

# Measuring patient satisfaction towards quality of outpatient care: a part of Health Systems Research

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## *Research Article*

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**Abstract:** Health systems research is essential for the continuous evolution and refinement of health services. Patient satisfaction is increasingly considered to be one of the most important factors in the measurement of quality of medical care. **Objective:** to assess health consumer satisfaction with regard to clinical care such as the approach of the doctor, examination, education on taking medication, availability of services, waiting time, and cost provided in the outpatient department of a medical college hospital. **Study setting:** A Cross-sectional questionnaire-based observational study was undertaken during January 2010 to March 2010 in the Out-patient department of Government Medical College, Miraj, Dist. Sangli. (Western Maharashtra) A total of 3150 patients were selected by Simple random sampling. **Results:** Seating arrangement in OPD (70.57%), drinking water facility (68.41%), & cleanliness of OPD (78.22%) found to be good. 71.39% found the communication by the doctors good. Only 16.67% respondents were unsatisfied with the explanation of the disease given by doctor & 21.37% respondents were in doubt about the efficiency of the doctor. 38.95% of total respondents were unsatisfied with time required for investigations while 48.7% were unsatisfied with time spent in pharmacy. The nature of prescription was found to be "Complex & Difficult" in case of 30.86% respondents while 19.23% were unsatisfied with the instructions given regarding medications. Respondents rated their experience as Excellent for 22.15%, Good for 29.26%, Average for 30%, Poor for 8.79% & Very Poor for 9.8% respondents. **Conclusions:** Majority of the respondents in present study gave positive responses towards location of the hospital, timings of the OPD, seating arrangement, cleanliness, drinking water facility & information charts. While, negative responses were given for Enquiry section, toilet facility, cost of investigations, availability of medications and waiting time for registration, investigations & in dispensary.

**Key words:** Patient satisfaction, waiting time.

## **Introduction:**

Health sciences have become complex. Questions are raised about quality & utilization of health care as well as improvement in institutions providing health care services. Health system research is essential for the continuous evolution and refinement of health services.<sup>1</sup>

In recent years, much attention has been paid to improve health care and decrease inequalities within health care systems. As well as addressing key areas such as structure, process, and outcome, which are normally taken from the provider's viewpoint, it is also necessary to address the patient's perspective. Patient-reported outcomes are an increasingly popular method of assessing the patient's experience within the health care system. It is thus an essential part of quality assessment to include patient satisfaction as an ultimate end point to health care quality.<sup>2</sup>

Patient satisfaction is increasingly considered to be one of the most important factors in the measurement of quality of medical care. Monitoring consumer satisfaction of health care is an important input to improving the quality of health services. Patients' priorities and views on quality care are well-documented in Western countries but there is a dearth of research in this area in developing countries like India.<sup>3</sup>

It is commonly acknowledged that patients' reports of their satisfaction with the quality of care and services, are as important as many clinical health measure. Consumer satisfaction regarding medical care organizations like

tertiary care hospital is important in the provision of services to patients.

So, this study was designed to assess health consumer satisfaction with regard to clinical care such as the approach of the doctor,

examination, education on taking medication, availability of services, waiting time, and cost provided in the outpatient department of a medical college hospital.

**Table 1: socio-demographic data of total respondents**

Variable	Total no. of respondents ( n= 3150)
<b>Age</b>	
15-29	630 (20.00%)
30-44	598 (18.98%)
45-59	1103 (35.02%)
60 & above	819 (26.00%)
<b>Gender</b>	
Male	1985 (63.00%)
Female	1165 (37.00%)
<b>Education</b>	
Graduate & higher	409 (12.98%)
Higher secondary	851 (27.01%)
Secondary	567 (18.00%)
Primary	725 (23.01%)
Illiterate	598 (18.98%)
<b>Occupation</b>	
Skilled	882 (28.00%)
Semiskilled	945 (30.00%)
Unskilled	630 (20.00%)
Unemployed	315 (10.00%)
Student	378 (12.00%)
<b>Concerned department</b>	
Medicine & allied	1134 (36.00%)
Surgery & allied	934 (29.65%)
Obst. & Gynecology	567 (18.00%)
Pediatrics	252 (08.00%)
Ophthalmology	283 (08.98%)
<b>Type of visit</b>	
First visit	2079 (66.00%)
Follow up	508 (16.12%)
Referred	563 (17.88%)

