ORIGINAL ARTICLE

Level of satisfaction in patients/attendants admitted with traumatic brain injury at an advanced ER/Casualty in a Tertiary Care Teaching Hospital

M Veera Prasad[1], S Satish Kumar[2], Amit Agrawal[3], D Rama Mohan[4]

1. Department of Hospital Administration, Narayana Medical College Hospital, Chintharedypalem, Nellore, Andhra Pradesh, India. 2. Department of Emergency Medicine, Narayana Medical College Hospital, Chintharedypalem, Nellore, Andhra Pradesh, India. 3. Department of Neurosurgery, Narayana Medical College Hospital, Chintharedypalem, Nellore, Andhra Pradesh, India. 4. Department of Hospital Adminsitartion, Narayana Medical College,Chintharedypalem, Nellore, Andhra Pradesh, India.

Correspondence: M Veera Prasad. Address: Department of Hospital Administration, Narayana Medical College & Hospital, Nellore-524003, Andhra Pradesh, India. E-mail: drveera2007@gmail.com

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Abstract

Background: The objective of the present study was to develop an instrument that could be helpful to measure the level of satisfaction with hospital services in cases of traumatic brain injuries.

Methods: The present pilot study was a prospective analysis of traumatic brain injury patients. The study was approved by the institutional ethical committee. The data was collected regarding demographics, clinical presentation, management offered, complications and survival. Patient satisfaction was measured by a validated questionnaire with six domains: information, human care, comfort, visiting, intimacy, and cleanliness. The data was collected in self-administered questionnaire to measure attendants' desires and expectations for a broad spectrum of frequently used services in a hospital. Attendants indicated their level of satisfaction by selecting responses ranging from poor=1, fair=2, good=3, very good=4 and excellent=5. Each domain was scored from excellent to poor, with higher scores indicating higher levels of patient satisfaction.

Results: During the pilot study period, data for a total 86 patients was collected. The mean age was 36.81 years (Age range 6-73 years, median-35.5 years). Mean hospital stay was 9.25 days (range 2-35 days, median 6.9 days). In present study almost all the patients were brought by close relatives. Most of the patients belonged to the low socio-economic status (coolie 33/86, farmers' 17/86). Sixty six patients made good recovery, 14 had moderate disability and 6 patients had severe disability at the time of discharge. The overall satisfaction level was classified into excellent, very good, good, average and poor. Details of the level of satisfaction and most of the time it was excellent to very good and good level of satisfaction. There were no averages or poor response.

Conclusions: We believe the scores obtained from the questionnaire from present pilot study can serve as baseline against which to compare the results from future surveys.

Key words

Patient satisfaction, Traumatic brain injury, Health care, Hospital services

1 Introduction

There has been increasing emphasis on the use of patient satisfaction to assess elements of quality of care and attempts to measure patient satisfaction and experience in public hospitals [1] and in many recent studies the issue of patient satisfaction has been addressed from public health facilities [2-7]. Traumatic brain injury (TBI) is a major acute injury problem resulting in disabling conditions and long-term costs to the society [8, 9]. The objective of the present study was to develop an instrument that could be helpful to measure the level of satisfaction with hospital services in cases of traumatic brain injuries.

