

Patient satisfaction with the dental services provided by the Dental College of King Saud University

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هدفت هذه الدراسة إلى معرفة مدى رضى المرضى الذين يتلقون العلاج في كلية طب الأسنان التابعة لجامعة الملك سعود عن الخدمات العلاجية المقدمة لهم. تم توزيع ٦٥٠ استبانة على المراجعين لكلية طب الأسنان في الملز والدرعية بواسطة موظف أو موظفة الاستقبال لمدة شهرين. ولقد تضمنت الاستبانة ٢٣ فقرة لمعرفة بعض المعلومات الشخصية عن المريض، ومدى الرضى عن توفر بعض المرافق والخدمات العلاجية، وكذلك لمعرفة هل ينصح المرضى غيرهم بالعلاج في الكلية. وفي الجزء الأخير من الاستبانة طلب من المرضى تقييم العلاج الذي يقدم لهم في الكلية ومقارنته بالعلاج المقدم خارج الكلية. لقد أظهرت النتائج أن السبب الرئيسي لحضور المرضى لتلقي العلاج في الكلية هو الخدمات العلاجية المتفوقة (٧٥%) أما السبب الثاني فقد بدا مختلفا بين الرجال والنساء فقد ذكرت النساء أن سبب مراجعتهم للكلية هو صعوبة تلقي علاج في مكان آخر (٣١%) أما الرجال فقد ذكروا لأن العلاج في الكلية مجاني (٢٧%) . ٦٢% من المرضى جاءوا للعلاج في الكلية بناء على نصيحة من الأصدقاء أو الأقارب . على الأقل ٨٤% من المشاركين في الاستبانة أظهروا رضاهم عن الخدمات والعلاج المقدم في الكلية باستثناء بعض المصاعب في الاتصال هاتفياً بالكلية أو وجود مواقف كافية للسيارات. ٩٨% من المراجعين أظهروا أنهم سيصحبون أصدقائهم وأقاربهم لتلقي العلاج في الكلية. ٨٧% أعطوا درجة ممتاز/ جيد جداً للعلاج المقدم في الكلية. الخلاصة: أظهرت هذه الدراسة رضى معظم المرضى الذين يتلقون العلاج في كلية طب الأسنان التابعة لجامعة الملك سعود عن الخدمات العلاجية المقدمة لهم.

The objective of this study was to measure patients' satisfaction with services and dental care provided by the College of Dentistry of King Saud University. Six hundred and fifty copies of a designed questionnaire were distributed in both Malaz (MUC) and Darraiya (DUC) campuses of the Dental College. The questionnaires were distributed, for two months, to regular patients by the receptionist when the patients arrived for their appointments. Twenty-three items concerning personal data, satisfaction with facilities, services, and perception of care received were included in the survey. Results: 1. The most common reason (75%) for wanting to be a patient at the Dental College was the perceived availability of up-to-date care. 2. Sixty-two percent of the patients indicated that friends or neighbors advised them to go to the Dental College. 3. Patients were significantly dissatisfied with some items such as parking areas facilities, elevators, and getting appointments by phone. 4. Eighty-four percent responded positively to items concerning treatment. For the length of the appointments only 26% responded positively. 5. Ninety-eight percent indicated that they would recommend the Dental College to others seeking dental care. In conclusion, the results of this questionnaire indicated that the majority of the patients who responded were satisfied with the facilities, services and treatment received at the Dental College clinics of King Saud University.

Introduction

The College of Dentistry is an integral part of the collegiate system of King Saud University in Riyadh, Saudi Arabia. With the commencement of the College in 1975, dental education and training of Saudi students was provided at a standard expected to be comparable to those of the American and European dental colleges. Also, the College started to provide dental health care of high quality to patients as treatment and as consultation. The College in Riyadh has a university campus in Malaz area (MUC) for female students and for treating female patients mainly. Another university campus in Darraiya (DUC), was established in 1985 for the exclusive use of male undergraduate students.

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. Patients satisfaction with the dental care they receive is important because it will influence their service utilization pattern.^{1,2} It has been shown that patients who were more satisfied with dental care had better compliance, fewer broken

appointments and less pain and anxiety.³ Also, dentist-patient interactions during dental treatment have been demonstrated to affect patient's compliance with clinical advice and follow-up visits.⁴ Therefore, information on patient's feedback and satisfaction is necessary to properly evaluate the service being given.

