## **Original Research Article**

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# Patient satisfaction and waiting times in the primary health centres of South Chennai

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#### **ABSTRACT**

**Background:** Patient satisfaction and the out-patient waiting time denotes the extent to which general health care needs of the patients are met to their requirements. This study assesses the quality of health care delivery in three primary health care centres in south Chennai. The main aim was to assess the levels of patient satisfaction and its relation to various components and the waiting time among the patients visiting the primary health centres in south Chennai

**Methods:** This is a cross sectional study conducted in three primary health centres in the rural part of south Chennai. This study is conducted by face to face interview method using a structured questionnaire on 120 random patients visiting the OPDs of these health centres. The questionnaire included timing pattern associated with the patients visit in the health centre. The collected data is analysed using Chi-square test and is conducted to assess the relationship between different categorical variables.

**Results:** Most of the respondents (66.6%) were highly satisfied with the service provided, treatment and physician care, facilities inside the hospital, and the care of paramedical staff. Hospital cleanliness and Physician care were found to be significant in terms of overall satisfaction, and large number of patients visiting the centre was the most quoted reason for long waiting times with a mean of 45.2 minutes.

**Conclusions:** The longer waiting times can be effectively reduced by employing more doctors and paramedical staff wherever it is required. A proper feedback system by assessing the satisfaction and waiting time is needed in any tertiary health centre to improve the health care delivery.

Keywords: Patient satisfaction, Primary health centres, Quality of health care, Waiting time

### INTRODUCTION

Patient satisfaction is one of the best methods to assess the effectiveness of health care delivery and quality of medical care provided to them. The data collected will help as a decision-making tool to further enhance the service delivery. Patients come with expectations before their visit and the final satisfaction or dissatisfaction during their visit is reflective of their actual experience.<sup>1</sup> Patients spend a lot of time in the clinics, waiting for their services to be delivered by its staff. The degree to which these patients get the satisfaction with the care received is strongly related to the quality and time of the waiting experience.<sup>2</sup> The duration of waiting time varies from country to country, and from hospital to hospital. Long waiting times have been reported in both urban and rural

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areas. It is often one of the most frustrating parts about government health care delivery system.<sup>3</sup> Measurement of patient satisfaction and the OP waiting time has become common place in many healthcare settings due to its impact on quality of care.<sup>4</sup> It has been known for some time that satisfied patients are more compliant with the treatment, and maintain appointments with the same physician.<sup>5</sup> The present study made an attempt to understand the various aspects of health care satisfaction along with the waiting times in the tertiary care centres in south Chennai.

#### **METHODS**

A cross sectional study was done in three primary health centres associated with Chettinad Health and Research Institute in South Urban Chennai from October 2019 to January 2020. The required sample was selected using random number generation methods, by picking up the patient who was assigned a random number during his registration in the OPD and the interview was conducted before leaving the hospital. 40 patients from each PHC were interviewed on different days to eliminate selection bias. All the patients that are willing to participate and those who gave informed consent were included in the study. Institutional Ethical approval was obtained from IHEC, CARE.

#### Statistical analysis

Statistical analysis was done using IBM SPSS version 24. Chi-square test was done to measure association between different variables.

The sample size was calculated by using the formula  $n=Z2pq/d^2$  (where Z=1.96 at 95% confidence; p=prevalence of patient satisfaction; q=1-p; d= absolute allowable error). For this study we presumed maximum variability, therefore p=0.5; q=0.5; d=20% of p. The achieved sample size was 100. Adding non-response rate of 20%, the total sample size was calculated to be 120.

#### Study tool

A structured questionnaire was designed based on the Patient Satisfaction Questionnaire Short Form (PSQ-18) tool, a concise, validated tool that can be used in various settings, which was developed by RAND health care.6 The questionnaire was modified to fit Primary health centres, to examine several aspects of OPD services and the waiting time. Likert scale was used to assess the final satisfaction of the patient. Simple random sampling technique was used to select patients attending the OPDs of three different PHCs on different days.