## Material and methods:

### Study setting & Sampling:

A Cross-sectional questionnaire-based observational study was undertaken during January 2010 to March 2010 in the Out-patient department of Government Medical College, Miraj, Dist. Sangli. (Western Maharashtra) A total of 3150 patients were selected by Simple random sampling by taking 10% total daily OPD patients during working days of three months of study period excluding 5% dropouts.

### Ethical consideration:

The institutional Ethical committee approved methodology & data collection procedure of the study.

### Data collection:

At first, every effort was made to gain the confidence of the participants. Participants were explained about the nature of study and assured that the information given by him/ her is required only for study purpose and will be kept totally confidential. Informed consent was obtained from the patients. Patients were enrolled in the study at the time of registration. A 40 items Pre-designed and pre-tested semi-

structured proforma containing the requisite items of individual's experience with manner & environment of health system and socio-demographic information was used to collect data from patients or their attendants at the end of their outpatient visit. Patient satisfaction was measured with six domains: general information, patient care, facilities & comfort, waiting time, investigations & cost. Patients were asked to rate their satisfaction with choices like satisfactory/unsatisfactory, easy/difficult, convenient/inconvenient, adequate/inadequate and an average 20 minute time slots of actual time spent during the interview. The patients were told that the investigator was not part of the treatment team. It was also emphasized that they were free to give their honest responses. The responses were expressed in proportions.

## Results:

The study population consisted of 3150 participants. (1985 males & 1165 females) Majority of the study subjects (35.02%) were belonging to 45-59 yrs age group. Respondents were 70.98% patient themselves while 29.02 % were accompanying relatives for paediatric (younger than 15 yrs), geriatric (>70 yrs old) & critically ill patients. Demographic data consisting of education, occupation was collected. Participants were also asked about the concerned department and type of visit namely first visit, follow up visit or referred visit from other hospital. [Table No.1]

**Table 2: Distribution of responses towards OPD environment**

Variable	Total no. of respondents ( n= 3150)	
<b>Location of the Hospital</b>		
Convenient	2466	78.28%
Inconvenient	684	21.72%
<b>Timings of the OPD</b>		
Convenient	2779	88.22%
Inconvenient	371	11.78%
<b>Banners/ information charts in OPD</b>		
Satisfactory	2309	73.30%
Unsatisfactory	841	26.70%
<b>Enquiry section</b>		
Satisfactory	1378	43.75%
Unsatisfactory	1772	56.25%
<b>Seating arrangement in OPD</b>		
Satisfactory	2223	70.57%
Unsatisfactory	927	29.42%
<b>Cleanliness in OPD</b>		
Satisfactory	2464	78.22%
Unsatisfactory	686	21.73%
<b>Facility of drinking water</b>		
Satisfactory	2155	68.41%
Unsatisfactory	995	31.59%
<b>Washroom/ Toilet facility</b>		
Satisfactory	1041	33.04%
Unsatisfactory	1466	46.54%
Not used	643	20.42%
<b>Finding concerned department in OPD</b>		
Easy	2637	83.71%
Difficult	513	16.29%
<b>Finding Pharmacy / Laboratory</b>		
Easy	2448	77.71%
Difficult	702	22.29%

78.28% of participants reported convenience in locating the hospital while 88.22% of the

participants were satisfied with the timings of the OPD. 26.70% were unsatisfied with

information charts in the OPD building & 56.25% were unsatisfied with enquiry section. Seating arrangement in OPD (70.57%), drinking water facility (68.41%), & cleanliness of OPD (78.22%) found to be good. 46.54% of total

participants were not satisfied with available toilet facility in the hospital. 83.71% respondents could easily find the concerned department while 77.71 % could find easily pharmacy or laboratory. [Table No.2]

