

Assessment of Out-Patient Waiting Time in a Dental Health Service of a Dental College: A Cross Sectional Study

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Abstract

Background: The health care services provided and measures taken by the organizations to manage and improve it, is one of the factor for patient's satisfaction. The management of the health care units in providing service and taking care of patient's waiting time in outpatient unit is also important. Patient satisfaction in dental schools and hospitals can also get affected by the management of these factors like registration process, waiting time for the treatment etc. Thus, the aim of the study was to analyse the outpatient waiting time of new patients attending Sinhgad Dental College and Hospital, Pune.

Materials and method: A cross sectional analytical observational questionnaire based study was conducted at the Sinhgad dental college and hospital in Pune over a period of two months. 180 participants were randomly selected from the dental clinics. The participants were interviewed by the investigator personally at the Out Patient Department (OPD) using a questionnaire.

Results: All the respondents showed a strongly agree, agree or neutral response. The present study showed the mean time required to wait before registration was 1.96 min, for new registration was seen to be 3.20 min, before primary consultation was about 5.47 min and for primary consultation was 10.81 min.

Conclusion: It can be concluded that in the present study most of the patients were satisfied with waiting time and primary consultation unit provided at Sinhgad dental college and hospital, Pune.

Keywords: Patient satisfaction; Management; Health care services; Dental school; Hospital

Introduction

Patient satisfaction is defined as the fulfillment or meeting of expectation of a person from a service or product. When a patient visits a hospital, patient may have a preset image of the various aspects of the hospital as per the reputation and cost involved. Although, their main expectation is getting cured and going back to their work, but there are other factors as well, that can affect their satisfaction. At times, it must have happened that patients might have rated a hospital low on the basis of the information, they have got from different sources, but they may find it above their expectation and thus they are satisfied. Similarly, if they have a very high expectation from a hospital, but if they find it below their expectation, they are not satisfied [1].

Now a day's hospital has expanded in terms of availability of specialties, improved technologies and facilities. Thus, an increased competition of hospitals and the expectations of patient and their relatives have also increased many folds. Consumer expectations in any medical experience influences whether how soon and how often they seek care from which medical facility. Higher expectation from a medical organizations is a positive indicator of their reputation in the society and is very important for attracting patients, whereas lower expectation discourages patients from taking timely medical help, thus it can negatively affecting himself as well as the medical care provider. However, a very high and unrealistic expectation can lead to dissatisfaction despite reasonable good standards of medical practice [2].

Patient turnaround time is defined as the length of time from when the patient entered the outpatient clinic to the time the patient actually leaves the OPD. Patient waiting time is often one of the most frustrating parts about healthcare delivery system. The amount of time a patient spends to be seen when he visits a clinic, is one of the factor which can affect the utilization of health care services and thus, patients may perceive long waiting times as barriers to actually obtaining services. Keeping patients waiting for long time can unnecessarily be a cause of stress for both patient and health care professional. Waiting time is a tangible aspect of practice that patients will use to judge health personnel, may even more than their knowledge and skill. The management of the hospital has observed that those patients on appointment and on the queue, at times show their discontentment with the longer waiting time at the hospital. Sometimes, patients may even leave without treatment [3].

Patient's satisfaction can also be explained as a person's feeling of pleasure or disappointment resulting from comparing a product's perceived outcome in relation to his or her own expectations. At present, the health care industry is adopting the

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customer-oriented approach in the delivery of care. Therefore, patient's satisfaction surveys became important tool in measuring the quality of health services provided by these health care systems. Information obtained through patient's surveys has been proved as a successful tool of improving the quality of the provided health care services. Patient's perceptions, views, and satisfaction with dental health care services became recognized as the measures of quality assurance programs.

Nevertheless, the dental schools worldwide are facing real challenge to balance between the need to educate their students about professionalism and providing ultimate quality of dental care to their patients on one side and coping with the high number of patients seeking dental treatment on the other side. Dental teaching hospitals are usually preferred by patients for comprehensive dental treatment care due to their reputation, affordability and professional competency of their clinicians [4].

Thus, the aim of the present study was to analyse the outpatient waiting time of new patients attending Sinhgad Dental College and Hospital, Pune. The objective of the study was to establish a relation between waiting time and patient satisfaction in Sinhgad Dental College and Hospital, Pune.

Materials and Methods

This cross sectional analytical observational study was conducted at the Sinhgad Dental College and Hospital in Pune over a period of two months. One hundred and eighty participants were randomly selected from the dental clinics using a convenient sampling technique. Written informed consent was obtained from patients who agreed to participate voluntarily, and ethical clearances were obtained from the institution's ethical committee. The inclusion criteria for participants was that the patients above 18 yrs of age were interviewed and new patients attending Sinhgad Dental College and Hospital, Pune were also included in the study. Intellectually challenged patient and patients unwilling to participate were excluded from the study. A personal interview was conducted by the investigator. Participants were interviewed between 11 am to 1 pm as the OPD peaks at this time. The questionnaires were numbered serially and coded. The data was compiled in excel sheet. Then by using statistical analysis, the comparison and association was established.

Statistical analysis

The collected data have been tabulated and statistically analyzed using SPSS v.22. Comparisons between qualitative data were done using chi square test. The continuous variables were described using mean \pm Standard Deviation (SD).

Results

The expected response prior to study was equal proportions but on observation it was found that 110 (68.8%) respondents gave response to strongly agree. This difference was statistically significant $P < 0.05$ (Tables 1-4).

Table 1: Satisfaction scale Q1 (Question 1).

