



# IJEAST

INTERNATIONAL JOURNAL  
OF ENGINEERING APPLIED SCIENCE  
AND TECHNOLOGY



**VOLUME : 6    ISSUE : 6    Print / Issue Publication Date: 10-Jan-2022**



**ISSN : 2455-2143**



**DOI : 10.33564/IJEAST.2021.v06i06.020**

Indexed In



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[editor@ijeast.com](mailto:editor@ijeast.com)



# A STUDY ON PATIENT SATISFACTION WITH SERVICES IN OUT-PATIENT DEPARTMENT AT A GOVERNMENT TEACHING HOSPITAL, NEW DELHI, INDIA

Dr. Neha Taneja  
Assistant Professor  
Amity Institute of Public Health  
Noida, UP

Dr. Sujata Gupta  
Senior Resident  
North DMC Medical College  
& Hindu Rao Hospital New Delhi

Dr. Karuna Nidhi Kaur  
MPH Student  
Amity Institute of Public Health  
Amity University, Noida

**Abstract— Introduction:** Patient satisfaction is one of the meaningful indicators of patient experience of health care services. It is an important step towards improving the quality of health care and ensuring that local health services are meeting patient's needs. Patient satisfaction is deemed to be one of the important factors which determine the success of the health care facility. Satisfied patients are more likely to utilize health services and comply with medical treatment but it is difficult to measure the satisfaction. Thus, there is a need to assess the health care systems regarding patient satisfaction as often as possible. **Aims & Objectives:** To evaluate the level of patient satisfaction with outpatient department (OPD) services and the factors associated with patient satisfaction. **Materials & Methods:** A cross-sectional study was conducted at the outpatient departments of a government hospital over a period of 2 months. An anonymous, pre-designed, tested, semi structured questionnaire was administered after taking consent for assessing patient satisfaction as often as possible. **Results:** Overall level of satisfaction of patients with OPD services was 86.3%. 93.2% patients were satisfied with the examination and 90.1% satisfied with the communication by the doctor. 73.3% of patients were unsatisfied with the toilet facility and 73.3% of patients were unsatisfied with availability with the toilet facility and 65.5% of patients were unsatisfied with availability of drugs. 89.2% of patients said they would recommend the hospital to others.

**Keywords—** Patient satisfaction, OPD services, Health care

## I. INTRODUCTION

Patient satisfaction has been defined as an evaluation that reflects the perceived differences between expectations of the patient to what is actually received during the process of care.<sup>(1)</sup> It is a measure of health care quality and requires to be frequently assessed and depends upon many factors such as

quality of clinical services provided, availability of medicine, behavior of doctors and other health staff, cost of services, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences.<sup>(2)</sup> It is a complicated phenomenon that is linked to patient expectations, health status, personal characteristics as well as health system characteristics.<sup>(3)</sup> However it is a great challenge for health care managers to effectively evaluate the quality of health care services hence at times it ends up being neglected.

The Patient is the ultimate consumer of the hospital services and Outpatient department (OPD) is the first point of contact of the hospital with the patients. The care in the OPD is believed to indicate the quality of services of a hospital and is reflected by patients' satisfaction with the services being provided.<sup>(3)</sup> Being an important outcome measure of the effectiveness of health care delivery system functional at hospitals the present study was conducted to evaluate the level of patient satisfaction with OPD services and the factors associated with patient satisfaction.

## II. METHODOLOGY

A cross-sectional study was conducted at a government hospital for a period of two months. The hospital caters to a daily OPD of 200-300 patients. Ethical approval for the study was taken. The sample size was estimated as 184 based on previously reported level of 86.3% satisfaction among OPD patients.<sup>(2)</sup> However, we were able to mobilize more than the 184 patients and cover 547 study subjects.

An anonymous, pre-designed, pre-tested semi-structured questionnaire was administered after obtaining an informed written consent from each patient. The questionnaire covered the information related to the patient's socio-demographic profile, pattern of visit, perception of OPD services, perception of pharmacy and lab-related services, behavior of doctors and



other staff, and attitude of patients towards doctors. The data were analyzed with SPSS v20.0 software.

**III. RESULT**

Among 547 patients interviewed, the mean (SD) age was 35.34 ± 12.81 and 236(43.1%) of patients were between the age category of 30-50 years and 58.9% of them were males. (Table1).