Table 1. Details of patient satisfaction

	Excellent	Very Good	Good	Average	Poor
Guidance given to you/your care taker at Emergency/Casualty	49	26	11	-	-
Immediate availability of Wheel Chair/stretcher	52	19	15	-	-
Behavior of Security Personnel at ER	39	29	18	-	-
Arranging bed/couch at ER/Casualty	47	27	12	-	-
Your satisfaction on initial attention by Doctors at Casualty	52	20	14	-	-
Arrival of Neuro-surgeons & their attention	54	27	5	-	-
Attention & care of Nursing professionals	47	29	10	-	-
Atmosphere & ambience of ER/ Casualty	42	21	23	-	-
Seating/waiting facilities to your attendants	44	33	9	-	-
Arranging for lab samples reports	45	26	15		
Arranging for X-ray/Ultrasound/CT/MRI	45	26	15	-	-
Attention/care of Paramedical/Technicians	48	29	9	-	-
Counseling to your attendants at ER by doctors	49	32	5	-	-
Availability/attention of wheelchair/stretcher bearers to shift to OT/Radiology	52	28	6	-	-
Risk/complications explanation and counseling for surgery by doctors	48	22	16	-	-
Care in Post-Operative ward for surgery Patients	51	25	10	-	-
Nursing care in ICU/Ward/Room	49	23	14	-	-
Behavior of nursing staff in ICU Ward/Room	49	30	7	-	-
Availability of drugs from pharmacy	47	24	15	-	-
Behavior of Pharmacy staff	46	29	11	-	-
Housekeeping facilities (bed sheets, room clean, urine can etc.)	46	24	16	-	-
Toilets maintenance	48	23	15	-	-
Behavior of House Keeping Staff	44	24	18	-	-
Doctors treatment, attitude & counseling	43	29	14	-	-
Behavior of Patient Relations Executives	27	37	21	1	-
Behavior of Billing Staff	29	33	24	-	-
Discharge process	20	43	23	-	-
Counseling by doctors at the time discharge	23	43	20	-	-
How do you rate our overall services	41	35	10	-	-
How is your overall impression	46	36	4	-	-

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2 Material and methods

The present pilot study was a prospective analysis of some patients (n=86) who were admitted with the diagnosis of traumatic brain injury from April 2012 to July 2012 at Narayana Medical College Hospital, Nellore (AP) a rural tertiary care trauma center in Sothern India. The study was approved by the institutional ethical committee and the prior consent was taken either from patients or from responsible near ones. The data was collected by hospital staff in a pre-designed proforma. Details regarding age, sex, mechanism of trauma (blunt versus penetrating), Injury Severity Score (ISS), days on mechanical ventilation, Glasgow coma scale (GCS) [10] score on presentation, computerized tomography (CT) scan findings, timing of tracheostomy, duration of tracheostomy, days on mechanical ventilation before/after tracheostomy, length of stay in the ICU, length of stay in ICU after tracheostomy, presence of pneumonia, tracheostomy complications and survival. The discharge details were noted and the clinical outcome was measured according to the Glasgow outcome scale (GOS) [11], where 1=dead, 2=permanent vegetative state, 3=severely disabled, 4=moderately disabled, 5=independent. All the details were recorded from the hospital records. The questionnaire was filled at the time of discharge. Patient satisfaction was measured and the data was collected in self-administered questionnaire to measure the patients and attendants' desires and expectations for a broad spectrum of frequently used services in a hospital. The questionnaire was developed by the first author. It was measured by asking different questions on a scale of excellent to poor. Their level of satisfaction was recorded by selecting responses ranging from poor=1, fair=2, good=3, very good=4 and excellent=5. Each domain was scored from excellent to poor, with higher scores indicating higher levels of patient satisfaction.

3 Statistical analysis

The data was then be computerized and subjected to statistical analysis, using Epiinfo™. The analysis was performed to provide summaries of demographic information, clinical and radiological abnormalities, management offered, outcome in term of satisfaction with clinical services and the various statistical parameters including mean and standard deviation were calculated.

