

Original Article

Evaluation of patient satisfaction with Dental health care services - A cross-sectional study

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ABSTRACT:

Background: Patient satisfaction in health care describes the degree to which patient's need "meet their expectations and provide an acceptable standard of care". Therefore, their opinion should be incorporated to understand factors affecting patient's satisfaction with the healthcare setting. It is difficult for the dentists to provide optimum satisfaction to patients receiving dental care with different treatment needs. A study aiming to evaluate the patient's satisfaction receiving dental treatment in Department of Dentistry, General Hospital Bharuch was planned. **Method:** A cross-sectional observational study from September to November, 2017 was conducted. A self-administered printed questionnaire drafted in English / Gujarati was provided to 225 patients on completion of their dental treatment. 13 close ended questions were included to determine the patient's satisfaction. Descriptive Statistical analysis was used to describe parameters of questionnaire. Chi-square test was used to find significant association between parameters and p-value <0.05 was considered statistically significant. **Results:** 74.3 % of the participants were satisfied with dentist-patient communication. Positive response (80 %) by patients was obtained where they were able to get appointment as per their suitability and were informed in advance by department if there were any changes. 168 (84 %) patients responded that the waiting area was hygienic. 137 (68.5 %) patients assured that their arrival was intimated to respective dentist by supporting staff and that they were taken into operatory for treatment within 10 minutes of arrival. Participants said that they were informed about the delay from their allotted appointment schedule with reasons, hence a better compliance (79 %) were obtained from them. **Conclusions:** This cross-sectional study indicated that with proper communication positive response by participants over satisfaction was obtained even due to various challenges posed by work place or treatment constraints.

Key words: Patient's Satisfaction, Rural Area Patients, Dental Services Assessment, Quality of Care.

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INTRODUCTION

The economy is largely based on customers. The marketplace has become service oriented and quality of service, regardless of the service, is central theme of any business. This is the reason most organizations concentrate on user satisfaction be it consumer or patient¹. Research in the health care management field is concerned with quality assurance or the continuous quality improvement aspects of service to promote quality². Depending on the information needed, data collection methods includes case reviews, clinical examination, evaluation of the health care setting, and measurement of patient satisfaction through questionnaires³. Patient satisfaction in health care describes the degree to which patient's need "meet their expectations and provide an acceptable standard of care". However, what patients want

from the services may differ from what the provider thinks is best for them. Therefore, their opinion should be incorporated to provide a holistic view in enhancing the understanding of the factors affecting patient's satisfaction with the healthcare setting. So a study aiming to evaluate the patient's satisfaction receiving dental treatment in Department of Dentistry, General Hospital Bharuch was planned. The objective of this study emphasized on assessment of the quality of dental care provided and to improve upon the factors where negative feedback was received. This will ensure a positive impact on patient's satisfaction.

METHODS

The current cross-sectional observational study was conducted at the Department of Dentistry, General

Hospital Bharuch which is a tertiary health care institute providing service to the people of Bharuch and nearby rural areas during September to November, 2017.

INCLUSION CRITERIA

- All the patients on completion of dental treatment at the Department of Dentistry.
- Willing to give informed consent

EXCLUSION CRITERIA

- Patients who refused to participate in this study,
- Minor and dependent patients,
- Patients with disabilities,
- Pre and Post radiation therapy patients requiring dental treatment and
- Patients who did not finish their treatment.

The sample size for this study was 200. However, 225 questionnaires were distributed in order to accommodate incomplete or inadequately filled questionnaire.

The questionnaire was drafted in English and local language Gujarati. The preliminary draft was designed based on guidelines from expert's opinion, who also evaluated face and content validity of the questionnaire. A self-administered printed questionnaire was provided to the patients by the nursing staff on completion of their dental treatment. The study duration was from September to November, 2017 and consecutive sampling method was used. The first page of the questionnaire informed participants about the aim and objectives of the study and assured confidentiality of the data provided.

It consisted of questions on demographic data(2); Dentist-Patient relation(2); Appointment(3); Facilities(2); Patient waiting time(3) and Quality of treatment(1) thus forming a total of 13 questions. It has a 4-point response scale ranging from 1(never) to 4(always).

