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Original Research Article

Patient satisfaction with quality of care across different health facilities in Manipur, North-East India

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ABSTRACT

Background: The study of patient satisfaction with care received is of paramount importance in the context of providing quality of care services, be it a public or private sector institution. This study planned to assess the satisfaction and associated factors among patients attending government and private health facilities in Manipur, North East India.
Methods: A cross-sectional study among eligible OPD attendees of both government and private healthcare facilities was conducted between October 2023 and January 2024 using a semi-structured questionnaire on eight patient care domains. Descriptive statistics, t tests, chi-square tests, and logistic regression analyses were employed to examine satisfaction levels and associated variables. Ethical approval was secured from institutional ethics committee.
Results: A total of 521 patients were interviewed with more than half of the participants (55.1%) being females. Majority of the participants (88.7%) were satisfied with the overall care provided in the health facilities. Participants who attended OPD in private hospitals had significantly higher satisfaction level ($p<0.001$) as compared to those who visited government hospital.
Conclusions: Improving patient satisfaction relies on essential amenities, wait times, quality of care from physicians and nurses, staff attitude, cleanliness, and affordability. Regular supervision and assessment are crucial for enhancing overall care quality.

Keywords: Patient satisfaction, Public sector, Private sector, Quality of care

INTRODUCTION

Clients' satisfaction is an indispensable measurable aspect for assessing the quality of services provided by any service provider, be it a public or private sector institution. It becomes more relevant in hospitals where the experiences of patients regarding the quality of care will leave a profound impact on their revisit and recommendation to other potential clients. Though the concept of patient satisfaction is strongly psychological, it depends on various other factors such as: Quality of clinical services provided, availability of medicine, cleanliness, behaviour of doctors and other health staff, cost of the services, hospital infrastructure, physical comfort, emotional support, and respect for patient preferences.[1] These encompass both clinical and non-clinical outcome which have made measuring patients' satisfaction difficult.[2]

In general, 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.[3] Patients' dissatisfaction creeps up whenever there is disparities between their expectations and the actual services received. For any healthcare organisation to be successfully thriving by yielding better patient outcomes, evaluating patients' satisfaction is a simple but very effective strategy to monitor and improve their performance.[4-7] Though patients consider the prices of the hospital to be high, they are more concerned about good treatment and quality

services. And they are inclined to recommend the hospital to their friends and relatives.[8]

In the context of Manipur, India there are very few studies conducted to assess clients' satisfaction in terms of quality care provision in health facilities and there is no prior study conducted in both public and private hospitals.

Therefore, the present study will be conducted on clients' satisfaction in the out patient's department (OPDs) of tertiary government hospital and corporate hospitals in Manipur with the objectives to assess the level of satisfaction among the OPD attendees of the hospitals and also to determine the association between levels of satisfaction with variables of interest.

METHODS

Study design and setting

This was a facility-based cross-sectional study conducted among OPD attendees across different health facilities in Imphal East and Imphal West districts of Manipur. The study participants consist of patients and patient party attending OPD of Jawaharlal Nehru institute of medical sciences (JNIMS) a tertiary care hospital, Shija hospital and research institute (SHRI) and Trevi hospital (a multi-specialty hospital) during October 2023 to January 2024. Those patients who refused to participate were excluded from the study.

Sample size and sampling method

By using the formula for single proportion (Z^2PQ/e^2) a sample size of 500 was calculated by taking prevalence of 53% satisfaction level of overall OPD care,[19] adding 20% for non-responders and at 5% level of significance. The three tertiary care hospital were selected using purposive sampling method. Depending upon the respective average case load of the three hospitals, the calculated sample size was distributed in the proportion of 1:3:6 (50, 150 and 300 cases each) to Trevi hospital, SHRI and JNIMS respectively. The eligible study population were consecutively sampled until the required sample size was met.

