

Patient satisfaction regarding the services given in the inpatient department of a tertiary care hospital of Western Maharashtra.

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Abstract:

Background: Patient satisfaction is an important factor to assess the quality of health care services. Measuring patient satisfaction in hospitalized patients will help us to know the quality of care provided by the hospital. This study was conducted with objective to measure the level of patient satisfaction towards the services provided in the inpatient department of a tertiary care hospital of Western Maharashtra.

Materials and Methods: In the present cross-sectional study carried out in a tertiary care hospital patients satisfaction level was assessed in 180 patients by PSQ 18. All patients who had completed at least 48 hours after their admission in the hospital were interviewed during the time of their discharge till the required number of patients to be selected from each ward was reached.

Data analysis: Data entry and analysis was done in Microsoft Excel. The mean scores in each scale of the PSQ 18 and percentage of satisfaction was calculated based on the scores obtained.

Results: The mean age of all the participants was 40.78 ± 15.21 years. The percentage of female participants (57.20%) was more than male participants (42.80%). The mean age of the male participants was 40.94 ± 15.68 years and that of the female participants was 40.65 ± 14.92 years. Participants from rural area (52.20%) were more than urban area (47.80%). The mean score was found to be the highest for financial aspects (4.03 out of 5), followed by technical quality (4.02 out of 5), communication (3.99 out of 5), general satisfaction (3.91 out of 5), accessibility and convenience (3.81 out of 5), interpersonal manner (3.52 out of 5) and the least for time spent with doctor (3.35 out of 5) With the scores of all the seven scales combined, the level of satisfaction of the patients in the tertiary care hospital in our study was 76.62%.

Conclusion: A high level of patient satisfaction in the scale of financial aspects tells us that the patients were most satisfied with the affordable health care services provided by the hospital. The low score of patient satisfaction in the scale of time spent with doctor indicates that doctors need to spend more time when attending the patients, and this will be facilitated when the number of doctors working in the hospital are increased which will also help to decrease the workload on them. The study findings showed that altogether, there was a good level of patient satisfaction regarding the health care services given by the hospital

Key Word: Patient satisfaction, inpatient department, PSQ 18

Date of Submission: 05-03-2022

Date of Acceptance: 21-03-2022

I. Introduction:

Patient satisfaction may be defined as the way a patient feels and their perception regarding the health care services that they are receiving.¹ It is important to understand that the hospitalized patients are the ones who spread the good image about the hospital in the society. Patient satisfaction shows the extent to which the basic health needs and expectations of the patients are met as per their requirements and so it can be used to measure the quality of care provided by a hospital.²

Any health care organization takes proper care and ensures that its patients receive good quality health care services.³ As the health care delivery services in India are growing very rapidly, their quality is an important component of management in both the government and private health sectors. And so, it is important to measure the level of patient satisfaction towards these services. It helps in efficient hospital management.⁴

It has been found that more the level of patient satisfaction in a hospital, more is the possibility that the patients will follow medical advice and more will be the compliance and attendance during follow up visits leading to a better outcome.⁵

Patient satisfaction is an important factor to assess the quality of health care services.⁶ Many studies have shown that there is a direct association between the quality of health care services provided by a hospital and the satisfaction level of its patients.⁷

A better understanding of the level of patient satisfaction in a hospital would help the administrators in that hospital to take proper decisions to provide health services to the people.⁸

In the outpatient departments, the basic needs of patients are well met compared to the inpatient departments as the duration of hospital stay is more in hospitalized patients. And so measuring patient satisfaction in hospitalized patients will help us to know the quality of care provided by the hospital.⁹

This study was conducted with objective to measure the level of patient satisfaction towards the services provided in the inpatient department of a tertiary care hospital of Western Maharashtra.

II. Methodology:

Present study was a cross sectional study carried out during January and February 2022 in a tertiary care hospital with a total bed strength of 390 beds. The sample size calculated by the formula- $N = Z^2_{(1-\alpha/2)} PQ/L^2$ with 95% confidence level, 8% allowable error and assuming proportion of satisfaction level 50% (since this would provide the maximum sample size) was 150. Assuming a 20 % nonresponse rate, the final sample size was approximated to 180. The following wards in the hospital having a major number of admissions were selected. The bed strengths of these inpatient wards are given below. Stratified sampling with population proportionate to sample size was used to select the number of patients from the wards in the hospital.

Sr. no.	Ward	Bed strength	Sample
1	Medicine	75	38
2	Surgery	45	23
3	OBGY	90	45
4	Pediatrics	45	23
5	Orthopedics	37	19
6	ENT	43	22
7	Ophthalmology	20	10
	TOTAL	355	180

All patients who had completed at least 48 hours after their admission were interviewed during the time of their discharge till the required number of patients to be selected from each ward was reached.