Patients' satisfaction has been investigated in many dental colleges in different countries. These studies found that patients attending dental college clinics were in their thirties or forties. The most cited reasons for seeking care in dental colleges being perceptions of high quality service and concern for patients' well-being.⁵ Other studies found the most important reason for attending the dental college to be low cost.^{6,7} Parking problems and length of appointments were problems most commonly encountered in receiving care at dental college clinics.⁷

The objective of this study therefore was to measure patients' satisfaction with facilities, services and treatment received at the Dental College in King Saud University. The results raised issues concerning the importance and function of dental college clinics for the future of dental education in the Kingdom.

Materials and Methods

Based on information from previous studies,^{6,7} a 23-item patient satisfaction questionnaire was designed. The questionnaire was used to obtain data from patients who were then currently

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receiving care in the Dental College. To ensure validity and reliability of the questionnaire items and to test patients' response, a pilot survey was conducted. No obvious problem was found and the respondents followed directions well. Six hundred and fifty copies of the questionnaire were distributed for both female patients at MUC and male patients at DUC campuses over a two-month period (September and October of 2001). The questionnaires were distributed by receptionists to regular patients, when they arrived for their appointments. Only patients who were 18 years or older were included.

The first part of the questionnaire was on personal data (age, sex and marital status), reasons for seeking care at the Dental College, source of referral, and length of time patients had been receiving treatment at the College (Figure 1).

1. Sex: Female ----- Male -----
2. Age: -----
3. Marital status: Married ----- Single -----
4. What is the reason for wanting to be a patient at the dental school 1. low cost 2. up-to-date-care 3. close to home 4. difficult getting care elsewhere 5. other
5. How did you decided to come to the dental school 1. Advice of friend, or relative 2. Referral by dentist or physician
6. How long have you been receiving treatment at this school? 1. <6 month 2. 6 months-1 year 3. 1-2 years 4. 2-3 years 5. >3 years

Fig. 1. Patient satisfaction questionnaire (Part 1).

In the second part of the questionnaire there were 13 items concerning satisfaction with facilities, (items 1-6) and dental care (items 7-13), provided by the Dental College. The responses were based on a 5-point rating scale (Table 1). Patients were asked to check the responses that most closely reflected their experience. In the third part of the questionnaire, patients were asked whom they thought was the most important person in the Dental College, whether patients would recommend the Dental College to a friend or others seeking dental care. Finally, patients were asked to rate the quality of care they received, and to compare the quality of care received at the College to the dental care they might have received elsewhere. Comments and recommendations were welcomed at the end of the questionnaire.

The data collected were entered into a computer. Statistical Package for Social Science (SPSS vr.10) was utilized to calculate the descriptive statistics and statistical tests. Chi-square test was used to find out the significant differences between the responses.

Table 1. Patients' satisfaction questionnaire items (Part 2).

Questionnaire item	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
1. The waiting rooms are clean and comfortable					
2. There are enough and clean toilets					
3. There are enough numbers of elevators					
4. There are enough parking spaces available					
5. Receptionist always available, I am treated courteously					
6. It is easy to call the college by phone to get appointment					
7. Because of long time required for dental appointment, I have trouble getting off from work for the appointment					
8. I feel the students have the best interest at heart					
9. I feel the instructors have the best interest at heart					
10. I feel comfortable asking questions about my treatment					
11. I am satisfied with the progress of my treatment					
12. The students and faculty include me in decisions about my dental needs					
13. I am comfortable with the infection control measures to protect me from the spread of the infectious diseases					

Results

A total of 650 questionnaire papers were distributed of which 534 were returned for a

response rate of 82%. The response rate in MUC was higher (87%) than that of DUC (79%). Of the combined 306 females and 238 males who responded respectively to the questionnaire items, 48% of them were married and 52% were single. The age of the respondees is presented in Figure 2. Thirty-eight percent of the respondees had been in treatment in the College for less than one year, 22% for 1-2 years and 40% for more than 2 years.

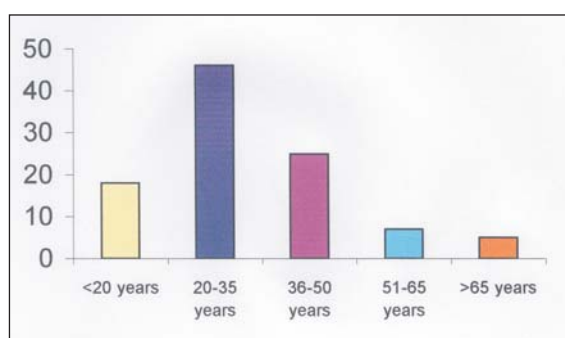


Fig. 2. Age of respondents

As shown in Table 2, the most reported reason for wanting to be a patient at the Dental College was the perceived up-to-date care available (75%) with no significant difference between MUC and DUC. The second most common reason given by the MUC respondents was the difficulty of receiving care elsewhere (31%) while, the second most common reason at DUC was the cost-free treatment (27%).