Age	N (%)
18-30	241(44.1)
31-50	236(43.1)
51-70	70(12.8)
Gender	
Male	322(58.9)
Female	225(41.1)
Religion	
Hindu	466(85.2)
Muslim	71(13)
Others	10(1.9)
Education	
Illiterate	58(10.6)
1-9th	127(23.2)
10-12th	214(39.1)
Graduate & above	148(27.1)
Occupation	
Unemployed/housewife	133(24.3)
Service	132(24.1)
Business/shopkeeper	49(9.0)
Labour	161(29.4)
Student	72(13.2)

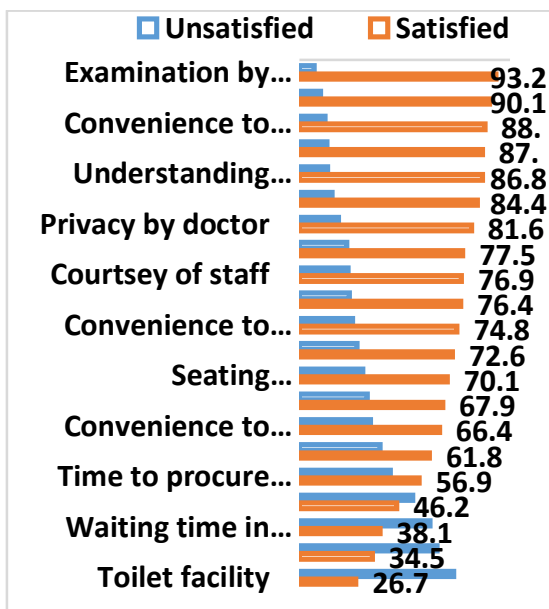
**TABLE 1- Socio-demographic characteristics of patients (N = 547)**

Among the patients 29.4% were visiting the Medicine OPD and 26.7% were visiting Surgery OPD. 19.2% patients were new visitor and 22.3% patients were accompanied with more than 1 attendant.

OPD Visit	N (%)
1.Surgery	146(26.7)
2.Medicine	161(29.4)
3.Dermatology	62(11.3)
4.Paediatrics	21(3.8)
5.Orthopedics	83(15.2)
6.OBG/GYNAE	35(6.4)
7. Ophthalmology & ENT	39(7.1)
No of visits	
First	105(19.2)
Second	202(36.9)
>2	240(43.9)
No of attendees	
None	123(22.5)
1 attendant	302(55.2)
> 1 attendant	122((22.3)

**Table 2. Pattern of visit of patients at outpatient department clinics (N=547)**

Patients were most satisfied with examination by doctor (93.2%), communication with doctor (90.1%), convenience to reach hospital (88%), OPD area accessibility (87%) and being able to understand the illness (86.8%). However patients were unsatisfied with toilet facility (26.7%), availability of drugs (34.5%), waiting time in registration process (38.1%), drinking water facility (46.2%) and time to procure medicines(56.9%) as shown in fig 1.



**Figure 1. Level of satisfaction (%) with various OPD services.**

Overall level of satisfaction with OPD services was 86.3% and 89.2% patients said that they would recommend the hospital to others. (Fig 2)

**Figure 2: Overall level of satisfaction with services**



On applying bivariate analysis, those variables that were found statistically significant were included in multivariate logistic regressions.

In multivariate analysis, factors that remained statistically significant with patient satisfaction were appropriate signage (AOR=.39, 95% CI:.19-.80), cleanliness in OPD(AOR= .44, 95% CI:.20 - .97), courtesy of staff(AOR= .30, 95% CI:.15-.61), quality of care(AOR=.23, 95%CI:.09-.55), time to get investigations done(AOR=.03, 95% CI:.24 -.95), ease in getting follow up(AOR= .46, 95% CI: .22 -.92) and ease in getting admission (AOR=.402, 95%CI:.19-.83) of the respondents (Table 3).

**Table 3: Multivariate logistic regression analysis of patient satisfaction with associated factors.**

VARIABLE	AOR	SIGNIFICANCE	95% CI (LL-UL)
1. Appropriate signages	0.392	0.010	.192-.800
2. Cleanliness in OPD	0.443	0.043	.201-.973
3. Courtesy of staff	0.307	0.001	.154-.612
4. Quality of care	0.234	0.001	.098-.558
5. Time to get investigations done	0.037	0.037	.241-.958
6. Ease in getting follow up	0.461	0.029	.229-.926
7. Ease in getting admission	0.402	0.015	.193-.836

**IV. DISCUSSION:**

The present study was conducted to evaluate the level of satisfaction of the patients with the various aspects of the health care delivery system in a government teaching hospital of New Delhi. It is relatively a multidimensional concept taking into



consideration the patients perceived need, his expectations from the health system, and experience of health care. <sup>(4)</sup>

In this study overall level of satisfaction with OPD services was high (86.3%). A similar finding was noted by Sodani et al where overall satisfaction with OPD services was 86.67% and Kumari R et al in their study noted a total satisfaction of 73%. <sup>(2,5)</sup> In another study by Qureshi et al at Srinagar 72% patients considered the OPD services as good while 8.3% as average and 19.7% were poorly satisfied or not satisfied with the hospital services. <sup>(6)</sup> Umar I et al showed that, only 45% of the patients were actually satisfied with the services in the OPDs. <sup>(7)</sup>