Study tool and technique

A pre-tested, semi-structured questionnaires consisting of the following domains: Socio-demographic variables,, reason for choosing this health facility, availability of basic amenities, waiting time, physician care or nursing care, attitudes of other staffs, cleanliness and sanitation, cost factor of the health facility, revisit to the health facility, willingness to recommend, awareness of health schemes and overall satisfaction was used for collecting data. The study tool consisted of 28 questions across the different domains measuring satisfaction level using a 3-point Likert scale (0=unsatisfied, 1=okay, 2=satisfied) with a total score ranging from 0 to 56. Those who score above 65th percentile was considered as satisfied and below as Unsatisfied. The data were collected using interview method.

Data analysis

Data were entered in MS Excel and analyzed using IBM SPSS version 20. Descriptive statistics like mean, median, proportion, standard deviation was used to summarize the findings. Independent sample t test, Chi-square test was performed taking a $p<0.05$ as the level significance. Univariate logistic regression analysis was performed to test for association between satisfaction level and selected variables. A multivariate logistic regression model was developed after including variables with $p<0.20$ for the adjusted analysis.

Ethical considerations

Ethical approval was obtained from the institutional ethics committee. Verbal informed consent was taken from the study participants and purpose of the study was clearly explained prior to data collection. Strict confidentiality of the information was maintained.

RESULTS

Out of the 521 participants, there was no refusal with a 100% response rate. The age of the participants ranged from 18 to 83 years with a mean age 37.89 (±14.71) years and a median age of 35 years. More than half of the participants (55.1%) were females and most of participants belonged to Hindu religion (52.5%). More than half of the respondents (57.8%) were attending medicine and allied departments (Table 1).

Most of the respondents were satisfied with pharmacy services (70.4%), toilet and handwashing facilities (73.5%), parking space (82.9%) and comfort of examination room (76.2%). However, majority of the participants (56.2%) were unsatisfied with availability of drinking water facility. While half of the participants (50.9%) were found to be satisfied with the overall cleanliness of the hospital. Around four-fifth of the participants (87.1%) and three-fourth of the participants (75.7%) were satisfied with the care received from doctor and nurses respectively. Three-fourth of the participants (74.4%) were satisfied with the care received from general staff. However, more than half of the participants (53.6%) were unsatisfied with the overall waiting time. Nearly 72% of the participants were aware of the government health schemes. Majority of the participants (88.7%) were satisfied with the overall care provided in the health facilities.

Majority of the patients who had attended OPD in the private hospitals had significantly higher level of satisfaction in terms of various domains such as availability of basic amenities, overall waiting time,

physician and nursing care, attitude of general staff, cleanliness and sanitation. However, regarding the cost factor, patients who attended OPD in the government hospital had a higher level of satisfaction and it was statistically significant (Table 2).

Regarding mean waiting time of obtaining OPD tickets, the government hospital had a significantly longer time as compared to that of the private health facilities (p<0.001). However, private hospital had significantly longer waiting-time for physician consultation as compared to that of government hospital (p<0.001) (Table 3).

Certain independent variable such as age, gender, address, educational level, occupation, marital status, socio-economic level, various departments in the hospitals as well as the different types of health facilities have an impact on the level of satisfaction of the clients (Table 4). The univariate and multivariate analysis have found that participants who attended OPD in Private hospitals had significantly higher satisfaction level (p<0.001) as compared to those who visited government hospital. Multivariate logistic regression revealed that the participants belonging to middle class (AOR 0.253, 95% CI 0.081-0.087) and lower class (AOR 0.384, 95% CI 0.160-0.920), participants from surgery and allied (AOR 0.524, 95% CI 0.288-0.954), participants attending private hospital (AOR 7.109, 95% CI 2.383-21.205), and waiting time for OPD consultation of >25 minutes (AOR 0.360, 95% CI 0.172-0.754) have significantly higher level of satisfaction as compared to others. Those variables which were found to be significant in the univariate analysis, such as participants who are illiterate and participants who are self-employed were found to be statistically non-significant when adjusted for confounders.

Table 1: Distribution of participants based on sociodemographic profile (n=521).