**Table 3: Distribution of responses according to clinical care received**

Variable	Total no. of respondents ( n= 3150)	
<b>Availability of doctor in OPD</b>		
Satisfactory	2886	89.71%
Unsatisfactory	324	10.29%
<b>Approach by the doctor</b>		
Satisfactory	2591	82.25%
Unsatisfactory	559	17.75%
<b>Communication by the doctor</b>		
Satisfactory	2249	71.39%
Unsatisfactory	901	28.36%
<b>Explanation of the disease to patient</b>		
Satisfactory	2625	83.33%
Unsatisfactory	525	16.67%
<b>Efficiency of the doctor</b>		
Satisfactory	2477	78.63%
Unsatisfactory	673	21.37%
<b>Services by paramedical staff</b>		
Satisfactory	2154	68.38%
Unsatisfactory	996	31.62%
<b>Any language problem faced?</b>		
Yes	198	06.28%
No	2952	93.72%

89.71% respondents were satisfied with availability of doctors in OPD. 82.25% respondents found the approach of the doctors satisfactory, 71.39% found the communication by the doctors good. Only 16.67% respondents were unsatisfied with the explanation of the disease given by doctor & 21.37% respondents

were in doubt about the efficiency of the doctor. Services by paramedical staff in OPD were found to be satisfactory by 68.38% respondents. Only 6.28% respondents had language problems in communication during OPD visit. [Table No.3]

**Table 4: Distribution of responses regarding perceived waiting time**

Variable	Total no. of respondents ( n= 3150)		Mean ±SD ( in Minutes)
<b>Time for registration</b>			
Convenient	1424	45.20%	20.3±7.97
Inconvenient	1726	54.80%	
<b>Time to get concerned dept.</b>			
Convenient	2161	68.60%	9.8±2.57
Inconvenient	989	31.40%	
<b>Waiting time in concerned dept.</b>			
<30 min	497	15.77%	53.4±18.9
30-60 min	2088	66.30%	
> 60 min	505	17.93%	
<b>Time for consultation &amp; examination by doctor</b>			
Satisfactory	2168	68.82%	10.2±5.6
Unsatisfactory	982	31.18%	
<b>Time required for investigations</b>			
Satisfactory	1227	38.95%	93.2±28.3
Unsatisfactory	1090	34.61%	
Not advised	833	26.44%	
<b>Time required to locate &amp; actual time spent in pharmacy</b>			
Satisfactory	1616	51.30%	35.3±16.5
Unsatisfactory	1534	48.70%	

With regard to perceived waiting time, 54.8% participants found that the time required for registration was inconvenient for them (Mean time  $20.3 \pm 7.97$ ). Similarly, 31.4% participants reported inconvenience in finding concerned department. (Mean time  $9.8 \pm 2.57$ ). Waiting time outside the concerned department was found to be less than 30 min in 15.77% cases, 30-60 min

in 66.3% cases & more than 60 min in 17.93% cases. Time taken for consultation & examination by doctor was found to be satisfactory in case of 68.82% participants. 38.95% of total respondents were unsatisfied with time required for investigations while 48.7% were unsatisfied with time spent in pharmacy. [Table No.4]

**Table 5: Distribution of responses according to respondent's perception of health care services.**

Variable	Total no. of respondents ( n= 3150)	
<b>Patient's perception regarding the cost</b>		
<b>Cost of registration</b>		
Satisfactory	2229	70.76%
Unsatisfactory	921	29.24%
<b>Cost of the investigations</b>		
Satisfactory	1652	52.44%
Unsatisfactory	1498	47.56%
<b>Patient's perception regarding necessity of investigations</b>		
Necessary	3033	96.28%
Unnecessary	117	3.72%
<b>Patient's perception regarding number of investigations</b>		
Necessary	2526	80.19%
Unnecessary	624	19.81%
<b>Patient's perception regarding Nature of given prescription</b>		
Simple & Easy	2178	69.14%
Complex & Difficult	972	30.86%
<b>Instructions received for taking medications</b>		
Satisfactory	1716	54.47%
Unsatisfactory	606	19.23%
Not received	828	26.30%
<b>Patient's perception regarding availability of prescribed drugs</b>		
Satisfactory	1273	40.41%
Unsatisfactory	1877	59.59%
<b>Patient's perception regarding necessity of outside medications, if prescribed</b>		
Necessary	2467	78.31%
Unnecessary	683	21.69%
<b>Patient's perception regarding Related Health education</b>		
Satisfactory	1472	46.74%
Unsatisfactory	607	19.26%
Not received	1071	34.00%
<b>General remark over experience in the hospital</b>		
Excellent	698	22.15%
Good	922	29.26%
Average	945	30.00%
Poor	277	8.79%
Very poor	308	9.80%

