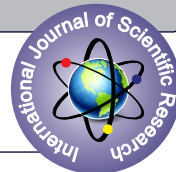


COMPARISON OF INTERDEPARTMENTAL SATISFACTION OF PATIENTS ACROSS SOCIO-DEMOGRAPHIC AND CLINICAL PARAMETERS IN A MEDICAL COLLEGE HOSPITAL IN MAHARASHTRA



Clinical Research

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ABSTRACT

Background- Few studies have evaluated interdepartmental patient satisfaction.

Purpose- This study was done to compare inpatient satisfaction levels across socio-demographic factors and across different specialties.

Procedure- it was a cross-sectional study. 30 patients each from Medicine, Surgery and OBGY department were interviewed using a structured questionnaire. Statistical analysis was done using Fischer's exact test.

Findings- The average satisfaction score was 65.9%. The patient satisfaction scores were higher in males, 20-40 age group, socio economic status other than upper lower and longer indoor stay patients. The patient satisfaction scores were statistically significantly higher in Surgery department followed by Medicine department. The scores were lowest in OBGY department. Satisfaction score in females was low in all three departments.

Conclusion- Small sample size and evaluation of limited components for patient satisfaction are the drawbacks of the study. Future studies measuring patient perceptions of health services with larger sample size is recommended.

KEYWORDS

inpatient satisfaction, socio-demographic factors, interdepartmental comparison.

Introduction-

Patient satisfaction is one of the established parameter to measure success of the services that is provided in the hospitals. (1) Satisfaction among patients has been shown to result in better quality of work and less burnout of healthcare providers. (2-5) It has been observed that satisfied patients are more compliant and more likely to participate in their treatment. (6) In modern times when expectation from healthcare institutions are increasing and level of satisfaction is decreasing, leading to increased number of legal suits and physical manhandling of medical professionals, it is very important to know about patient satisfaction. (7) Recently developing countries, influenced heavily by findings of developed countries, are increasingly interested in evaluating the quality of health care services. (8) Few studies have evaluated patient satisfaction with physicians across different specialties. (9) This study was done a. To find associations between socio-demographic factors and patient satisfaction levels and b. To compare the satisfaction among inpatients of Medicine, Surgery and OBGY departments of a Medical College Hospital in a 2 tier city in Maharashtra.

Method- this was a cross-sectional study conducted in May 2015 among patients admitted in departments of Medicine, Surgery and OBGY. Patients who spent at least one night in the facility were included. Patient working in the health care facility and patient with serious physical or mental disorder which could interfere with questioning were excluded. Patients were interviewed for socio-demographic and clinical factors (age, gender, family income, education, occupation, marital status, religion, duration of indoor stay). 30 patients from each department were interviewed using a structured questionnaire. Patient satisfaction was evaluated for 6 components viz. (a) medicine availability, (b) medical information received, (c) doctor behavior, (d) staff behavior, (e) hospital facilities and (f) overall level of satisfaction. These components were adopted from Patients' Perception of Quality questionnaire. (10) The responses were labeled as "agree", "disagree". Verbal consent was taken from patients before interviewing. Patients were ensured about confidentiality. Descriptive statistics was carried out by calculating the mean and standard deviation for the continuous variables, and the number and percentage for the categorical variables. Inferential statistics was carried out by using the Fischer's exact test. The 2 tailed P values < 0.05 were considered statistically significant.

Results and discussion- Total 90 patients were included in the study.

Table-1 Socio-demographic and clinical profile

Demographic parameters	No. of patients (n=90)
Gender	
Male	38(42.22%)
Female	52(57.78%)

Age group (13-89 years)	
13-19 years	10(11.11%)
20-40 years	52 (57.78%)
41-65 years	20(22.22%)
>66 years	8(8.89%)
Income Re/ month (Re 3000-16000/ month)	
<2000	1(1.11%)
3000-4000	20(22.22%)
5000-7000	37(41.11%)
8000-11000	24(26.67%)
>15000	8(8.89%)
Education	
Illiterate	18(20%)
Primary school	20(22.22%)
Secondary school	18(20%)
SSC	17(18.89%)
HSC	14(15.56%)
Graduate	3(3.33%)
Occupation	
Unemployed	1(1.11%)
Student	7(7.78%)
Housewife	39(43.33%)
Unskilled	13(14.44%)
Semiskilled	8(8.89%)
Skilled	2(2.22%)
Clerical, farmer	18(20%)
semiprofessional	2(2.22%)
Marital status	
Married	79(87.78%)
Single	5(5.56%)
Below age of marriage	6(6.67%)
Socioeconomic status	
Lower	10(11.11%)
Upper lower	69 (76.67%)
Lower middle	9(10%)
Upper middle	2(2.22%)
Religion	
Hindu	81 (90%)
Others	9(10%)
Duration of admission	
< ten days	67 (74.44%)
>ten days	23(25.55%)