Inclusion criteria:

- All patients who had completed at least 48 hours since their admission.
- All patients who were scheduled to be discharged on the day of the interview.

Exclusion criteria:

- Patients who were too ill to participate in the interview.
- Those patients who were not willing to participate

Study tool:

The Patient Satisfaction Questionnaire Short Form (PSQ 18) was used to interview the participants. Demographic information such as age, gender, residence, education and occupation of the participants was also taken. The PSQ 18 is a pretested structured questionnaire developed by Marshall and Hays.¹⁰ The PSQ 18 was developed through a lot of research and from larger questionnaires.^{11,12} The content validity and reliability of the PSQ 18 has been confirmed through the previous studies that used it.^{13,14}

Instructions for scoring the PSQ 18:

There are 18 statements in the PSQ 18. It is a Likert scale questionnaire having seven dimensions of patient satisfaction: General satisfaction, Technical quality, Interpersonal manner, Communication, Financial aspects, Time spent with doctor, Accessibility and convenience. Some statements in the PSQ 18 are constructed in a manner that agreement means satisfaction with medical care, whereas other statements are constructed so that agreement means dissatisfaction with medical care. The statements 1,2,3,5,6,8,11,15 and 18 in the scale have original response vales as 1,2,3,4,and 5 and score values as 5,4,3,2 and 1 respectively. The statements 4,7,9,10,12,13,14,16 and 17 in the scale have original response vales as 1,2,3,4 and 5 and score values as 1,2,3,4 and 5 respectively.

All statements have to be scored in a manner that high scores reflect satisfaction with medical care. The scores of the statements within the same subscale must be averaged together to get the seven subscale scores.¹⁰ Statements within each scale are averaged after scoring.

Creating the scale scores	
Scale	Average the scores of these statements
General satisfaction	3 and 17
Technical quality	2,4,6 and 14
Interpersonal manner	10 and 11
Communication	1 and 13
Financial aspects	5 and 7
Time spent with doctor	12 and 15
Accessibility and convenience	8,9,16 and 18

Before conducting the study, permission was obtained from the concerned authority and ethical approval was obtained from the Institutional Ethics Committee. The nature and purpose of the study were explained to the participants. Informed consent was obtained verbally from the participants before conducting the interview. The participants were informed that all their answers would be kept confidential. The statements of the PSQ 18 questionnaire were translated into local language. In the case of patients less than 18 years of age, information was obtained from their parents or other adults who were with the patient.

Data analysis: Data entry and analysis was done in Microsoft Excel. The mean scores in each scale of the PSQ 18 and percentage of satisfaction was calculated based on the scores obtained.

III. Results:

Table 1 shows the sociodemographic information of the study participants. The mean age of all the participants was 40.78 ± 15.21 years. The percentage of female participants (57.20%) was more than male participants (42.80%). The mean age of the male participants was 40.94 ± 15.68 years and that of the female participants was 40.65 ± 14.92 years. Participants from rural area (52.20%) were more than urban area (47.80%). There were 24 patients in the age group of 1 to 20 years. Majority of the participants (58.33%) were in the age group 21 to 40 years. The mean age of the participants in the age group of 21 to 40 years was 30.10 ± 4.53 years, in the age group 41 to 60 years it was 48.87 ± 5.95 years and in the age group 61 to 80 years it was 69.03 ± 4.50 years. Unemployed participants (76.10%) were more than employed participants (23.90%).

Table 1: Demographic information of study participants

Demographic characteristics		Frequency	Percent
Gender	Male	77	42.80
	Female	103	57.20
Residence	Urban	86	47.80
	Rural	94	52.20
Age (years)	1 to 20	24	13.33
	21 to 40	82	45.55
	41 to 60	47	26.11
	61 to 80	27	15.00
Occupation	Employed	43	23.90
	Unemployed	137	76.10
Education	Illiterate	44	24.40
	Primary school	27	15.00
	High school	22	12.22
	SSC	46	25.50
	HSC	28	15.50
	Graduate	13	7.20

Table 2: Scores obtained for the scales and each statement of PSQ 18

Statement of PSQ 18	Mean	SD
General satisfaction (mean=3.91, SD=0.46)		
• The medical care I have been receiving is just about perfect	4.03	0.18
• I am dissatisfied with some things about the medical care I receive	3.80	0.60
Technical quality (mean=4.02, SD=0.18)		
• I think my doctor's office has everything needed to provide complete medical care	4.01	0.2
• Sometimes doctors make me wonder if their diagnosis is correct	4.03	0.18
• When I go for medical care, they are careful to check everything when treating and examining me	4.03	0.16
• I have some doubts about the ability of the doctors who treat me	4.04	0.19
Interpersonal manner (mean=3.52, SD=0.88)		
• Doctors are too businesslike and impersonal towards me	3.01	0.99
• My doctors treat me in a very friendly and courteous manner	4.03	0.22
Communication (mean=3.99, SD=0.24)		
• Doctors are good about explaining the reason for medical tests	3.96	0.30
• Doctors sometimes ignore what I tell them	4.01	0.21
Financial aspects (mean=4.03, SD=0.17)		