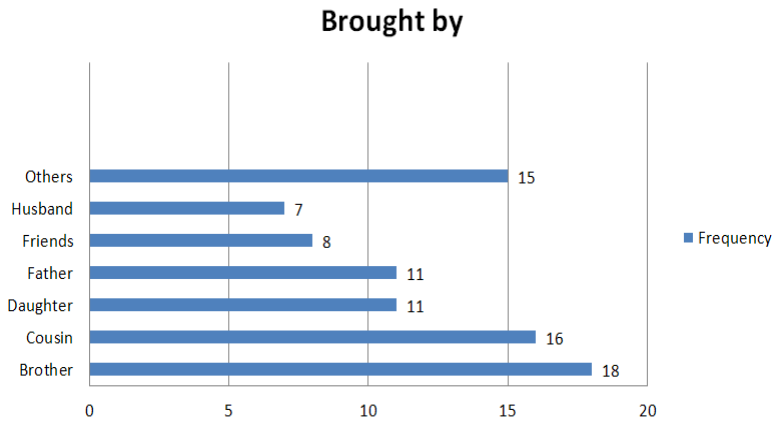

Figure 1. Details regarding who brought the patient to the hospital

4 Results

During the pilot study period data for a total 86 patients was collected. The mean age was 36.81 years (Age range 6-73 years, median-35.5 years). Mean hospital stay was 9.25 days (range 2-35 days, median 6.9 days). The analysis of the sample studied, shows that 84% patients were males and 16% were females. 67% patients were in 2nd to 5th decade of life. In present study, almost all the patients were brought by close relatives or friends (Figure 1). Most of the patients were

coolie 33/86 and farmers' 17/86 (Figure 2). Sixty patients had mild head injury, 9 patients had moderate head injury and 17 patients had severe head injury at the time of admission. Common lesions were concussion head injury followed by skull fracture and cerebral contusions. Twelve patients had associated spinal injuries and 8 patients had clavicle fracture. Fifty six patients received treatment at another hospital before reaching to our hospital. During hospital stay 3 patients in severe head injury group with spinal cord injury developed pressure ulcers those healed with dressing and conservative management. Sixty six patients made good recovery, 14 had moderate disability and 6 patients had severe disability at the time of discharge. The overall satisfaction level was classified into excellent, very good, good, average and poor. Details of the level of satisfaction are shown in Table 1 and most of the time it was excellent to very good and good level of satisfaction. None of the cases there was average or poor response.

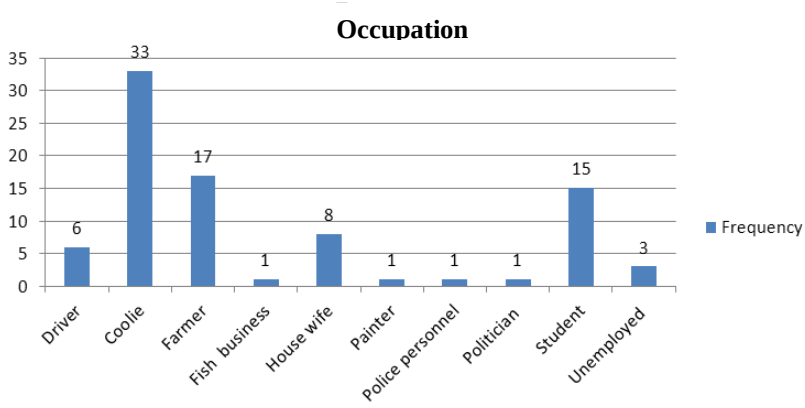

Figure 2. Details regarding the patient occupation

5 Discussion

Evaluation of patient satisfaction should be a part of continuous improvement. Patient satisfaction, as a method of evaluating health services is essential. Whilst satisfaction with delivered services is important, focusing on it alone fails to address customer needs [12, 13]. Satisfaction, like many other psychological concepts, is easy to understand but hard to define and not some pre-existing phenomenon waiting to be measured, but a judgment people form over time as they reflect on their experience [14]. The paucity of data, incomplete understanding of the problem and non-availability of definitive guidelines has been a challenge from many studies from developing countries [14, 15]. Patient satisfaction is an important benchmark and one of the most widely used outcome measure to assess health care providers [16-20]. Patient satisfaction is generally considered as the extent to which the patients feel that their needs and expectations are being met by the services provided in a hospital setting [21].

