was gentle and careful with instruments	(24.0)	(31.3)	(21.3)	(15.3)	(0.7)	(1.3)	(2.7)	(2.7)
Dentist was not in hurry and gave enough time	(22.7)	(29.3)	(19.3)	(16.7)	(2.0)	(3.3)	(4.0)	(1.3)
Dentist did maximum possible treatment in one appointment	(19.3)	(28.0)	(18.0)	(14.7)	(5.3)	(5.3)	(6.0)	(2.7)
Dentist did a good quality work	(18.7)	(27.3)	(20.7)	(11.3)	(4.7)	(4.0)	(2.7)	(4.7)
Treatment plan was thorough and reasonable	(19.3)	(28.7)	(18.7)	(16.0)	(4.7)	(4.0)	(4.0)	(2.0)
My chief complaint was sorted out	(22.0)	(28.7)	(18.0)	(16.0)	(2.0)	(2.7)	(5.3)	(2.0)
Dentist was precise and accurate with time	(19.3)	(28.7)	(17.3)	(12.7)	(5.3)	(4.7)	(6.7)	(5.3)
Dentist was flexible with appointment, frequency, timing and rescheduling	(20.0)	(28.0)	(19.3)	(14.0)	(4.7)	(5.3)	(4.7)	(3.3)

Discussion. Both dentists and patients have different perceptions regarding the ideal dentist-patient relationship. From the dentists' perspective, the ideal dentist is technically competent and efficient, whereas patients believe that the ideal behavior of dentists is to provide the desired service. Several previous studies⁸ have focused on evaluating technical competence of dentists, and neglected to investigate the gap between the dentists' and patients' perception of ideal care. John et al⁹ concluded that "simply practicing dentistry with a high degree of technical expertise will not necessarily convince the patient that he has received high quality dental care."

Satisfaction has been perceived as multidimensional to obtain accurate measurements. Consequently, over the past 3 decades, numerous attempts have been made to classify satisfaction components. Five main components had been examined: technical competence, interpersonal factors, convenience, costs, and facilities.^{10,11} Holt¹² used customer surveys to assess the needs and level of satisfaction of the studied candidates, and determined that "care and attention", "pain control," "dentist puts you at ease," and "safety conscious" are important factors. The dentist's personality and communication were cited as crucial to providing satisfactory dental care.¹² In addition, dentists are the most critical factor affecting dental outcomes.¹³ Al-Mobeeriek¹⁴ specifically expressed that dentist's courtesy is the most critical factor in achieving Saudi patient satisfaction.

Empathy has been directly linked to trust, and has been demonstrated to facilitate trust and disclosure, and directly enhance therapeutic efficacy.¹⁵ Lack of trust erodes confidence in the dentist and in the dental profession, leading to limitations in fulfilling patient needs and expectations. Consequently, patients eventually express dissatisfaction and exhibit negative behaviors toward dental practice. Therefore, lack of trust compelled patients to desire a more active role in the decision-making process.¹⁶ Furthermore, a patient's level of confidence in a dentist determines whether that patient regularly seeks healthcare.¹⁷ Several previous studies have focused on other socio-demographic factors, whereas in other studies, it was disregarded.¹⁸

The present study was designed to evaluate patients' satisfaction while understanding treatment at the intern's clinics. A significantly high level of satisfaction was found by the patients' responses, and they showed their trust and level of comfort toward the interns. Several questions were asked from the patients to evaluate their satisfaction towards treatment, doctor's behavior, and clinical environment. Although, we did

not observe significance among all the variables, we found a high level of patients' satisfaction toward the interns and clinics.

There were some limitations to this study. Due to the small sample size it is difficult to conclude that patients were satisfied with the treatment provided, dentists' behavior, and clinics environment. Secondly, participants of the study were those who visited the intern's clinics, and inclusion of patients from students and faculty clinics might have an effect on the results.

In conclusion, the results obtained in this study revealed that most of the sampled patients were satisfied with the patient-intern interactions, treatment management, and clinical environment. The staff of the College of Dentistry is extremely efficient, but requires the implementation of several changes to provide extra opportunities for interns. This study provides a rationale for conducting patients' satisfaction survey in students and specialty clinics, and from this the overall patients' satisfaction towards treatment provided at the dental clinics of the College of Dentistry at the University of Dammam can be evaluated.

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