Table 2. Reasons for wanting to be a patient at the dental college.

Reason	MUC		DUC		MUC/DUC %	"P" Value
	N	%	N	%		
Close to my home	12	9%	29	19%	14%	0.012*
Difficult to receive care elsewhere	42	31%	30	20%	25%	0.031*
Up-to-date care	104	77%	111	74%	75%	N.S.
Free treatment	21	16%	41	27%	22%	0.016*
Others	7	7%	16	11%	8%	N.S.

*P-value<0.05; N.S.=not significant (More than one answer is allowed.)

Sixty-two percent of all respondents mentioned that they decided to come to the Dental College because of advice from friends or relatives. Only 15% were referred from physicians or other clinics.

Thirty-five percent mentioned other reasons for why they decided to come to the Dental College such as being employees or students in the university and they preferred to utilize the services provided by the university.

Table 3 reports the percentage of positive responses for items covering satisfaction with facilities. From the combined categories of strongly agree and agree, 87% and 80% responded positively for comfortable waiting room and availability of receptionists respectively, with no significant difference between both campuses. However, participants seemed significantly dissatisfied with availability of parking spaces especially in MUC, and getting appointment by phone. Also, male patients were significantly dissatisfied with DUC elevators.

Table 3. Positive responses (strongly agree and agree) on items concerning satisfaction with facilities.

Reason	MUC		DUC		MUC/DUC %	"P" Value
	N	%	N	%		
The waiting rooms are clean and comfortable	119	88%	128	85%	87%	N.S.
Enough and clean toilets	109	79%	119	78%	78%	N.S.
Enough numbers of elevators	96	71%	70	47%	5	8 % .000*
Enough parking spaces available	32	24%	83	55%	40%	.000*
Receptionist always available, I am treated courteously	110	81%	117	78%	80%	N.S.
It is easy to call the college by phone to get appointment.	21	16%	35	23%	20%	N.S.

* Strongly agree = 5; agree = 4

Table 4 shows responses on satisfaction with dental care. Positive responses to items concerning issues related to treatment was 84% to 92% except for the length of the appointments which was worse in DUC. While 90% were satisfied with the infection control measures, 98% indicated that they would recommend the Dental College to others seeking dental care and 87% of the respondents rated the quality of care received as excellent or very good .

Table 4. Positive responses (strongly agree and agree) on Items covering satisfaction with dental care.

Satisfaction items	MUC		DUC		MUC/DUC %	"P" Value
	N	%	N	%		
Because of long time required for dental visits, I have trouble getting off from work for the appointment 0.000*	49	36%	26	17%	2	6 %
I feel the students have my best interest at heart	121	90%	142	95%	92%	N.S.
I feel the instructors have my best interest at heart	118	87%	138	91%	90%	N.S.
I feel comfortable asking questions about the treatment	108	80%	131	87%	84%	N.S.
I am satisfied with the progress of my treatment 0.026*	109	81%	135	90%	8	6 %
The students and faculty include me in decisions about my dental need	100	74%	116	87%	81%	N.S.
I am comfortable with infection control measures	121	90%	136	91%	90%	N.S.
I would rate the quality of care I received at the college as excellent/very good	113	83%	136	91%	87%	N.S.
I compare the quality of care received at the to dental college care received elsewhere as much better/better	119	88%	121	79%	84%	N.S.
In this dental clinic the most important person is the patient	101	75%	111	74%	74%	N.S.
I would recommend the dental college to a friend or others seek dental care.	133	99	147	98%	98%	N.S.

Most of the general comments were positive. Negative comments were directed against the too long appointments especially with students, waiting too long to get appointments with the specialists, and difficulty in getting appointments with primary care through the phones.

Discussion

Measures of patient satisfaction with dental care provide useful information to understand and predict patient's behavior, and to evaluate the dental care providers and services. This study employed a self-administered questionnaire that required less than five minutes to be completed and which had been shown to be an efficient and effective tool for collecting information. Items and factors analysis had been previously carried out and their results supported the construction of the questionnaire.⁸

This study achieved a response rate (87%) from female respondents (MUC) because of personal follow-up by the investigator and the cooperativeness of the receptionists in

distributing and collecting the questionnaires on the spot. As there was no direct contact with male patients, the response rate was lower for DUC (79%).