STATISTICAL ANALYSIS

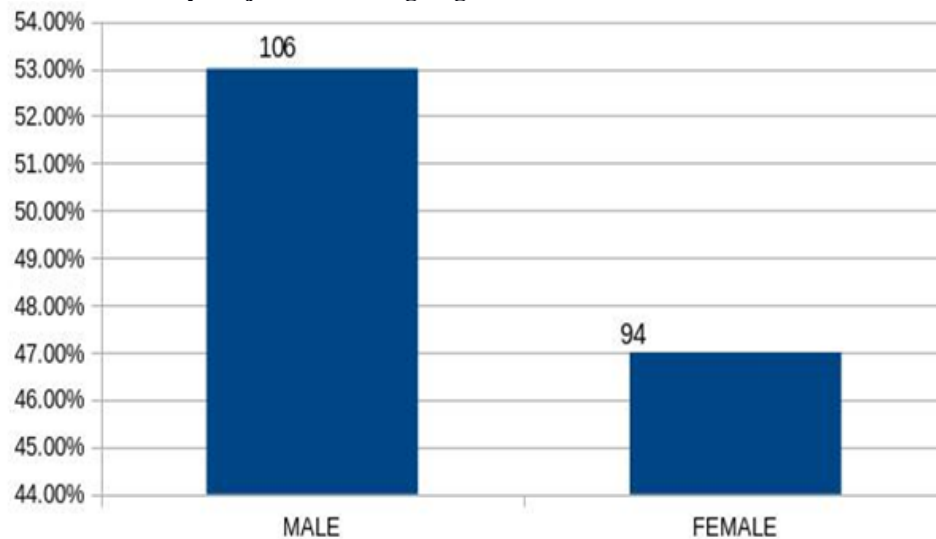
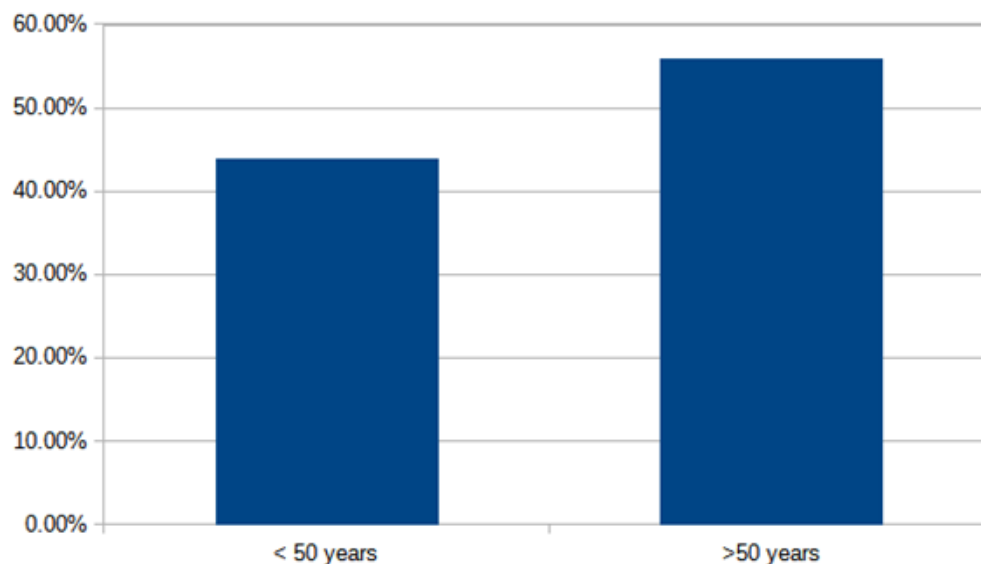
Microsoft Excel sheet was used to gather data. Descriptive Statistical analysis was used to describe parameters of questionnaire. Chi-square test was used

to find significant association between parameters and $p\text{-value} < 0.05$ was considered statistically significant. IBM Statistical Package for the Social Sciences (SPSS) for Windows, version 22.0 (IBM Corp., Armonk, NY, USA) was used to perform calculations. This study was conducted in compliance with the Helsinki 2013 declaration.

