

Assessment of Satisfaction level of Admitted patients in a Trauma Care Centre of Tripura – A Questionnaire Based Study

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Abstract:

Introduction: Tertiary care hospitals deal with complex medical care and are the face of development of the healthcare delivery system. Towards this advancement, good quality of patient care services adds value. One of the ways to find out about the quality of ongoing services is by carrying out patient satisfaction surveys. In this context, nearly five years after the inauguration of the state's first ever trauma care centre, it was planned to take a feedback on the services provided by the centre. **Objective:** To assess the level of satisfaction of the patients treated in the trauma care center of a tertiary care hospital in the state of Tripura. **Method:** A total of three hundred and sixty five (365) patients admitted in the trauma care centre were interviewed using a validated questionnaire adapted from National Health System survey format. Data was collected over period of six months. For the first three months, interviews were conducted on all odd days of the week and for the next three months the interviews were conducted on even days of the week. **Results:** In the present study, 84% of the responders were male and 16% female. It was observed that 78.08% of the patients had full confidence and trust on the doctors who attended the patients. The overall ranking provided by the patients on the services received in the hospital was satisfactory. In this study, 78.9% and 10.7% of the patients have rated the services to be 'good' and 'excellent', respectively. **Conclusion:** Although most of the patients were satisfied with the services provided in the trauma care centre of the study, 9.6% of them also reported that there is need to improve services. This study will not only help the hospital management to implement new policies but also prepare the hospital well to meet the needs of patients admitted in the trauma care center.

Keywords: Healthcare professionals, National Health System (NHS) survey, Patient satisfaction, Trauma care centre.

Introduction:

Patient satisfaction is defined as sum of all their experiences from time of admission to discharge from hospital.^[1] Doctors, clinical staff and health care management of a hospital would be interested to know patient's view of care because patient satisfaction may be a direct or indirect measure of

treatment outcome. Over the past few years, patient satisfaction surveys have been used as a meaningful and essential tool for identifying gaps and developing effective strategies for quality improvements in health care industry.^[2] It has gained increasing attention as meaningful and essential sources of information for identifying gaps and developing an effective action plan for quality improvement in

Quick Response Code	Access this article online	How to cite this article :
	Website : www.healthlinejournal.org	Dutta S, Goswami B, Bhattacharjee B, Sengupta S. Assessment of Satisfaction level of Admitted patients in a Trauma Care Centre of Tripura – A Questionnaire Based Study. Healthline. 2023; 14 (4): 301-307
	DOI : 10.51957/Healthline_568_2023	

healthcare organizations. Despite of extensive research on client satisfaction in developing countries, there is a lack of data on patient satisfaction in India. Trauma care centres of a State are the first place where most trauma victims are brought in. A well- managed Trauma centre can reduce the burden of mortality caused due to trauma. The first ever trauma care centre in the state of Tripura started functioning at a tertiary care hospital around 5 years back with built in area of approximate 1660.23 sq. mt. with financial assistance from the North-eastern Council and the State Government^[3]

The present study was conducted primarily to determine the level of satisfaction among the patients admitted in the trauma care centre in terms of different infrastructural and quality parameters. To find out gaps in service if any from patient's perspective would also enable the administrators to take wider view on rectification of those gaps.

Method:

This study was conducted at the trauma care centre of the apex tertiary care teaching hospital in Tripura from June,2021 to December,2021 i.e for six months after obtaining the Institutional ethical approval. Only willing patients or their relatives (Age \geq 18 year) who consented to participate in the study were included. Patients reporting to the trauma care centre but not admitted or admitted for less than twenty-four hours were excluded from this study.

A validated questionnaire adapted from National Health System (NHS) survey performance^[4] was used for interviewing the patient admitted in the trauma care centre after the patient attained stability and preferably just a day before their discharge from the hospital. When the condition of the victim would not warrant the interview, the relatives or the attendants were interviewed. A study in Central India reported the overall satisfaction of patients in terms of doctor patient communication to be around 60%.^[5] For present study, sample size was estimated using the Open Epi software taking into account the overall

level of satisfaction to be 60% and population adjusted with the average annual attendance at the trauma care centre which is approximately 3000. Considering an absolute error of 5%, the minimum required sample size estimated to be 334 subjects. Therefore, a total of 365 patients admitted in the trauma care centre were interviewed using the standard questionnaire. Data was collected over a period of six months. Consecutive sampling was followed to meet the required sample size in the given study duration. As the data collection could be done on three days of a week, for the first three months, interviews were conducted on all odd days of the week and for the next three months the interviews were conducted on even days of the week. In order to get the details from patients, interview was done with a standard questionnaire, designed to include questions eliciting knowledge, awareness and perception of patients about the impression on trauma care centre services like, waiting time, cleanliness, maintenance of privacy and problems faced during health check-up.

