

Original Article

SATISFACTION OF PATIENTS VISITING SELECTED DENTAL TEACHING HOSPITALS IN ISLAMABAD: A CROSS-SECTIONAL STUDY

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ABSTRACT

Objectives: To determine patient satisfaction with their visits to dental teaching hospitals in Islamabad, where multiple hospitals offer affordable and standard treatment.

Materials and Methods: This cross-sectional study involved 200 consenting patients who completed a customized satisfaction questionnaire using a five-point Likert scale. Data were analyzed using IBM SPSS ver. 23, with descriptive statistics, including mean, standard deviation, and frequency distribution, to determine satisfaction scores.

Results: The mean satisfaction scores for administration and advocacy, facilities, and dental professionalism were 4.197 (SD = 0.549), 3.721 (SD = 0.606), and 4.382 (SD = 0.578), respectively. Corresponding satisfaction percentages were 84%, 74%, and 88%. The overall satisfaction score for the visit to a dental hospital in Islamabad was 4.10 (SD = 0.72), with a satisfaction percentage of 82%. The highest-rated factors were receptionist courtesy (Mean = 4.45, SD = 0.663, 89% satisfaction) and dentist-patient communication (Mean = 4.45, SD = 0.807, 89% satisfaction). The lowest-rated aspects included hospital affordability (Mean = 3.64, SD = 1.333, 73% satisfaction) and availability of a pharmacy (Mean = 3.00, SD = 1.468, 60% satisfaction).

Conclusion: Most patients were satisfied with dentist-patient communication, administrative services, and the overall hospital environment. However, concerns were noted regarding treatment costs, long wait times, and the lack of an on-site pharmacy. Enhancing affordability and accessibility could further improve patient satisfaction.

Key words: Patient Satisfaction, Dental Care, Teaching Hospitals, Hospital Administration, Dentist-Patient Relations

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INTRODUCTION

Patient satisfaction is sought by doctors all over the world before, during and after the treatment. It is one of the subjective phenomena that holds,

non-arguably, the utmost value in the long-term quality of healthcare provision to the patients¹. “Satisfaction” is the extent of one’s experience in comparison to one’s expectations² which means that it varies among different people of different backgrounds who come with different expectations.

There are numerous countries where the primary motive is to gain and measure patient satisfaction to evaluate the degree of care that patients receive; however, this proposal is still picking up steam within developing countries such as Pakistan³. As

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much as this is important for patients to gain trust in their doctor, healthcare workers worldwide also unanimously agree that patient satisfaction is a fundamental concern of their practice. Recent studies have determined a direct correlation between a patient's level of satisfaction and a positive treatment outcome⁴.

Patients' mindsets and anticipations towards dental care are shifting due to the increased awareness regarding dental services⁵. The general public relies highly on hospital equipment for dental complaints, and patients decide carefully on hospitals for their treatments⁶. It is widely believed by patients that the more services provided, the better the quality of treatment will be⁷. Tools that measure patients' responses to dental therapy, such as structured questionnaires, aid in assessing patient approval of the dental care provided^{2,8,10}. Such studies have been carried out in various dental training institutes internationally¹⁰.

In the past, very few researches are carried out on dental patient satisfaction in Pakistan, which includes major cities like Karachi^{7,11}. As per the literature review, none of the studies have been carried out in the Islamabad region, thus providing us to carry out this survey in the capital of Pakistan.

This study aims to identify and highlight the key issues within the services provided by dental teaching hospitals in Islamabad. By assessing patient experiences and satisfaction levels, the study seeks to pinpoint areas for improvement, such as treatment quality, administrative processes, and overall hospital facilities. The findings will serve as a foundation for addressing these concerns, with the goal of enhancing the effectiveness, efficiency, and overall patient experience in these institutions. Through this research, actionable recommendations can be made to rectify the identified problems and improve the standard of care provided to patients in the future.

MATERIALS AND METHODS

This is a descriptive cross-sectional quantitative study approved by the ethical review board of Riphah International University in which a customized questionnaire was circulated that targeted the concerns of patients during a visit to a dental hospital. This study was conducted in the months of January till March of the year 2021. The selected hospitals were private tertiary care dental teaching hospitals of Islamabad.

Two hospitals were selected based on their location in Islamabad and similar patient flow. They are to be kept anonymous as per requirements from the administrations of the hospitals. The convenience sampling technique was used to collect data from individuals who were conveniently available to participate in the study.

With a confidence level of 95%, a margin of error of 7%, a population proportion of 50%, and a population size of Islamabad being 2,001,579¹¹, using the WHO calculator and Slovin's formula, the final sample size was 200 (n=200) hence a total of 207 patients participated, all of the participants filled the questionnaire while seven of the questionnaires were rejected based on incomplete data, following the rejection theory¹³.

Consenting patients with at least two visits were selected from the waiting areas. Patients having their first visits were excluded. Also, inspired by Gillick's competence¹⁴, the data of the participants under the age of 16 was taken with the help of their parents.