Question - 1	Response	Frequency	Percentage
How long did you wait before registration?	Strongly Agree	110	68.8

Agree	42	26.3
Neutral	8	5
Total	160	100

The expected response prior to study was equal proportions but on observation it was found that 56 (35%) respondents gave response to strongly agree. This difference was statistically significant $P < 0.05$.

Table 2: Satisfaction scale Q2 (Question 2).

Question-2	Response	Frequency	Percentage
Time taken for registration?	Strongly Agree	56	35
	Agree	104	65
	Total	160	100

Table 3: Satisfaction scale Q3 (Question 3).

Question-3	Response	Frequency	Percentage
Waiting time taken in department for primary consultation?	Strongly Agree	20	12.5
	Agree	105	65.6
	Neutral	35	21.9
	Total	160	100

Table 4: Satisfaction scale Q4 (Question 4).

Question-3	Response	Frequency	Percentage
Waiting time taken in department for primary consultation?	Strongly Agree	20	12.5
	Agree	105	65.6
	Neutral	35	21.9
	Total	160	100

The expected response prior to study was equal proportions but on observation it was found that 20 (12.5%) respondents gave response to strongly agree. This difference was statistically significant $P < 0.05$.

The expected response prior to study was equal proportions but on observation it was found that 7 (4.4%) respondents gave response to strongly agree. This difference was statistically significant $P < 0.05$.

The mean time required waiting before registration was 1.96 min, the mean time required for new registration was seen to be 3.20 min, the mean time needed to wait before primary consultation was about 5.47 min, the mean time required for primary consultation was 10.81 min. All the respondents showed a strongly agree, agree or neutral response.

Discussion

The present study showed the mean time required to wait before registration was 1.96 min, for new registration was seen to be 3.20 min, before primary consultation was about 5.47 min and for primary consultation was 10.81 min.

All the respondents showed a strongly agree, agree or neutral response. Assessment of quality of the health care is necessary and compulsory for all health services, in such evaluation the participation of patients and their experience as well as their review plays important role. Patients spend substantial amount

of time in the waiting area for services to be delivered by physicians and other allied health professionals. The degree to which health consumers are satisfied with the care received is strongly related to the quality of the waiting experience. Failure to incorporate consumer-driven features into the design of wait experience could lead to patient and provider dissatisfaction [5].

The average waiting time was 2 hours 40 minutes, the range being from under 1 hour to 6 hours; about 41% of the patients were satisfied and 48% were dissatisfied with this situation. The average waiting time of patients was 2 hours 53 minutes (173 minutes) and thus suggested waiting time prior to consultation is an area of concern that need to be addressed. The three most common factors leading to long waiting time were high patient load, less number of doctors as well as record clerks. The major bottleneck causing high waiting time was found to be the consultation waiting time which was 40 minutes on an average and this has to be one of the major causes of discontent among the patients in OPD to which a fall in number of OPD can be attributed. A survey on the relationship between patients's perceived waiting time and satisfaction and thus reported that reduced waiting time may lead to increased patient satisfaction and greater willingness to return in primary and specialty care outpatient settings [6-9]. Moreover, increased waiting time as well as reduced time spent with the physician coincides with noticeable drops in patient satisfaction. A study on patient satisfaction with dental health care services and concluded that longer waiting time period for the treatment seemed to be the main reason for patient dissatisfaction. The various countermeasures which can be adopted to address the complexity of factors that lead to the long patient waiting time in the clinic includes designing a standard appointment system for the clinic, setting up a central tray set-up system for the instruments of the various dental procedures, sensitizing staff on time management and respect for patient's time and designing and putting in place patient's information flow system to emphasize their responsibilities in this aspect of reducing their waiting time. Outpatient clinics serve an ever increasing role in the modern healthcare system. It is important that the organization, administration, and layout accurately reflect the patient population it serves [10].

The waiting time for receiving the health care services is affected by the demand. He also linked these factors to the health care demands of the consumer and mentioned that if the waiting time of the patient for receiving the health care services is too high, the patient can move from the main center to the other private sectors for getting services and even the traditional medicine. The factors within and outside the hospital are mainly involved in generating the waiting time. These factors can be identified by using few techniques such as network diagrams and fish bone diagrams. In clinics of hospital, although the patients may wait for long time before admission, but all of them would be accepted in a short time. It seems that false claim is seen in these patients. These factors need to open people's attitude towards engineering [11-13].

• However acceptance of increased number of patients cannot be ignored. According to the network analysis, four factors are involved in the long waiting time of the patients.

- Human resources lack of human resources and professional workers in the hospitals such as physicians, licensed nurses and other professional staff.
- Equipment and facilities the type of information system used in hospitals is one of the major factors. Most of the hospitals use the same old admission systems on the same day.
- Patients themselves and their attitudes are involved in the increased waiting time.
- Registration process.

Despite the longer waiting time for outpatients, their visiting time is found to be extremely low. Visiting time of 5 minutes in learning and educational hospitals created a place for challenging the subject. Although the expertise opinion and insight of different specialists in making correct diagnosis is different, but the patient has the right to get a typical expert advice for a standard duration of time [14].

Longer waiting time may lead to the worsening of the patient's disease which needs consultation with the doctor. Therefore, the best quality services in health care organizations are the right of every individual. One of the most important tools to improve the quality of health care services is to reduce the long waiting time. One of the interventional methods for detecting long waiting time and its resolution is performed by six sigma approaches [15].

Conclusion

One of the limitations of this study is the small and limited sample size. Further studies are required to be conducted with larger sample size and on large scale approaches. Thus it can be concluded that in the present study most of the patients were satisfied with waiting time and primary consultation unit provided at Sinhgad dental college and hospital, Pune.

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