Age mean±SD was 36.58±17.89. The family income was Re 3000-11000/ month in 90% of patients. Average income was Re 7050/ month. Around 62% had not completed their matriculation. Around

88% were from lower or upper lower socioeconomic status as per the Kuppuswamy classification. Duration of admission ranged between 2 days to 3 months

Table-2 Patient's level of satisfaction regarding availability of medicines, medical information received, doctor behavior, staff behavior, hospital facilities and overall level of satisfaction

N=90 Agree/ Disagree	Medicine N=30 Agree/ Disagree	Surgery N=30 Agree/ Disagree	OBGYN N=30 Agree/ Disagree
Availability of medicines			
This hospital has all the essential medicines			
84 (93.33%)/ 6(6.67%)	29 (96.67%)/ 1(3.33%)	27 (90%)/ 3 (10%)	28 (93.33%)/ 2 (6.66%)
Medical information received			
The doctors gave you advice about ways to avoid illness and stay healthy			
86 (95.56%)/ 4(4.44%)	29(96.67%)/ 1(3.33%)	28(93.33%)/ 2(6.66%)	29(96.67%)/ 1(3.33%)
The doctor gave you complete information about your illness			
77 (85.56%)/ 13(14.44%)	29(96.67%)/ 1(3.33%)	28(93.33%)/ 2(6.66%)	20(66.66%)/ 10(33.33%)
The doctor gave you complete information about your treatment			
72 (80%)/ 18(20%)	25(83.33%)/5(16.66%)	27(90%)/ 3(10%)	20(66.66%)/ 10(33.33%)
Doctor behavior			
You are given enough time to tell the doctor everything			
64 (71.11%)/26(28.88%)	17(56.66%)/13(43.33%)	26(86.66%)/4(13.33%)	21(70%)/9(30%)
Doctors listen carefully to what you have to say			
56 (62.22%)/ 34 (37.77%)	16(53.33%)/14(46.66%)	24(80%)/6(20%)	16(53.33%)/14(46.66%)
The doctor checks patients properly			
66 (73.33%)/24(26.66%)	14(46.66%)/16(53.33%)	29(96.67%)/1(3.33%)	23(76.66%)/7(23.33%)
The doctor is always ready to answer your questions			
47(52.22%)/43(47.77%)	11(36.66%)/19(63.33%)	24(80%)/6(20%)	12(40%)/18(60%)
Staff behavior			
Hospital workers talk politely			
72(80%)/18(20%)	21(70%)/9(30%)	28(93.33%)/2(6.66%)	23(76.66%)/7(23.33%)
Hospital workers are helpful to you			
63 (70%)/27(30%)	17(56.66%)/13(43.33%)	27(90%)/3(10%)	19(63.33%)/11(36.66%)
Hospital facilities			
The cleanliness of the hospital is adequate			
34 (37.77%)/56 (62.22%)	8(26.66%)/22(73.33%)	20(66.66%)/10(33.33%)	6(20%)/24(80%)
The condition of the toilets are good			
10 (11.24%)/80 (88.88%)	2(6.66%)/28(93.33%)	6(20%)/24(80%)	2(6.66%)/28(93.33%)
Drinking water is easily available in the hospital			
29 (32.22%)/61 (67.77%)	11(36.66%)/19(63.33%)	9(30%)/21(70%)	9(30%)/21(70%)
Overall level of patient's satisfaction			
Overall satisfaction with hospital services			
60 (66.66%)/30(33.33%)	19(63.33%)/11(36.66%)	29(96.67%)/1(3.33%)	12(40%)/18(60%)
Overall satisfaction with treatment			
65 (72.22%)/25(27.77%)	22(73.33%)/8(26.66%)	27(90%)/3(10%)	16(53.33%)/14(46.66%)
Value for money spent			
64 (71.11%)/26(28.88%)	19(63.33%)/11(36.66%)	28(93.33%)/2(6.66%)	17(56.66%)/13(43.33%)

Interdepartmental comparison:

Availability of medicine- 90 to 96% of patients were satisfied with availability of medicines. This was more compared to study done by Singh S et al (18) which observed that 56% of the patients were unsatisfied with the availability of medicines. In another study done by Sivalenka (22), the supply of medicines was identified as an area of concern.