The dental Satisfaction Questionnaire given by Dental Satisfaction Survey 2002 by Judy F Stewart and A John Spencer¹⁵ was modified according to the settings of a dental teaching hospital in Islamabad. The reliability statistics revealed Cronbach's alpha to be 0.75. A questionnaire having fifteen close-ended statements using a Likert scale¹⁶ was designed¹⁷ covering three main categories: dental professionalism, facilities, and administration, with each category having an equal number of questions. This tool has also been translated into Urdu for convenience. As it was translated into Urdu, it was back-translated to English to check its content and face validity. Demographic information was also recorded in the same questionnaire. An additional section for suggestions was also added. As the tool has been modified, it was piloted on 10% of the sample size to check its reliability and validity.

IBM SPSS software version 23 was used to enter and analyze the data. Pie charts, histograms, and descriptive tables were used to represent the data. Mean scores were calculated to determine the satisfaction levels.

The questionnaire used was divided into three domains: Administration and Advocacy, Facilities, and Dental Professionalism. All items were scored on

an ordinal scale from one to five. These scores reflect satisfaction with the dental hospital. An average of the scores was then taken to get the mean value for each category.

RESULT

Table 1 presents the demographic characteristics of the study participants. Among the 200 respondents, 107 (53.5%) were male, and 93 (46.5%) were female. The age distribution indicated that 28 participants (14%) were aged 17 years or younger, while the majority, 102 (51%), were between 18 and 39 years old. Additionally, 50 participants (25%) fell within the 40–59 age group, and 20 (10%) were aged 60 years or older. The mean age of participants was 34 years.

Table 2 provides descriptive statistics for the major categories assessed in the questionnaire, including administration and advocacy, facilities, and dental professionalism. The mean satisfaction scores for these domains were 4.197, 3.721, and 4.382, respectively. Median values closely aligned with the means, measuring 4.2, 3.8, and 4.4. The most frequently occurring responses (mode) were 4 for administration and advocacy, 3.4 for facilities, and 5 for dental professionalism. The standard deviations for these categories were 0.549, 0.606, and 0.578, respectively, indicating moderate variability in responses.

Table 3 summarizes the descriptive statistics for individual items related to patient satisfaction. The highest-rated aspects were "The receptionists were welcoming and helpful" (Mean = 4.45, Satisfaction = 89%) and "The dentist at the OPD listened to my complaint fully and guided me well" (Mean = 4.45, Satisfaction = 89%). Similarly, "The dentist of the concerned department was able to diagnose and inform me about the treatment options" received high satisfaction (Mean = 4.43, Satisfaction = 89%).

On the other hand, the lowest-rated aspect was "A pharmacy store was available in the location", with a mean score of 3.00 and a satisfaction percentage of 60%. Additionally, "The hospital charges were reasonable" scored 3.64, with 73% satisfaction, indicating some concerns regarding affordability.

Overall, the total mean satisfaction score was 4.10 (82%), suggesting a generally positive patient



Fig 1-3 represent the satisfaction percentage of each division in the questionnaire in the form of a pie chart.

experience with dental hospital services.

DISCUSSION

The survey was implemented to assess the extent of patient satisfaction in the three aspects needed for the hospital setup, done by a self-administered questionnaire. No local studies were present on such aspects of patient satisfaction from dental teaching hospitals in Islamabad. We assessed patient satisfaction along the three parameters: administration and advocacy of the hospital, facilities, and dental professionalism.

Our cohort included different types of patients,

Table 1: shows the demographics of participants covering their gender, ages, and its frequency. The average age of patients who participated in the survey is 34 years.

Gender	Number	Percentage
Male	107	53.5%
Female	93	46.5%
17 years and under	28	14%
18-39 years	102	51%
40-59 years	50	25%
60 years and above	20	10%

and it is a well-known fact that most of the population that opts for hospitals includes the middle and lower socio-economic class due to financial constraints and affordability issues. For this reason, the hospitals are maintained in a way that promotes access to dental care at a reasonable cost. For example, in some hospitals, there is a division of treatment charges according to the professional level of the operating dentist to accommodate and attract all classes of the public.

The results of this survey showed that most of the people showed contentment with the administration of these hospitals. They were satisfied with the hospitality and cooperation

Table 2: briefly illustrates the descriptive data that states the central tendencies measurement analyzed in particular to each major category in the questionnaire.