The questions included registration process, seating arrangements, cleanliness, approach to the doctor, pharmacist and lab tests, services provided by the doctors, paramedical staff & their behaviour with the patients, time required for consultation, investigations and taking

medicines from pharmacist. The scores that were used to assess the satisfaction in the patients was developed by PSQ-18 scoring system.<sup>6</sup>

#### **RESULTS**

The majority of the study subjects belonged to the age group of <55 years. The mean age of the study population is 44.5 years. There were 70 (58.3%) females and 50 (41.7%) males. 65.8% of the patients attending the OPD were found to be married during the study period, and about 35% of the total study population are illiterates. Only 15 in the 120 belonged to upper middle class and 68 of them belonged to lower class. When asked about their reason to visit the hospital, most of the patients had complained about upper respiratory tract infections, and second most common symptom is fever.

Table 1: Frequency distribution regarding service.

Frequency distribution	n=120	Percentage				
Did you receive the service you came for?						
Yes	101	84.2				
No	19	15.8				
Is the Physician available at the time of your visit to						
PHC?						
Yes	110	91.7				
No	10	8.3				
Reason for choosing this hospital?						
Location	62	51.7				
Record of the hospital	18	15				
Waiting time	4	3.3				
Free treatment	36	30				
Reasons for long waiting times?						
More number of patients	72	60				
Physician is not capable	23	19.2				
Lack of staff	17	14.2				
Lack of proper directions	8	6.7				

Table 2: Break-down of activities by time taken at PHC.

Break-down of activities	Mean time taken	Std. deviation
Registration	10.6	5.8
Waiting to meet doctor	7.83	3.6
Consultation time	7.92	2.9
Lab investigations	9.8	7.2
Pharmacy	7.92	3.1
Total Time	45.2	15.3

101 patients out of 120 said that they received the service they came for. Only 10 out of 120 patients said that the doctor wasn't available when they visited the PHC. Location of the hospital turned out to be the main reason for choosing this hospital for majority of the patients (51.7%), and free treatment (30%), record of the hospital (15%) were other common reasons for rest of the patients

(Table 1). Only 74.2% of the patients have received proper guidance regarding their disease in the PHC. The average total time taken by the patients is 45.24 minutes from registration to leaving the PHC. The break-down of the total time taken in the PHC to avail the health care service is given below (Table 2).

Majority of the patients quoted "More people attending the hospital" as a reason for the longer waiting times, and neither the capability of physician nor the lack of proper directions was not a reason for time spent at the PHC. In the present study the satisfaction of the patients was not significantly associated with the time taken for the availing the service. But longer the duration of their stay in the hospital, the lesser the patients were satisfied. The satisfaction scores derived from the scale questions are analysed against the demographic factors to find any relationship between the factors, although there was no significant impact on the outcome (Table 3).

Regarding the availability of drinking water and toilet facilities, majority of the patients (77) felt they were either average or poor. Seating arrangement was found to be good according to 56% of the patients and is significantly associated with the overall satisfaction (p<0.001). Cleanliness of the hospital has seen to have a good impact on the overall satisfaction with a significant association (p<0.001).

Table 3: Association of patient satisfaction with demographic factors.

Demographic factors		Patient sa	Patient satisfaction		
		Poor	Average	Good	P value
Age group (years)	15-35	6	7	34	
	35-55	6	12	32	0.08
	>55	3	5	15	
Sex	Male	5	9	36	•
	Female	10	15	45	0.675
Education	Illiterate	5	10	26	
	Primary	5	4	24	0.06
	Secondary	4	8	25	
	Inter	1	2	6	
Marriage	Single	3	3	21	•
	Married	10	18	51	0.82
	Divorced	1	0	2	
	Widowed	1	3	7	
Religion	Hindu	13	17	70	
	Muslim	1	5	6	0.14
	Christian	1	2	5	

Table 4: Patient satisfaction in relation to various components.