RESULTS

Among 200 study subjects, 106 (53 %) were males and 94 (47 %) were females (Figure. 1). 88 (44 %) subjects were below 50 years of age while 112 (56 %) were above or 50 years of age (Figure. 2). 138 (69 %) participants reported that they were explained about disease, treatment plan including treatment cost. 159 (79.5 %) patients said that apart from basic information about the disease, further required information was also provided by the dentist (Table. 1). Overall positive response by patients over Appointment were obtained with approximately 80% were able to get appointment as per their suitability and informed well in advance by dental department if there were changes with future appointment schedules. 161 (80.5 %) patients said they got treated by the same dentist, maintaining consistency required to build a patient-dentist rapport for the dental treatment (Table. 2). 168 (84 %) patients responded that the waiting area was neat and clean.

Nearly half of study participants reported that it was hard for them to engage in waiting area as stationary informative pamphlets informing about the disease condition and treatment were not available (Table. 3). 137 (68.5 %) patients assured that their arrival was intimated to respective dentist by supporting staff and that they were taken into dental operatory for treatment within 10 minutes of arrival. They were informed about the delay from their allotted appointment schedule with reasons, hence a better compliance (79 %) was obtained for the same (Table. 4). A positive feedback was obtained by patients over quality of treatment care and professional behavior of the dentist as well as the team (Table. 5). There was no statistical significance found between above mentioned parameters and age as well as gender.

Figure. 1 Distribution of study subjects according to gender**Figure. 2 Distribution of study subjects according to age**

Questions	Response n (%)			
	Never	Occasional	Most of times	Always
Dentist - Patient relation				
1. I have been explained about my disease / condition and the treatment including treatment cost in detail by the dentist	3 (1.5)	7 (3.5)	52 (26.0)	138 (69.0)
2. My dentist provides me with information I need apart from what is explained	1 (0.5)	2 (1.0)	38 (19.0)	159 (79.5)

Table. 1 Patient's response to Dentist - Patient Relation (n = 200)

Questions	Response n (%)			
	Never	Occasional	Most of times	Always
Appointment				
1. I can get appointment when it suits me and find it easy to contact dental office to make changes on request	3 (1.5)	5 (2.5)	35 (17.5)	157 (78.5)
2. I see my dentist each time I come	0	4 (2.0)	35 (17.5)	161 (80.5)
3. I have been always informed well in advance if there is change in appointment	0	2 (1.0)	39 (19.5)	159 (79.5)

Table. 2 Patient's response to Appointment (n=200)

Questions	Response n (%)			
	Never	Occasional	Most of times	Always
Facilities				
1. The waiting room is neat and clean	0	5 (2.5)	27 (13.5)	168 (84.0)
2. There are enough informative materials in waiting room to engage myself	24 (12.0)	33 (16.5)	42 (21.0)	101 (50.5)

Table. 3 Patient's response to Facilities (n = 200)

Questions	Response n (%)			
	Never	Occasional	Most of times	Always
Patient Waiting Time				
1. My arrival is informed to dentist by supporting staff	2 (1.0)	4 (2.0)	57 (28.5)	137 (68.5)
2. I see my dentist within 10 minutes of my appointment	1 (0.5)	18 (9.0)	45 (22.5)	136 (68.0)
3. I am well informed with reasons of delay and have no complains whenever I've to wait for procedure	4 (2.0)	7 (3.5)	31 (15.5)	158 (79.0)

Table. 4 Patient's response to Patient Waiting time (n=200)

Questions	Response n (%)			
	Never	Occasional	Most of times	Always
Quality of Treatment Care				
1. I'm happy with treatment given and approach of dentist as well as staff is professional	0	1 (0.5)	35 (17.5)	164 (82.0)

Table. 5 Patient's response to Quality of Treatment care (n = 200)