Variables	N	Percentage (%)
Age group (in years)		
18-35	269	51.6
>35	252	48.4
Address (District)		
Valley	488	93.7
Hill	33	6.3
Education level		
Illiterate	14	2.7
Primary school	37	7.1
High school	112	21.5
Higher secondary	130	25.0
Graduate and above	228	43.8
Occupation		
Service	134	25.7
Self-employed	176	33.8
Daily wage worker	28	5.4
Unemployed	183	35.1
Social class per capita income per month as per (INR) modified B. G. Prasad classification May 2022		
I (upper class) ≥8397	157	30.1
II (Upper middle class) 4156-8396	192	36.9
III (Middle class) 2460-4155	119	22.8
IV (Lower middle class) 1272-2456	43	8.3
V (Lower class) <1272	10	1.9
Type of health facility attended		
Government-JNIMS	319	61.2
Private-SHRI	139	26.7
Trevi hospital	63	12.1
OPD attended		
Medicine and allied	301	57.8
Surgery and allied	220	42.2

Table 2: Comparison of patient's satisfaction level according to various domains across government and private health facilities, (n=521).

Domains	Category	Satisfied, n (%)	Unsatisfied, n (%)	P value
Availability of basic amenities	Govt. hospital	225 (70.3)	95 (29.7)	<0.001
	Pvt. hospital	186 (92.5)	15 (7.5)	

Continued.

Domains	Category	Satisfied, n (%)	Unsatisfied, n (%)	P value
Overall waiting time	Govt. hospital	258 (80.6)	62 (19.4)	0.079
	Pvt. hospital	174 (86.6)	27 (13.4)	
Physician and nursing care	Govt. hospital	258 (80.6)	62 (19.4)	<0.00
	Pvt. hospital	186 (92.5)	15 (7.5)	
Attitude of general staff	Govt. hospital	302 (94.4)	18 (5.6)	0.007
	Pvt. hospital	199 (99.0)	2 (1.0)	
Cleanliness and sanitation	Govt. hospital	194 (60.6)	126 (39.4)	<0.001
	Pvt. hospital	185 (92.0)	16 (8.0)	
Cost factor	Govt. hospital	318 (99.4)	2 (0.6)	<0.001
	Pvt. hospital	174 (86.6)	27 (13.4)	

Table 3: Independent t-test comparing waiting time in government and private health facilities.

Variables	Govt. Mean±SD	Pvt. Mean±SD	Mean difference with 95% CI	T	P value
OPD waiting time	54.84±38.20	8.30±7.57	46.53 (41.17 to 51.89)	17.05	<0.001
Waiting time for physician consultation	36.28±30.23	49.78±38.54	-13.49 (-19.45 to-7.53)	-4.45	<0.001
Physician consultation time	12.02±0.60	12.56±6.33	-0.53 (-1.68 to -0.61)	-0.91	0.361

Table 4: Univariate and multivariate analysis of associated factors determining the level of satisfaction of clients.

Characteristics	Categories	COR	95% CI	P value	AOR	95% CI	P value
Age (in years)	18-35	1.421	0.819-2.464	0.209			
	>35						
Gender	Male	0.701	0.401-1.226	0.211			
	Female						
Address	Valley	1.296	0.383-4.387	1.000			
	Hill						
Education level	Graduation and above	Ref					
	Higher sec	1.388	0.173-11.123	0.757	1.239	0.356-1.479	0.851
	High school	0.881	0.285-2.719	0.826	1.194	0.341-4.178	0.781
	Primary	1.222	0.543-2.750	0.628	1.946	0.742-5.101	0.176
	Illiterate	0.497	0.497-0.265	0.029	0.726	0.356-1.479	0.377
Occupation	Govt. employee	Ref					
	Self-employed	0.407	0.197-0.837	0.015	0.608	0.268-1.377	0.233
	Daily wage worker	0.537	0.158-1.827	0.319	0.551	0.137-2.205	0.399
	Unemployed	1.341	0.563-3.195	0.507	1.488	0.567-3.907	0.420
Marital status	Married	0.785	0.447-1.378	0.398			
	Unmarried						
Per-capita income	Upper class	Ref					
	Upper middle	0.483	0.054-4.296	0.514	0.412	0.039-4.388	0.412
	Middle class	0.177	0.065-0.483	0.001	0.253	0.081-0.787	0.018
	Lower middle	0.656	0.245-1.755	0.401	0.905	0.303-2.700	0.858
	Lower class	0.279	0.124-0.626	0.002	0.384	0.160-0.920	0.032
Department	Medicine and allied	0.579	0.336-0.998	0.047	0.524	0.288-0.954	0.034
	Surgery and allied						
Health facility	Govt.	5.377	2.391-12.093	<0.001	7.109	2.383-21.205	<0.001
	Pvt.						
Waiting time for OPD tickets	≤25 minutes	0.355	0.197-0.643	<0.001	1.356	0.591-3.112	0.473
	>25 minutes						
Waiting time for OPD consultation	≤25 minutes	0.464	0.239-0.899	0.020	0.360	0.172-0.754	0.007
	>25 minutes						
Consultation time	>10 minutes	1.093	0.621-1.924	0.757	…	…	…
	≤10 minutes						