A total of 96.28% of the respondents gave an opinion that the investigations conducted were necessary but 19.81% respondents were unsatisfied with number of investigations. 76.32% were satisfied by interpretation of investigation reports. The nature of prescription was found to be "Complex & Difficult" in case

of 30.86% respondents while 19.23% were unsatisfied with the instructions given regarding medications. Most importantly, 59.59% were unsatisfied with the availability of prescribed drugs & 21.69% were in oppose to purchase medicines from outside the hospital pharmacy. Total 66% received related health education but

19.26% were unsatisfied with the given health education while 34% did not received any of the health education. 29.24% respondents were unsatisfied with the cost of registration while 47.56 % were unsatisfied with the cost of investigations. When asked to rate /scale overall availability of services experienced by the patient during their visit, as per Likert's scale, it was Excellent for 22.15%, Good for 29.26%, Average for 30%, Poor for 8.79% & Very Poor for 9.8% respondents.[Table No.5]

## Discussion:

Patient satisfaction is a relatively new area of study under Health System Researches which is based on their perception of the treatment and not the quality of the treatment per se.<sup>4</sup> The present study made an attempt to focus on various aspects of health care provided in Government tertiary level hospital in Maharashtra state in relation with patient's perception of satisfaction.

Regarding ambient OPD environment, most of the respondents were satisfied about the location of the hospital, timings of the OPD, seating arrangement, cleanliness, drinking water facility & information charts. But, they experienced unsatisfaction towards Enquiry section (56.25%) and toilet facility (46.53%).

Being a Government tertiary care hospital, large number of patients visits to the hospital. It could have been impossible to answer every query of patients or their relatives, during OPD timings. Similarly, considering large number of people visiting hospital toilets during OPD peak hours where possibly, non availability & lack of cleanliness could have resulted in dissatisfaction of respondents. Similar observations were made by Acharya and Acharya<sup>5</sup> in their study conducted at Mangalore. Bleich SN et al<sup>6</sup> in another study have shown comparable results that people's satisfaction with the health care system depends more on factors external to the health system

10.29% respondents were dissatisfied about adequate numbers of doctors. Majority i.e. 85.25% respondents were satisfied with approach of the doctors but when it comes to doctor-patient communication, the numbers of satisfied respondents were reduced to 71.39%

This is in line with the study of Sing MM et al<sup>7</sup> (2003) conducted in Delhi.

Clinical care is the crux of hospital care services and considering approach, communication & explanation of the disease, 78.63% respondents were satisfied with efficiency of the doctor, while 68.38% were satisfied with Paramedical staff services. Most of the respondents (83.33%) were convinced about explanation of the ill health of the patient by the doctors. Even though, this institute is located near inter-state border, very few study participants (6.28%) had language problem during OPD visit. These observations of the present study were comparable with the study carried out by Prasanna et al<sup>8</sup>, Acharya and Acharya<sup>5</sup>, Sing MM et al<sup>7</sup>, Miseviciene I et al<sup>9</sup>, Polluste K et al<sup>10</sup>, Erriksson U et al<sup>11</sup>.

Time required for getting registered was found to be unsatisfactory (54.8%) in present study by the respondents, while owing to good information charts displayed in OPD, time required to get concerned department was satisfactory (68.6%). Contrary to our study findings, Prasanna et al<sup>8</sup> in their study reported that, time gap between coming to OPD and getting registered was found to be satisfactory while studies conducted by Poulton BC<sup>2</sup>, Sing MM et al<sup>7</sup>, Sanmartin et al<sup>12</sup>, Thompson DA et al<sup>13</sup> reported dissatisfaction towards higher waiting period.