DISCUSSION

Satisfaction involves intellectual, emotional, psychological parameter and previous experience as well as expectation of the subject⁴. Kotler defined satisfaction as: "a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome, in relation to his or her expectations"⁵. The healthcare industry is becoming consumer oriented where dental professionals are seen as service providers and patients their consumers⁶. Patient's feedback is one of the essential components of healthcare quality management^{7,8}. Although patients cannot assess dentist's competence or knowledge, but the holistic experience of their dental treatment underlines their perception for the quality of care⁹. Patient satisfaction surveys are widely accepted method to evaluate healthcare efficiency and service utilization^{9,10}. This survey was conducted with main aim to evaluate patient's satisfaction with regards to dentist-patient relationship, appointments, patient waiting time, facilities and quality of treatment care. The response rate was 100 % which is higher compared to previous studies¹¹⁻¹⁵. The overall mean percentage score of this study was 74.5 % which is higher to the study by Othamn and Abdul Razak¹⁶. However, it was lower than few studies which reported overall mean percentage score as high as 80-90 %^{11,14,17}. As such the overall proportion for satisfaction does not serve the purpose in evaluating incompetency on a large scale¹⁴. From all the evaluated parameters, highest overall mean value was received for quality of treatment care (82 %) by patients. This can be as the

patients were cautious and looking for a center where infection control protocols are followed stringently. Compared to studies where highest score were received for communication¹⁸⁻²¹, patients in this study were more satisfied with appointment scheduling and handling (79.5 %) than dentist-patient relation (74.3 %).

Communication is an important factor in determining patient's satisfaction. A good dentist-patient relation relies on soft communication including cognitive and emotional aspects with patient²². It has been demonstrated to increase patient compliance with clinical advice and regularity with revisits^{23,24}. An earlier study by Othamn and Abdel - razal showed only 45.6 % dentist-patient relationship¹⁶. High score in this study can be due to the methodical way used by dentists of the department involving patients in decision making for their treatment plan before and during the procedure. However, it is lesser than few recent studies^{15,18,25,26} where compliance received by study sample was more than 90 %.

Patients were allowed to choose appointment slot as per their accessibility and any change in appointment was informed to patient in advance by department for patient satisfaction. This was well appreciated by patients in the study receiving nearly 80 % of satisfaction. It is higher than the study done by Nagappan N and John J where 32 % of patients had problem in appointment scheduling as well as contacting the office²⁶. The repercussions of the same are seen in patient waiting time of this study where nearly 70 % of the patients said that they were taken for treatment within 10 minutes of arrival. Patients

opined that faster treatment with quality of care was what they need from institute where they were getting treated, which stresses patient health care management system¹⁴. The result obtained is more than study by Shetty A, et al²⁵ and Patel JY²⁷ where waiting time was least satisfactory issue. Limiting the number of patients by scheduling appointment and timely communication with reasons of delay received better satisfaction by patients in this study.

Every patient desires a good hospital environment during the treatment and also that long waiting hours are compensated by informative media / materials²⁸. In support of the above, 84% patients reported the about cleanliness and hygiene of waiting area maintained by the hospital. However, it was tough for patients to engage themselves before their procedure in absence of informative materials and pamphlets. 82% of the patients were satisfied with quality of treatment care. This achieved result is higher than studies by Mahrous MS and Hifnawy T¹⁴, Othamn and Abdul Razak¹⁶, Hashim²³ and Shetty A, et al²⁵. Although various studies showed males and older age group less satisfied than females and young respectively^{29,30}, unexpectedly no statistically significant association were found between satisfaction and variables of age and gender in this study.

CONCLUSIONS

This cross-sectional study represented a self-evaluating approach to measure patient's satisfaction as an indicator for quality of dental services. The results of the study indicated that with proper communication positive response by participants over satisfaction was obtained even due to challenging treatment trends. Evaluation of patient's satisfaction should be done at regular intervals by conducting such surveys to maintain high percentage of satisfaction and for further improvement by acknowledging the limitations and deficiencies of the dental health care delivered. However, there are few limitations of this study, first being cross-sectional nature of the study which is used to collect data on prevalence of satisfaction and thus was not able to determine cause-effect relationship of satisfaction levels. Also, this cross-sectional study has been subjected to recall bias as patients tend to remember dental problems faced in past³¹. Secondly, if satisfaction is considered subjective³², then this questionnaire is insufficient to record all the aspects of dental care pertinent to their level of satisfaction. In that case a qualitative study would ascertain accurate results. It would not be wise to generalize the results to general population based on findings of this study which involved subgroup of patients attending Dentistry department. Further study based on qualitative findings with larger sample size would help to determine the level of satisfaction achieved in this study.

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