*Adjusted for education level, occupation, per capita income, department attended, type of health facility, waiting time for OPD tickets, waiting time for consultation.

DISCUSSION

This study is the first of its kind to evaluate client satisfaction across government and private hospitals in the remote North Eastern region of India. The objective was to discern the levels of satisfaction and dissatisfaction among the diverse patient population served. Notably, the average satisfaction level in both physician care and nursing care domains reached a commendable 97.8%, surpassing benchmarks set by similar studies. The overall satisfaction level within the private hospitals, standing at 97.0%, significantly exceeded that of government hospitals. Gender-based disparities were observed, with male patients exhibiting a higher satisfaction level than their female counterparts which is similar to the finding of a study conducted by Akoijam et al.[9]

A substantial portion of patients, constituting more than two-thirds of participants from government hospitals, expressed dissatisfaction with waiting times, possibly attributable to inadequate time management and service efficiency. This goes against the observation of a study done by Rajkumari et al.[10] Noteworthy infrastructure improvements, including the restructuring of outpatient departments, wards, and new constructions, contributed to a fair satisfaction level of 72.7% regarding the comfort and cleanliness of hospitals. Younger patients demonstrated a notably higher satisfaction level compared to the elderly which is in contrast to the finding of a similar study by Devi et al.[11] Those attending medicine and allied departments reported greater satisfaction, potentially due to increased interaction time with nursing staff and physicians, which often does not involve invasive procedures and lengthy procedures. But some other study showed that patients attending surgery and allied departments were more satisfied.[9]

Moreover, patients with lower educational levels exhibited higher satisfaction, a similar pattern observed in a study elsewhere, likely reflecting economic constraints and affordability factors, given the public health facility's accessibility and the provision of national and state health schemes such as Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) and chief minister-Gi Hakshelgi Tengbang (CMHT), aimed at reducing out-of-pocket expenditure.[12] This suggests that a significant number of patients from lower-income brackets and with limited education access services in both government and private health sectors. Furthermore, most of the respondents were satisfied with the services and facilities available as well as with the behavior of hospital staffs, professional care, behavior of consultants, nurses, paramedical staff and other staff; similar results were shown in studies conducted by various authors.[13-15] Overall impression of hospital services was rated as good by most of participants with similar reporting from Rao et al.[16] Over 90% of the respondents who attended private hospitals were satisfied with the cleanliness and sanitation, showing a similar observation in a study performed by Mukhtar at el.[17] A comprehensive follow-up study evaluating services across various private and public health facilities, encompassing both inpatient and outpatient services, could provide a more nuanced representation of client satisfaction levels.[18-20] The study was conduction in both private sector as well as in public sector for the first time in the North-Eastern region of India and this serves as an important strength of the study. However, certain limitations that can be mentioned of this study include involving only the Out-patient departments and patients who are admitted various wards of different departments, ICU patients and emergency departments were not included.[21-24]

In conclusion, the provision of basic amenities such as clean toilets, safe drinking water, hygienic sheets, and well-maintained wards emerges as a pivotal factor in enhancing overall patient satisfaction. Continuous supervision and evaluation of patient care services should be an ongoing process to drive improvements in the overall quality of care delivered.

CONCLUSION

Majority of participants (88.7%) were satisfied with quality of care received from health facility. Patients attending private hospital have significantly higher level of satisfaction as compared to government hospital. Patients were generally unsatisfied regarding overall waiting time in both the sectors.

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