Statistical analysis:

All statistical analyses were performed using the IBM SPSS Statistics v25 (IBM Corp., Armonk, USA). Descriptive statistics were used to present the findings of the satisfaction survey (frequency and the percentage) and Chi square test was performed to study the categorical variables of the study participants.

Ethical Consideration: This study was approved by the Institutional Ethics Committee at Agartala Governmental Medical College

Results:

In the present study, the responses of 365 patients attending the trauma care centre of Tripura were collected in a structured, predesigned, pre-coded, pretested questionnaire format. Among the responders 84% (306) was male and only 16% (59) was female.

Table 1: Demographic characteristics of study participants (N=365)

Characteristics		n (%)
Sex	Male	306 (84%)
	Female	59 (16%)
District	West	156 (42.7%)
	Khowai	38 (10.4%)
	North Tripura	21 (5.8%)
	South Tripura	62 (17%)
	Dhalai	36 (9.9%)
	Sepahijala	21 (5.8%)
	Unakoti	5 (1.4%)
	Gomati	26 (7.1%)
Community	General	236 (64.15%)
	Scheduled Caste	42 (11.5%)
	Scheduled Tribe	63 (17.3%)
	OBC	24 (6.6%)
Occupation	Farmers	58 (15.9%)
	Daily Workers	17 (4.7%)
	Students	62 (17%)
	Govt. employee	55 (15.1%)
	Private employee	52 (14.2%)
	Others namely drivers, Sweepers, Businessman etc.	56 (15.3%)
	None	65 (17.8%)

In the present study population (n=365), 114 participants (31.2%) were between 15-29 years old followed by 110 participants (30.1%) under 30-44 years age group. Table 1 represents the demographic details like communities, districts, occupation of all the study participants.

In this present study strong association (p=0.039) was found between trauma cause and different age groups. It was also observed in the present study that out of 365 trauma cases, 229 cases (62.7%) are only for Road Traffic accidents followed by fall from height (25.7%) and physical assault (7.94%) respectively. The cleanliness of the hospital rooms, toilets was one of the most important aspects assessed in the present study and 84.9% of the study population was satisfied with the very fine cleanliness of the trauma care centre (Table 2).

Present study also revealed that care provided by the hospital staff, which is another important issue

for the patients while visiting Trauma Care Center, was satisfactory in the hospital. Here in the study, nearly 57.80% of the study participants agreed of getting care from the hospital staff while in need whereas 13.15% declared that they did not get any care from the staff. It was also observed that 78.08% of the patients had full confidence and trust on the doctors who attended them during their hospital stay whereas 25.5% patients didn't have any trust on the Nursing staff of the hospital.(Table 3)

In this study, the overall ranking provided by the patients on the service received in the hospital was very satisfactory, 78.9% patients have given ranking as good for the service received and 10.7% indicated it to be excellent. Responses of study participants regarding trust and confidence on Doctors and Nurses by overall ranking where 78.08% patients have full confidence on doctors which is statistically significant (p = 0.001).

Table 2: Responses regarding different parameters among the study population (N=365)

Variables	(n%)
Cleanliness of the room	
Very Clean	29 (7.9%)
Fairly clean	310 (84.9%)
Not Very Clean	26 (7.12%)
Food Quality	
Very good	71 (19.4%)
Good	55 (15.06%)
Fair	104 (28.5%)
Poor	27 (7.39%)
Not taken	108 (29.58%)
Care provided by the hospital staff	
Yes always	211 (57.80%)
Sometimes	106 (29.04%)
No	48 (13.15%)
Cleanliness of toilet	
Very clean	44 (12.05%)
Fairly clean	259 (70.95%)
Not very clean	50 (13.69%)
Poorly managed	12 (3.28%)
Time to get bed	
Yes, definitely	151 (41.3%)
Yes to some extent	102 (27.9%)
No	112 (30.7%)
Availability of Medicine	
Yes always	77 (21.1%)
Sometimes	165 (45.2%)
No	123 (33.7%)
Privacy during treatment	
Yes Definitely	177 (48.5%)
Yes to some extent	166 (45.5%)
No	22 (6%)
Privacy during Examination	
Yes always	214 (58.6%)
Yes sometimes	149 (40.8%)
No	2 (0.5%)
Total	365

Table 3: Responses regarding Trust and confidence on Doctors and Nurses by overall ranking (N=365)