The primary reason for patients coming to the Dental College in this study was the availability of up-to-date care (75%) which was contrary to the results of other studies, Damiano & Warren,⁶ Lafont and others⁷ who found that low cost was the most important reason for coming to the Dental College followed by up-to-date care. In Saudi Arabia, patients are eligible for free medical and dental treatment from all governmental hospitals including the medical and dental colleges. Therefore, up-to-date care may be an important factor in selecting the College for the dental care. Although females indicated difficulty in receiving treatment elsewhere as their second reason for selecting the Dental College, it was not significant from the males' second reason, which was the low cost.

Similar to the finding of other studies, the greatest percentage of the respondents indicated referral by friend or relative. However, the

percentage in this study (62%) was higher than that reported by Damino & Warren⁶ (38%) and by Lafont et al.⁷(45%), respectively.

It was suggested by Wunder⁸ that facilities might affect patient's satisfaction, for example, the importance of adequate parking facilities which the author discussed. In this study, patients were dissatisfied with the parking facilities which was also a finding by others.⁷ Enough elevators and getting appointments by phone were also other problems reported by patients in this study.

Similarities in respondents satisfaction with issues related to treatment were found with other studies. Lafont⁷ found that 87% of the respondents were satisfied with the progress of their treatment and 85% felt the treatment compared favorably to care received elsewhere. Our results showed that 86% were satisfied with the progress of their treatment and 84% felt the care at the Dental College compared favorably to care received elsewhere.

It is possible that satisfaction with treatment could be affected by perception of cleanliness. Boswell¹⁰ suggested that if patients were concerned about asepsis, this might hamper confidence in the office. In our study, 90% of the respondents felt comfortable with the cautions taken to protect them from the spread of infectious disease.

There were four items in Table 4 on satisfaction with facilities and dental care in which scores of females' respondents differed significantly from those of males' respondents. First, both males and females respondents were dissatisfied with the length of the appointments, which might delay them from their work. However, males were significantly more dissatisfied than females. This dissatisfaction could be attributed to engagements of male patients with jobs more than females. Second, males were less satisfied with availability of elevators than females. The large number of patients attending DUC clinics (which include university staff clinics and postgraduate clinics, in addition to student and intern clinics) made the elevators busy most of the times. Third, in MUC campus fewer patients indicated satisfaction with the parking accommodations than in DUC because MUC is located in the center of Riyadh, which is a busy area and which included other governmental institutions.

Finally, males were significantly more satisfied than females in the progress of their treatments.

Putting in consideration the long appointments and transportation problems for females, they would be more concerned to finish their treatments.

This survey provided a means of assessing satisfaction of the patients currently receiving treatment in the Dental College. The results could facilitate focusing on patient complaints and attending to the concerns of dissatisfied patients. The comments and suggestions also provided useful information about issues important to patients and ways to address them.

Given the high costs of educating future dentists and the increasingly competitive environment in which dental colleges operate, the role which dental colleges play as service providers needs to be carefully considered. Future studies may be needed to compare patients' satisfaction in the Dental College with other dental care providers.

Conclusions

1. The results of this questionnaire indicated that the majority of attending patients were satisfied with the facilities, services and treatment received at the Dental College clinics except for some items concerning facilities such as parking lots, elevators and getting appointments by phone.
2. The information obtained from the survey was useful in determining patients' perception of their treatment and establishing new strategies for improvements to patient care services.

References

1. Murray BP, Wiese HJ. Satisfaction with care and utilization of dental services at neighborhood health center. *J Pub Health Dent* 1975; 35:170-176.
2. Firestein SK. Patient anxiety and dental practice. *J Am Dent Assoc* 1976; 93:1180-1187.
3. Handleman SL, Fan-Hsu J, Proskin HM. Patient satisfaction in four types of dental practice. *J Am Dent Assoc* 1990; 121:624-630.
4. Gouchman DS. Traumatic encounter, self-concept and perceived vulnerability to dental problem. *J Pub Health Dent* 1977; 37:95-98.
5. Doxsee FR, Lorencki SF. Attracting and retaining dental school clinic patients. *J Dent Educ* 1978; 42(5): 257-259.
6. Damano P, Warren JA. A profile of patients in 6 dental school clinics and implications for the future. *J Dent*

- Educ 1995; 59:1084-1090.
7. Lafont BE, Gardiner DM, Hochstedler J. Patient satisfaction in a dental school. Eur J Dent Educ 1999; 3:109-116.
 8. Wunder G. Things your most satisfied patients won't tell you. J Am Dent Assoc 1992;123:129-132.
 9. Golletz D, Milgrom P, Mancl L. Dental care satisfaction: The reliability and validity of DSQ in low-income population. J Pub Health Dent 1995; 55:210-217.
 10. Boswell S. The patient's perspective. Tex Dent J 1994;

111:30-31.

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