Contrary findings were seen in the study by Nandkeshav AR et al where total satisfaction of patients with OPD services was 65.3%. <sup>(8)</sup> Similarly, the study conducted by Chetwynd SJ reported total satisfaction of only 49%. <sup>(9)</sup> Patavegar et al showed that 50.89% are satisfied. <sup>(10)</sup> Ibrahim A et al showed 10% overall satisfaction in their study which was low in comparison to other studies. <sup>(11)</sup> The difference could be explained by hospital and socio- cultural settings and also the availability of medical resources.

In our study, the mean age of patients attending the OPD was  $35.34 \pm 12.81$  and 58.9% of them were males. A similar finding was noted by a Kolade J Obamiro in his study at Nigeria where majority of patients were female (65%) dominated with patients of 18 to 24 ages (45%). <sup>(12)</sup> Sharma A et al in their study showed that 52% were male patients, 48% were females with a mean age of  $42.9 \pm 19.53$  years. <sup>(13)</sup> This was contrary to the findings by Nandkeshav A et al who in their study found that out of 320 respondents, 40.3% were males and 59.7% were females. <sup>(8)</sup> Level of education may affect the expectations of the patients with the health care delivery system and also facilitate searching of various departments of the hospitals. In our study 39.1% patients had higher secondary level of education followed by 27.1% who were graduate and above with only 10.6% patients being illiterate. Similar finding was reported by Sharma A et al who noted that 22% of patients were graduate and above followed by primary education (26%), higher secondary education (20%), middle school (18%) and illiterate (14%). <sup>(13)</sup>

According to the departmental wise distribution of patients of the 547 patients interviewed, 29.4% attended the medicine OPD, followed by surgery OPD (26.7%), orthopedics OPD (15.2%), derma OPD (11.3%) and Obstetrics & Gynecology OPD (6.1%). Pediatrics, Ophthalmology, and ENT had an attendance of 10.1%. A similar finding was reported by Mankar et al where out of 508 patients interviewed, majority 108 (21.3%) had attended the medicine OPD, followed by orthopedics 80 (15.8%), Obstetrics and Gynecology (OBGY) and ENT 11.8 respectively. The Pediatrics and Ophthalmology OPD had an attendance of 10.2% each. <sup>(14)</sup>

Patients perception on various OPD services was ascertained. The majority of patients were satisfied with convenience to reach hospital (88%), OPD area accessibility (87%), appropriate signages (72.6%), seating arrangements (70.1%) and cleanliness in the OPD (67.9%). Similarly in a study by Sodani et al 58% respondents said that the time taken to reach the hospital was less than 15 minutes and almost all the respondents did not find any problem in locating the hospital (93%) or locating different departments within the hospital (87%). More than half of the respondents (54%) found sitting arrangements adequate and 71% respondents found hospitals adequately cleaned. <sup>(2)</sup> Similar findings were observed in the study conducted by Galhotra in which the respondents were satisfied with the basic amenities. <sup>(15)</sup>

The study observed that 53.8% patients were unsatisfied with drinking water facility and 73.3% with toilet facility. Similarly, Joshi et al noted that 68% of patients agreed that there was enough drinking water in waiting area of Medicine OPD and 70% of patients said that there were clean toilets in waiting area. <sup>(16)</sup>

However 65.5% patients were unsatisfied with availability of drugs in the pharmacy and 43.1% were unsatisfied with procurement of medicines. In a study by Mankar et al from Mumbai 19.7% complained that medicines were not available at a subsidized rate. <sup>(14)</sup>

Patients' views on various aspects of doctor-patient interaction were ascertained. 76.9% of patients were satisfied with the behavior of the staff and 91.7% patients were satisfied with the time taken to find the doctor. Similarly, Patel et al noted that 98.52% patients were satisfied with the behavior of hospital staff. <sup>(17)</sup> Sharma A et al found that 78% of patients were satisfied with doctor's behavior, 64% were satisfied with behavior of nurses and paramedical staff. <sup>(13)</sup>

The quality of doctors communication during history taking and discussion with the patient has an impact on the health outcome of the patient <sup>(17)</sup>. In the present study majority of the patients were satisfied with the amount of time spent with the doctor (84.4%), examination by the doctor (93.2%), were able to communicate with the doctor (90.1%), were able to understand the illness (86.8%), and privacy maintained by the doctor (81.6%). While in a study conducted by Jadhav SB et al time taken for consultation & examination by doctor was found to be satisfactory in case of 68.82% participants. <sup>(18)</sup> In a study from Lahore it was seen that 94% of the patients who visited the OPD were satisfied with their doctor. <sup>(4)</sup>