	Administration and Advocacy	Facilities	Dental Professionalism
Mean	4.197	3.721	4.382
Median	4.2	3.8	4.4
Mode	4	3.4	5
Std. deviation	0.549	0.606	0.578

Table 3: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Satisfaction Percentage
The location of the dental hospital was easily reachable for the public transport	1	5	3.87	1.027	77%
I was able to find a parking spot easily	1	5	3.70	1.173	74%
I find the hospital timings very suitable	1	5	4.39	.699	88%
The receptionists were welcoming and helpful	2	5	4.45	.663	89%
The waiting area was large and comfortable	1	5	4.05	.950	81%
The dentist at the OPD listened to my complaint fully and guided me well	1	5	4.45	.807	89%
The board signs were enough for me to find my concerned department	1	5	3.98	.964	80%
The dentist of the concerned department was able to diagnose and inform me about the treatment options	1	5	4.43	.719	89%
The dentist made sure I was comfortable and pain free during the treatment	2	5	4.36	.826	87%
The instructions were given clearly after the treatment	1	5	4.35	.862	87%
I am satisfied with the treatment I received	1	5	4.32	.878	86%
The hospital staff was taking the safety measures	1	5	4.20	.912	84%
The hospital charges were reasonable	1	5	3.64	1.333	73%
A pharmacy store was available in the location	1	5	3.00	1.468	60%
I will recommend my nearest kith and kin to this dental hospital	1	5	4.31	.841	86%
Total Mean Satisfaction	3.005	4.455	4.100		82%

Note: 5 strongly agree, 4 agree, 3 neutral, 2 disagree, 1 strongly disagree

of the staff. Patients who showed dissatisfaction mainly complained about the rise in charges of the treatments as compared to the past. This can be justified because our study was carried out throughout Covid-19, and hospital staff taking care of all the SOPs and dentists using the PPEs lead to the overall increase in the cost of the services provided to the patients. Patients also complained about the long waiting time and suggested special protocols being given to the senior citizens. Trakroo¹⁸ enumerated the factors that affect the extent of contentment of patients at OPDs. These include unnecessarily extended waiting hours at the reception, any inappropriate behavior of the staff, inadequate space and time to accommodate the patients, lack of an operational interdisciplinary team, and clinician's objectionable behavior. In our cohort of trust hospitals, 84% satisfaction levels were seen in the administration area¹⁸.

The survey also discovers that the amount of satisfaction the facilities brought is quite insignificant, with around 26% of people showing concern. The departments, waiting area, board signs, and directions were appreciated by the patients. However, they mentioned improving hygiene and a rate list of procedures to be displayed, so they are aware of their finances before their treatment. The study also reveals that a significant obstacle to approaching dental treatment is the financial condition^{19,20}. The major setback was the unavailability of parking for patients and the absence of the pharmacy store on the premises.

88% of the participants showed their satisfaction with the professional attitude and appreciated the polite and friendly behavior of the dentist. Patients were well pleased with the dentist listening to their problems, answering queries, and explaining the different treatment options. The dentist's knowledge and proficiency in describing the pathology, outcomes, and treatment options to the patient brought adequate attention to evaluating satisfaction levels². Rankin & Harris²¹ noted that 97% of patients inclined towards dentists who thoroughly explain the disease process, its management, and cure.

In addition, an analysis in New Zealand con-

firmed that nearly all patients required detailed explanations about their dental treatment²². A major barrier concerning dental treatment is dental anxiety^{19,20}. Proper communication makes the patient comfortable, reduces anxiety, eliminates the patient-dentist gap, and thus elevates the morality of a physician's character. Studies have shown that the conduct of dental surgeons, detailed examination, definite diagnosis and treatment explanation, management of emergencies, and frequency of visits are rated as "good" in patient satisfaction²³. Just as in various other studies, this study also indicates that a dentist's proficiency and ability to diagnose and explain the pathology and then present the treatment options in a simplified manner to the patient play a significant role in determining satisfaction levels 2.

However, the study had a few limitations. Since every age group has different requirements and expectations, it would have been better if our questionnaires were equally distributed between each age group of the population for a fair analysis. Like this shortcoming, stratified random sampling might have given more accurate results than the convenient sampling as patients were approached as per the convenience of the interviewers, not in an orderly fashion, i.e., an equal number of individuals from each department of the dental hospital. Moreover, some of the questionnaires were not filled by the patients but rather by their attendants because of various reasons; children, senior citizens, language barrier, and some female patients for whom their male attendants answered. Furthermore, future researchers should study a greater number of hospitals widespread in Islamabad for a better representation of patient satisfaction in visiting these dental teaching hospitals. Lastly, we conducted our study during the peak of Covid-19 in Pakistan, and it undoubtedly had an impact²³.

CONCLUSION

After assessing the three domains, the study deduced that the administration and dental professionalism sectors proved to be acceptable by the patients, with a satisfaction percentage of 84% and 88%, respectively. However, the facilities sector showed considerable concern

that 26% of patients demonstrated dissatisfaction. Overall, patient feedback regarding their level of contentment has shown to be up to the mark. Further advancement in various fields of dental service provided in a tertiary care hospital is possible by monitoring patient satisfaction repeatedly.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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AUTHORS' CONTRIBUTION

The following authors have made substantial contributions to the manuscript as under:

Conception or Design: RSBS, UBR, SDA, HSK, NY, OBT

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Manuscript Writing & Approval: RSBS, UBR, SDA, HSK, NY, OBT

All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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