Factors	Overall Ranking				Total	p-value
	Need to Improve	Poor	Good	Excellent		
Answer from doctor						
Yes, always	1	0	215	89	305 (83.6%)	0.083
Yes, sometimes	17	8	31	4	60 (16.4%)	
No	0	0	0	0	0	
Confidence and trust on doctor						
Yes, always	3	0	256	26	285 (78.08%)	0.001
Yes, sometimes	33	3	39	4	79 (21.6%)	
No	1	0	0	0	1 (0.3%)	
Answers from Nurses						
Yes, always	79	22	170	9	280 (76.7%)	0.000
Yes, sometimes	26	2	13	2	43 (11.8%)	
No	36	4	2	0	42 (11.5%)	
Confidence and trust on Nurses						
Yes, always	106	16	114	6	242 (66.3%)	0.018
Yes, sometimes	12	8	8	2	30 (8.2%)	
No	72	18	3	0	93 (25.5%)	
Availability of enough number of nurses						
Always	34	7	159	7	207 (56.7%)	0.933
Sometimes	86	45	12	3	146 (40%)	
Rarely or Never	7	5	0	0	12 (3.3%)	

Discussion:

Patient satisfaction surveys are useful for an understanding of patients’ needs and their perception of the service received. It is an important indicator in evaluating the quality of patient care. Present study evaluated the satisfaction level among trauma patients attending a trauma care centre of Tripura. Studies have shown that some of the factors associated with patient satisfaction include patient age and gender, care taken by the staff, cleanliness, availability of nurses and patient trust.^[6-12]

In the present study, about 6% of the population expressed their concern on inadequate privacy during treatment. Whereas in a study on client satisfaction by Aldana et al, in rural Bangladesh showed 45.1% of the patients were dissatisfied with

the privacy.^[13] Although in this study percentage is very less but privacy, which is an essential part of healthcare facility, especially for woman, should be ensured in order to improve hospital service. Cleanliness of rooms as well as toilets was reported to be good by more than 80% of the respondents in the present study, which is a satisfier, although there is scope of further improvement. Quality of food as well as availability of medicines was a point of action that requires attention of the administrators in this study setting. Another major point of concern is that nearly 70% of the study participants reported that they took some or more time to be shifted to a designated hospital bed in the colour coded trauma care zone. This may be because of more than 100% bed occupancy and also poor bed management. The usual

guideline is to shift a patient out of the trauma care from the yellow or green zone (for moderate or less serious patients respectively) to the concerned department like surgery, neurosurgery, orthopaedics, etc. by 48 hours of their admission for inpatient care, however, it is observed that this shifting usually takes longer time probably due to higher bed occupancy rates in the concerned departments also.

According to World Health Organization (WHO), level of satisfaction is an important measurement where patient care is concerned.^[14] Present study reported that 78.9% of the patients were satisfied about the services they received from the hospitals. Similar results were seen in other studies by Sharma et al, and Pankaj Kumar et al. from India, where 73% and 78% of the respondents were satisfied with the hospital service.^[15,16] In the present study, around 9.6% of the patients have reported that the services need to be improved, therefore it would be very useful to analyze their responses, and it would also serve as a better guide for the administration to improve their services.

The present study has few limitations and short span of observation was one of those. Other than this, the design of this study was observational which might not reflect the accurate situation of this trauma care center as OPD patients have not included in our study. Good communication is important factor responsible for patient satisfaction. In this study, 100% of patients received answers or response from the doctors always or sometimes while nearly 88% of them were responded always or sometimes by the nurses. A great deal of satisfaction comes from good soft skill of the health care workers. Studies have shown that good communication from physicians in terms of their attitude, explanation of conditions, level of care, emotional support and involving patients in their decision making were more influential factors compared to the clinical skills and hospital tangibles for patients.^[17]

Conclusion:

In the present study, a majority of the patients were satisfied with the services provided in the newly established trauma care centre in the state. Responses from patients revealed several factors on which the hospital needs to focus in order to improve the quality of services, especially in the area of availability of medicines, confidence and trust on the nursing staff and food quality.

Recommendation:

Findings from this study would enable the hospital authority to identify the gaps in service and prepare new policies in overall management of trauma patients. Moreover, the public satisfaction of a health facility relates to the overall development in the public health centre.

Acknowledgement:

The authors are thankful to, then In-charge, Trauma Care Centre of the tertiary care hospital for his kind support for collection of data. The authors are indebted and thankful to the Department of Health Research (DHR), Govt. of India. Authors are also grateful to all the technical staffs of MRU of the hospital for their participation and successful completion of this study.

Declaration:

Funding: Received from Department of Health Research (DHR), Ministry of Health & Family Welfare, Govt. of India, New Delhi through Multi-disciplinary Research Unit (MRU) of the tertiary care hospital of the state.

Conflict of Interest: Nil

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