89.2% patients said they would recommend the hospital to others. Similar findings were seen by Sharma A et al where 94% patients told that they preferred to recommend the same hospital to their relatives and friend also. <sup>(13)</sup>



## V. CONCLUSION:

OPD services are an essential part of health care services in a hospital that need to be improved by developing patient feedback system. Patients are the bread runner of health care system so they must be given highest priority for making the health care system more efficient and effective

## VI. REFERENCE

1. Al-Abri R, Al-Balushi A. Patient satisfaction survey as a tool towards quality improvement. *Oman Med J.* 2014 Jan;29(1):3-7.
2. Sodani PR, Kumar RK, Srivastava J, Sharma L. Measuring patient satisfaction: a case study to improve quality of care at public health facilities. *Indian J Community Med.* 2010 Jan;35(1):52-6.
3. Mohd A, Chakravarty A. Patient satisfaction with services of the outpatient department. *Med J Armed Forces India.* 2014 Jul;70(3):237-42.
4. Mukhtar F, Anjum A, Bajwa MA, Shahzad S, Hamid S, Masood Z, Mustafa R. Patient satisfaction; OPD services in a Tertiary Care Hospital of Lahore. *Professional Med J* 2013;20(6): 973-980.
5. Kumari R, Idris M Z, Bhushan V, Khanna A, Agarwal M, Singh S K. Study on patient satisfaction in the government allopathic health facilities of Lucknow district, India. *Indian J Community Med* 2009;34:35-42.
6. Waseem Qureshi, Nazir A. Khan, Ajaz A. Naik, Shabnam Khan, Arshid Bhat, G.Q. Khan, Gh. Hassan, Shahid Tak. A case study on patient satisfaction in SMHS HOSPITAL, SRINAGAR. *Hospital's Today* 2015;12(3):154-155.
7. Oche UIMO, Umar AS. Patient waiting time in a tertiary health institution in Northern Nigeria. *J Public Health Epidemiology.* 2011;3(2):78-82.
8. Nandkeshav AR, Kalpana KM, Mangesh RP, Akanksha J, Balaji BS. Patients waiting time and their satisfaction of health care services provided at outpatient department of Government Medical College, Nanded, Maharashtra, India. *International J Health Sciences & Research.* 2014;4(4):21-7
9. Chetwynd SJ. Satisfaction and dissatisfaction with the public and private hospitals. *Newzealand Medical J.* 1988;101(853):563-9.
10. Bilkish NP, Sangita SC, Prakash A, Manjunath KS. A cross sectional study of patient's satisfaction towards services received at tertiary care hospital on OPD basis. *National J Community Medicine.* 2012;3:232-7.
11. Ibrahim A, Chompikul J, Isaranurug S. Patient satisfaction with health services at the outpatient department of Indira Gandhi memorial Hospital, Male, Maldives. *J public health and development.* 2008;6(1):144-52.
12. Obamiro JK. Effects of waiting time on patient satisfaction: Nigerian hospitals experience, Lagos State University, Nigeria. *International J Economic Behaviour.* 2013;3:117-26.
13. Sharma A, Kasar PK, Sharma R. Patient satisfaction about hospital services: A study from the outpatient department of Tertiary care hospital, Jabalpur, Madhya Pradesh, India. *National J Community Medicine.* 2014;5(2):199-203.
14. Madhavi Mankar, Deepa Velankar, Sumedha Joshi, Aasawari Nalgundwar. A study of Patient Satisfaction towards out patient department services (OPD) of a hospital and research centre. *Indian J. Prev. Soc. Med.* 2013; 44(2):37-41.
15. Galhotra A, Sarpal SS, Gupta S, Goel NK. A cross-sectional study on patient satisfaction toward services received at rural health center, Chandigarh, North India. *Ann Trop Med Public Health.* 2013;6:240-4.
16. Joshi KJ, Sochaliya K, Purani S, Kartha G. Patient satisfaction about health care services: A cross sectional study of patients who visit the outpatient department of a civil hospital at Surendranagar, Gujarat. *Int J Med Sci Public Health* 2013; 2:659-663.
17. Patel R, Patel HR. A study on waiting time and out-patient satisfaction at Gujarat medical education research society hospital, Valsad, Gujarat, India. *Int J Community Med Public Health* 2017;4:857-63.
18. Jadhav SB, Lokhande GS, Naik JD, Rajderkar SS, Suryavanshi SP, K.R Bhoje KR. Measuring patient satisfaction towards quality of outpatient care: a part of health systems research. *International J Recent Trends in Science and Technology.* 2011;1(3):96-103.

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