Medical information received – average percentage of patients satisfied was around 87%. The Medicine and Surgery department patient satisfaction score was higher compared to that of OBGY department. It was very statistically significant (P value =0.0067).

Doctor behavior- average percentage of patients satisfied was around 64%. Other studies found the satisfaction levels to be higher. Arpita Bhattacharya et al. (19) -98.2%, Kulkarni MV(20) - 87.76%. The higher patient satisfaction score in Surgery department was extremely statistically significant compared to that of Medicine department (P value <0.0001) and of OBGY department (P value <0.0001). The association between Medicine and OBGY departments was not statistically significant (P value=0.0919). In another study the satisfaction score for doctors was highest in Medicine followed by Surgery and Obstetrics. (21)

Staff behavior- average percentage of patients satisfied with staff behavior was around 75%. The patient satisfaction score in Surgery department was extremely statistically significant (P value=0.0003) compared to that of Medicine department. Also the patient satisfaction score in Surgery department was very statistically significant

compared to that of OBGY department (P value= 0.0046). The association between Medicine and OBGY department was not statistically significant (P value=0.5616). In another study the satisfaction score for nurses was highest in Medicine followed by Surgery and Obstetrics. (21)

Hospital facilities- Patient's level of satisfaction was very poor. More than 60% patients found the cleanliness in hospital to be inadequate. More than 85% of patients found the condition of toilets to be unsatisfactory. Around 32% felt that drinking water was easily available. Only around 27% (average) were satisfied with hospital facilities. Similar findings have been observed in some other studies. (19, 20, 22) This is matter of concern to hospitals, where sick people are admitted, whose immunity is already compromised due to their sickness making them more prone to infections. (23) The higher patient satisfaction score in Surgery department was statistically significant compared to that of Medicine department (P value=0.0359) and OBGY department (P value=0.0049). The association between Medicine and OBGY department was not statistically significant (P value=0.5841). In another study score for hospital environment was highest for Medicine followed by Obstetrics and Surgery. (21)

Overall satisfaction-the average overall level of satisfaction was 70%. A study conducted in Srinagar (24) reported only 6.7% patients were poorly satisfied with hospital services. In the present study the higher patient satisfaction scores of Surgery department was extremely statistically significant compared to scores of Medicine department (P value<0.0001) and OBGY department (P value<0.0001). The higher patient satisfaction scores of Medicine department was statistically

significant compared to that of OBGY department (P value=0.0340). In other interdepartmental comparative studies the patient satisfaction was highest for Obstetrics service followed by Medicine. The lowest satisfaction was for Surgery. (17,14) A study conducted in Sweden showed higher patient satisfaction with Gynecology compared with Surgery, Orthopedics, Internal Medicine, and Psychiatry. (25) Other study found highest satisfaction in Orthopaedic patients than any other department. (26)

Socio-demographic and clinical factors;
Gender-

Table-3 comparison of male and female patient satisfaction levels

Components of patient satisfaction	Females N=52		Males N=38		Statistical significance
	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	
Availability of medicines	90.38%	9.61%	97.36%	2.63%	No, P=0.3949
Medical information received	79.48%	20.51%	97.36%	2.63%	Yes, P<0.0001
Staff behavior	70.19%	29.80%	81.57%	18.42%	No, P=0.1162
Doctor behavior	57.69%	42.30%	69.73%	30.26%	Yes, P=0.0208
Hospital facilities	22.43%	77.56%	33.33%	66.66%	No, P=0.0527
Overall level of satisfaction	62.82%	37.17%	79.82%	20.17%	Yes, P=0.0030

Studies of the impact of gender on patient satisfaction are contradictory. In some studies male patients have higher satisfaction scores than female patients, (11, 12) while others show female patients have higher satisfaction scores. (13, 14) In some studies there was no difference in satisfaction levels between male patients and female patients. (15) In the present study, the aggregate average percentage (combining all the six components of patient satisfaction assessed), was more for male patients compared to female patients (73.19% vs 59.74%) and the findings were statistically significant with regard to medical information received, doctor behavior, and overall satisfaction levels. (Table-3) It was observed in the interdepartmental comparison that patient satisfaction score was least in OBGY department compared to other departments. All the patients in OBGY department were females. To clarify whether the patient satisfaction score was least in OBGY department because of lower satisfaction score of female patients or whether because the female patients satisfaction score was low, the OBGY department showed least patient satisfaction score, analysis of gender satisfaction levels in other departments were also done. It was found that in the surgery department, the aggregate average satisfaction score was more in male patients compared to the female patients (83.75% vs 74.37%). It was statistically significant for medical information received (P=0.0050). In medicine department, too, the aggregate average satisfaction score was more in male patients compared to female patients (61.11% vs 51.85%) and none of the findings were statistically significant. Thus it follows that female patient satisfaction score was less compared to the male patient satisfaction score across the studied departments.