Mean time recorded, to consult the concerned doctor after registration was 53.4±18.9 minutes. Dissatisfaction of respondents to longer waiting time in concerned department could be attributed to heavy load of patients visiting to the OPD of this regional health centre.

Actual mean time required for consultation and examination by doctors was 10.2±5.6 min to which 31.18% respondents were unsatisfied. Mean time required for investigations was highest i.e. 93.2±28.3min. Completing the investigations was time consuming as patients had to go through various stages like, locating the laboratory, depositing the fees of investigations at the cashier counter & time spent in actual laboratory procedure. This might be the possible reason of dissatisfaction of respondents towards longer waiting time required for investigations. Comparable results were shown by Chandwani et al<sup>14</sup> in a study

conducted at Gujarat. Mean time spent in pharmacy was  $35.3 \pm 16.5$  min. This also can be attributed to heavy drain of patients to the hospital. When time spent in pharmacy was analyzed, 48.7% respondents were unsatisfied which is in line with the study findings of Acharya & Acharya<sup>5</sup> and Prasanna et al<sup>8</sup> who reported 47% & 49% of dissatisfaction respectively.

When available health services were analyzed according to respondent's perception, 29.54% were unsatisfied with the cost of registration while 47.56% were unsatisfied with the cost of investigations. These study observations were unlike the observations made by Prasanna et al<sup>8</sup> who showed 100% satisfaction towards cost of registration while only 24% dissatisfaction towards cost of investigations. Most of the patients coming to government hospital belong to lower socioeconomic strata and recent hike in the cost of hospital services could be the reason for higher dissatisfaction in the present study.

Majority of the respondents perceived the necessity of investigations as "Necessary" & advised numbers of investigations were also "Necessary". 30.86% participants found nature of given prescription "complex and difficult" while 26.3% participants did not received any instructions related to medications. Acharya and Acharya<sup>5</sup> made similar observations in their study conducted at Mangalore.

59.59% participants were unsatisfied with Non-availability of prescribed drugs in the hospital & when asked to purchase those medications from outside, 21.69% participants were dissatisfied. The possible reason could be due to shortage of drug supply which in turn due to stringent rules of drug purchase in Government policies, rising costs of drugs & inadequate hospital budget. Rao KD et al<sup>3</sup> and Sing MM et al<sup>7</sup> in two different studies in Delhi also noted that, important issue in assessing hospital services by consumers is satisfied supply of drugs.

Prevention is better than cure. And for this, continued health education should be imparted to everybody. But only 46.74% respondents received appropriate health education while 34% did not received any sort of health education at all either from the treating doctors or other health care providers. The heavy load of patients in the institute as well as due to time constraints,

it would have not been possible to impart health education to each and every patient. It could have lead to dissatisfaction of respondents. This fact has been tested by various researchers.<sup>3, 8, 15</sup>

When respondents were asked to rate the overall experience they had in the OPD of this institute, 81.41% reported Good to Average experience while only 18.59% respondents rated Poor to Very Poor experience.

### Conclusions:

Health system research is essential for the continuous evolution and refinement of health services. As a part, Patient satisfaction surveys are increasingly used to measure consulting quality and outcome. The present study also aimed to determine how patients evaluate their experiences which will be valuable to make transformational changes in health care delivery and services.

Majority of the respondents in present study gave positive responses towards location of the hospital, timings of the OPD, seating arrangement, cleanliness, drinking water facility & information charts. Availability of doctors, approach and communication with doctors, explanation of the disease by the doctors, services by paramedical staff & efficiency of doctors have satisfied the respondents. While, negative responses were given for Enquiry section, toilet facility, cost of investigations, availability of medications and waiting time for registration, investigations & in dispensary.

### Recommendations:

To cut down the longer waiting time, few more counters should be made available at registration and dispensary counter atleast during peak hours. Fees for investigations should preferably collect in laboratory itself. Improvement should be sought in toilet facilities and in Enquiry section. Regular and adequate supply of funds for drug purchase should be made.

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