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<ul style="list-style-type: none"> I feel confident that I can get the medical care I need without being set back financially I have to pay for more of my medical care than I can afford 	4.02 4.04	0.13 0.20
Time spent with doctor (mean=3.35, SD=0.94) <ul style="list-style-type: none"> Those who provide my medical care sometimes hurry too much when they treat me Doctors usually spend plenty of time with me 	3.74 2.95	0.67 1.00
Accessibility and convenience (mean=3.81, SD=0.66) <ul style="list-style-type: none"> I have easy access to the medical specialists I need Where I get medical care, people have to wait too long for emergency treatment. I find it hard to get an appointment for medical care right away I am able to get medical care whenever I need it 	3.79 4.10 3.31 4.02	0.60 0.30 0.95 0.14

Table 2 shows the mean of the scores obtained for each scale and each statement of PSQ 18. The mean score was found to be the highest for financial aspects (4.03 out of 5), followed by technical quality (4.02 out of 5), communication (3.99 out of 5), general satisfaction (3.91 out of 5), accessibility and convenience (3.81 out of 5), interpersonal manner (3.52 out of 5) and the least for time spent with doctor (3.35 out of 5).

Table 3: Distribution of study population based on sociodemographic information and various domains of patient satisfaction (n=180)

sociodemographic information		Frequency (%)	Mean ± SD							
			General satisfaction	Technical quality	Interpersonal manner	Communication	Financial aspects	Time spent with doctor	Accessibility and convenience	Satisfaction in all domains
Gender	Male	77 (42.8)	3.91±0.46	4.03±0.23	3.58 ±0.86	3.98±0.28	4.04 ±0.19	3.42 ±0.90	3.86±0.63	3.86±0.59
	Female	103 (57.2)	3.92 ±0.45	4.01±0.13	3.48±0.89	3.99±0.22	4.02±0.15	3.29±0.96	3.76±0.68	3.81±0.62
Age groups	1 to 20	24 (13.33)	4±0	4 ±0	3±1.41	4±0	4±0	4±0	4±0	3.89±0.47
	21 to 40	82 (45.56)	3.91±0.46	4.02±0.20	3.55±0.86	3.99±0.24	4.03±0.19	3.40±0.91	3.82±0.65	3.84±0.60
	41 to 60	47 (26.10)	3.89±0.51	4.02±0.16	3.42±0.94	3.96 ±0.27	4.03±0.17	3.19±0.99	3.71±0.76	3.77±0.68
	61 to 80	27(15.00)	3.98±0.30	4.02±0.16	3.57±0.81	4±0.19	4±0	3.44±0.90	3.89±0.49	3.87±0.52
Residence	Urban	86 (47.80)	3.88±0.51	4.02±0.21	3.49±0.90	3.98±0.31	4.02±0.16	3.34±0.95	3.80±0.67	3.82±0.63
	Rural	94 (52.20)	3.94±0.40	4.02±0.15	3.54±0.86	3.99±0.16	4.03±0.17	3.35±0.93	3.81±0.65	3.83±0.59
Education	Illiterate	44 (24.40)	3.89±0.48	4±0.18	3.48±0.90	3.96±0.32	4.01±0.10	3.28±0.98	3.74±0.71	3.79±0.64
	Primary school	27 (15.00)	4.03±0.19	4.03±0.18	3.40±0.92	3.98±0.30	4.01±0.13	3.16±0.98	3.79±0.65	3.80±0.63
	High school	22 (12.20)	3.95±0.30	4.01±0.10	3.61±0.78	4±0	4.02±0.15	3.60±0.81	3.84±0.60	3.87±0.51
	SSC	46 (25.50)	3.89±0.52	4.05±0.22	3.56±0.86	4.02±0.14	4.06 ±0.24	3.34±0.94	3.84±0.66	3.85±0.62
	HSC	28 (15.50)	3.84±0.60	4.03±0.18	3.57±0.91	3.96±0.32	4.01±0.13	3.50±0.87	3.81±0.70	3.84±0.61
	Graduate	13(07.20)	3.92±0.39	4±0	3.46±0.90	4±0	4.04±0.19	3.23±0.99	3.84±0.53	3.81±0.59
Occupation	Employed	43 (23.90)	3.89 ±0.48	4.05±0.23	3.60±0.88	3.98±0.28	4.07±0.25	3.39±0.92	3.89±0.64	3.87±0.61
	Unemployed	137(76.10)	3.92±0.45	4.01±0.16	3.49±0.88	3.99±0.23	4.01±0.13	3.33±0.94	3.78±0.67	3.81±0.61

Table 3 shows the mean scores of various domains of patient satisfaction and satisfaction in all domains according to the sociodemographic variables.