		Patient sati		D 1		
		Poor	Average	Good	P value	
Cleanliness	Poor	12	15	4		
	Average	2	3	24	< 0.001	
	Good	1	6	53		
	Poor	9	3	7		
Seating	Average	3	16	19	0.001	
	Good	3	5	55		
	Poor	2	0	14		
Paramedical staff	Average	4	17	26	0.006	
	Good	9	7	41		
	poor	7	2	32		
Facilities inside PHC	Average	3	12	21	0.033	
	Good	5	10	28		
Physician care	Poor	6	4	0		
	Average	4	8	22	< 0.001	
	Good	5	12	59		

Both the services provided by the physician and paramedical staff was satisfactory. Around 76 patients were happy with the Physician and it is significantly associated with the overall satisfaction (p<0.001). Services provided by the paramedical staff (57) were found to be statistically not significant with the satisfaction scores (p=0.06) (Table 4).

#### **DISCUSSION**

In the current study, majority of the patients were satisfied with the health care service provided in the PHCs of southern Chennai.

A study conducted by Jadhav et al in out-patient department of Government Medical College, Miraj, reported that 70.57% seating arrangement in OPD and 78.22% cleanliness of OPD found to be good, which was almost similar to our study. In our study, we found these two factors are significantly associated with the satisfaction outcome. Another study conducted in a Mangalore Private hospital showed that the patients were fully satisfied in respect to seating arrangement, cleanliness in the OPD.

In another study by Sharma et al, 72% respondents were satisfied with convenient to reach appropriate OPD, 80% of respondents were satisfied in providing directions, thereby minimizing the time spent at the hospital.1 In our present study, mot patients felt that the long waiting time was due to larger number of patients rather than lack of directions, supporting our argument. Similar to our study, where 60% of the subjects were unsatisfied with facilities, 68% of subjects in the same study were also unsatisfied with toilet facility in the hospital, 56% unsatisfied with drinking water facility.

According to standard operating procedures of OPD for district level hospitals waiting time for collection of OPD ticket is one minute, waiting time of 2-3 minutes for dispensing medicine and time for lab investigation is 10 minutes. In comparison to these standards waiting time, the findings of this study showed that it is rather longer.<sup>9</sup>

Virmani V et al found that in their study, 33% patients have to wait for more than 20 minutes and 14% patients have to wait for 15 to 20 minutes outside the consultation room and it was observed that the waiting time is more outside the medicine, surgery and gynaecology consultation rooms. Although the PHCs in south Chennai doesn't have specialties to compare, the mean time taken for general consultation is 7 minutes, which is very less compared to their study. <sup>10</sup>

Jadhav et al, 38.95% of total respondents were unsatisfied with time required for investigations while 48.7% were unsatisfied with time spent in pharmacy. 59.59% participants were unsatisfied with non-availability of prescribed drugs in the hospital and when asked to

purchase those medications from outside, 21.69% participants were dissatisfied. Whereas in our study, time taken for lab and pharmacy did not create any unsatisfaction in the patients.<sup>7</sup>

The average time spent by the patients in my study is 45 minutes, which is similar to the time spent by the patients in the study done by Nandkeshav et al. In their study, it was observed that 46.2% spent less than 10 minutes for getting card, 41.9% spent 10 to 20 minutes while 7.8% respondents got OPD cards within 20-30 minutes.<sup>11</sup>

#### **CONCLUSION**

This was a study conducted in south India to understand the aspects of patient satisfaction in government primary health centres. Most of the respondents in the study were satisfied with the overall services provided by the hospital. From this study, we have identified that the lack of facilities and proper seating arrangement were not the judging criteria in their satisfaction. In our observation, we have felt that the waiting time, even though a little longer didn't affect the satisfaction scores significantly. so, we can assume that the guidance regarding the disease and the care provided by physician and the staff is paramount to find overall satisfaction of the patients visiting the centre.

Patient satisfaction assessment should be conducted regularly in every government health centre, where accountability tends to be low. A complaint and suggestion box should be kept at every PHC, so that patients can freely put their complaints and suggestions. A help desk facility can help the patients in finding proper directions to lab, pharmacy and further provide better satisfaction. In centres with high influx of patients, more doctors and staff could be employed to tackle the number of OPD patients.

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Institutional Ethics Committee

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