Age-

Table-4, comparison of satisfaction levels of patients in different age groups

Components of patient satisfaction	20-40 years age group, N=52		Other age group, N=38		Statistical significance
	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	
Availability of medicines	94.23%	5.76%	92.10%	7.89%	No, P=0.6943
Medical information received	83.97%	16.02%	91.22%	8.77%	No, P=0.0988
Staff behavior	79.80%	20.19%	68.42%	31.57%	No, P=0.0853
Doctor behavior	65.38%	34.61%	59.21%	40.78%	No, P=0.2697

Hospital facilities	25%	75%	29.82%	70.17%	No, P=0.4069
Overall level of satisfaction	71.15 %	28.84%	68.42%	31.57%	No, P=0.6872,

Comparison was made between a. Patients from 20-40 age group and b. Patients of other age groups. The aggregate average satisfaction score was marginally more in 20-40 age group patients compared to other age group patients (65.99% vs 64.64%) and none of the findings were statistically significant. (Table-4) Literature shows older patients report a higher level of satisfaction than younger patients. (13) It is suggested that the older respondents give more scores to the service providers since they have been going through the social services all their lives. They are more understanding and accepting than younger respondents who usually have less social and commercial experiences of the real world and judge things very quickly. (16)

Socioeconomic status-

Table-5 comparison of satisfaction levels in patients of different socio economic status

Component s of patient satisfaction	Upper lower socio economic status, N=69		Other socioeconomic status, N=21		Statistical significance
	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	
Availability of medicines	91.30%	8.69%	100%	0%	No, P=0.3294
Medical information received	85.54%	15.45%	95.23%	4.76%	Yes, P=0.0308
Staff behavior	72.46%	27.53%	83.33%	16.66%	Yes, P=0.0247
Doctor behavior	57.97%	42.02%	78.57%	21.42%	Yes, P=0.0007
Hospital facilities	24.63%	75.36%	34.92%	65.07%	No, P=0.1441
Overall level of satisfaction	63.28%	36.71%	92.06%	7.93%	Yes, P<0.0001

Comparison was made between a. Patients from upper lower socio economic status group and b. Patients from other socio economic status group. . The aggregate average satisfaction score was more in other socio economic status group patients compared to upper lower socio economic group patients (77.98% vs 61.59%). This satisfaction was statistically significant for medical information received, staff behavior, doctor behavior and overall satisfaction level. (Table-5)

Duration of hospital stay-

Table-6, comparison of satisfaction levels in patients with regards to duration of admission

Components of patient satisfaction	Duration of admission <10 days, N=67		Duration of admission >10 days, N=23		Statistical significance
	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	
Availability of medicines	95.52%	4.47%	86.95 %	13.04 %	No, P=0.1715
Medical information received	86.06%	13.93%	89.85 %	10.14 %	No, P=0.5347
Staff behavior	73.13%	26.86%	80.43 %	19.56 %	No, P=0.4302
Doctor behavior	61.94%	38.05%	65.21 %	34.78 %	No, P=0.6183
Hospital facilities	25.37%	74.62%	31.88 %	68.11 %	No, P=0.3460
Overall level of satisfaction	67.16%	32.83%	78.26 %	21.73 %	No, P=0.0948

Studies have reported that patient satisfaction is more when hospital

stay is less. (17) However, in the present study the patients with hospital stay of more than 10 days were more satisfied than the shorter stay patients across all components of satisfaction scale except availability of medicines. However, none of the findings were statistically significant. (Table-6)

CONCLUSION; Patient satisfaction is a very complicated principle, which is usually affected by some significant factors such as socio-demographic factors, personal characters, physical and mental aspects, cause and effect of the services, and patients' expectations. (27) In the present study, higher satisfaction levels were found in male patients, those from 20-40 age group, those from socioeconomic status other than upper lower group and those with longer duration of hospital stay. In interdepartmental comparison the highest satisfaction levels were found patients in Surgery department followed by Medicine department. The OBGY department had lowest satisfaction scores. Satisfaction scores of female patients were less compared to male patients in all the studied specialties. Small sample size and evaluation of limited components for patient satisfaction are the drawbacks of the study. Future studies measuring patient perceptions of health services with larger sample size is recommended.

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