Table 4 shows the level of satisfaction in percentage in terms of different domains of patient satisfaction. It tells us that with the scores of all the seven scales combined, the level of satisfaction of the patients in the tertiary care hospital in our study was 76.62%.

Table 4: Calculation of level of satisfaction in terms of different domains of patient satisfaction

	Average of statements	Maximum mean	Average of scores obtained (mean±SD)	Satisfaction in percentage (mean/maximum mean * 100)
General satisfaction	3 and 17	5	3.91±0.46	78.33%
Technical quality	2,4,6 and 14	5	4.02±0.18	80.52%
Interpersonal manner	10 and 11	5	3.52±0.88	70.44%
Communication	1 and 13	5	3.99±0.24	79.78%
Financial aspects	5 and 7	5	4.03±0.17	80.60%
Time spent with doctor	12 and 15	5	3.35±0.94	67%
Accessibility and convenience	8,9,16 and 18	5	3.81±0.66	76.16%
Satisfaction in all domains	All 18 statements	5	3.83±0.61	76.62%

IV. Discussion:

The results derived from the study showed that the level of satisfaction was highest for financial aspects (4.03 out of 5) and the least for time spent with the doctor (3.35 out of 5). The level of patient satisfaction with all the seven scales combined was 76.62% with a mean value of 3.83 out of 5. The level of patient satisfaction found out through this study was more in comparison to studies done by Asraf et al.^[15] (level of patient satisfaction 61%), Holikatti et al.^[16] (55.30%) and Mahapatra et al.^[17] in Andhra Pradesh (63%). The patient satisfaction level in this study was low compared to the findings of the studies done by Deva et al.^[18] in Kashmir (80%), Solanki et al.^[19], Ziaei et al.^[20] (mean 4.0) and Kumari et al.^[21] in Lucknow (81.60%).

The mean value for financial aspects (4.03 out of 5) was the highest among the seven scales of patient satisfaction. It was found that all the seven scales of PSQ 18 (general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor, accessibility and convenience) in this study had higher scores when compared with the findings of the study conducted by Chander V et al.^[22]

The patient satisfaction level of this study was higher (76.62%) when compared with the findings of studies on patient satisfaction conducted by Khatun et al.^[23] in Dhaka and Abbasi-Moghaddam et al.^[24] in Tehran which showed the patient satisfaction level of 65.80% and 57% respectively in case of outdoor patients.

The scores of patient satisfaction in this study when compared with the study done by Gaur BP et al.^[25], it was found that all the scales except time spent with doctor had higher scores.

In this study the mean value of the scores was the highest for the scale of financial aspects (4.03 out of 5). Patient satisfaction level in this scale comes out to be 80.60%. The statements of the PSQ 18 that come under this scale are:

- I feel confident that I can get the medical care I need without being set back financially (4.02 out of 5).
- I have to pay for more of my medical care than I can afford (4.04 out of 5).

This tells us that the hospital provides health care services to the patients at a cost that they can afford.

The mean score was lowest for the scale, time spent with doctor (3.35 out of 5). The score for this scale, although lowest in this study is similar to that in the study done by Gaur BP et al.^[25] (3.4 out of 5) and is higher than the score found by the study done by Chander V et al.^[22] (2.97 out of 5).

The statements of the PSQ 18 that come under this scale are:

- Those who provide my medical care sometimes hurry too much when they treat me (3.74 out of 5).
- Doctors usually spend plenty of time with me (2.95 out of 5).

The probable reason for the score in this scale being low in this study when compared with the other scales is the high number patients in the hospital that the doctors have to care for. Usually there are more patients attending government health care facilities because of the high cost of treatment in private health care facilities. The number of doctors in government health care facilities is less when compared with the number of patients that they have to look after, and this causes overworking of the doctors and leaves them less time for attending each patient.

V. Conclusion:

The findings of the study showed that there was a high level of patient satisfaction in the scale of financial aspects which tells us that the patients were most satisfied with the affordable health care services provided by the hospital. The low score of patient satisfaction in the scale of time spent with doctor when compared with the other scales of the questionnaire in the study indicates that doctors need to spend more time when attending the patients, and this will be facilitated when the number of doctors working in the hospital are increased which will also help to decrease the workload on them. The study findings showed that altogether, there was a good level of patient satisfaction regarding the health care services given by the hospital.

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