The concept of patient satisfaction is import to understand as it is well recognized that patients attending each hospital are responsible for spreading the good image of the hospital and therefore satisfaction of patients attending the hospital is equally important for hospital management [7]. As in many other studies we tried to understand the views of our clients regarding major items on their attitude including (1) selection of hospital and admitting procedures, (2) room accommodations, (3) food, (4) nursing care, (5) medical care, (6) care provided by other hospital personnel, and (7) discharge instructions [22]. In most of the studies the questions were generally asked are of two types: those that requested factual information and those that requested the patient to make a value judgment regarding the degree of satisfaction associated with a specific aspect of his/her care. Examples of the factual types of questions regarding their disease and treatment and a clear explanation about them of their results in satisfaction related studies an opinion or value judgment included a 5-point Likert scale for response, such as (1) very satisfied, (2) satisfied, (3) no opinion, (4) dissatisfied, or (5) very dissatisfied [22]. One important question of this type requested on overall appraisal of the hospital stay: "Taking everything into account, how do you feel about the care and services you received during your hospital stay?" [22]

Traumatic brain injuries account for a significant proportion of admissions, expensive and demanding in terms of resources. And those who require more specialist assessment and treatment are usually transferred to the regional neurosurgical units. Head injuries [23] in present study the level of higher satisfaction may be due to the availability of high quality services at the same center. Most of the times, patients may not be in a position to reliably judge the accuracy of a diagnosis or treatment plan, but they can judge whether they have been provided with sufficient information and they can judge the demeanor and attitudes of their physicians and sub staff [24]. In accordance with the literature, the results of present study showed that the overall satisfaction was high and the patients were also satisfied with the ease of accessing care from this center [16, 25-31]. From the study in a tertiary care hospital in rural India, it was seen that majority of patients were satisfied with the services offered in the hospital, the waiting time for most of the patients was within one hour, except on some occasions and also majority of the patients were satisfied with the time spent by the doctors in consultations. The assessment of the services provided by nurses, security, receptionist and others also showed that most of patients were satisfied with the service. It is important to understand that most of the interaction of the patients and relatives involves with nursing and the paramedical staff in a hospital and their attitude is equally important. It has been emphasized when waiting time was prolonged than the friendliness of the nursing staff can help to improve the client satisfaction [7]. The overall satisfaction can be higher, however but when subjects asked about satisfaction for each service item individually the mean overall satisfaction dropped to 88.6% [32]. In our survey there was a high level of satisfaction with all aspects of care provided by the doctors, including the exchange of information, frequency of visits, and their technical skills [16].

Table 2. Patient satisfaction and assessment of customer services

Guidance given to you/your care taker at Emergency/Casualty	Excellent- Very Good- Good- Average- Poor
Immediate availability of Wheel Chair/stretcher	Excellent- Very Good- Good- Average- Poor
Behavior of Security Personnel at ER	Excellent- Very Good- Good- Average- Poor
Arranging bed/couch at ER/Casualty	Excellent- Very Good- Good- Average- Poor
Your satisfaction on initial attention by Doctors at Casualty	Excellent- Very Good- Good- Average- Poor
Arrival of Neuro surgeons & their attention	Excellent- Very Good- Good- Average- Poor
Attention & care of Nursing professionals	Excellent- Very Good- Good- Average- Poor
Attention & care of Paramedical Technicians	Excellent- Very Good- Good- Average- Poor
Atmosphere & ambience of ER/Casualty	Excellent- Very Good- Good- Average- Poor
Seating/waiting facilities to your attendants	Excellent- Very Good- Good- Average- Poor
Arranging for lab samples/reports	Excellent- Very Good- Good- Average- Poor
Arranging for X-ray, Ultrasound, CT/MRI	Excellent- Very Good- Good- Average- Poor
Counseling to your attendants at ER by doctors	Excellent- Very Good- Good- Average- Poor
Availability & attention of wheel chair/stretcher bearers to shift you to OT/ICU/Ward/Room	Excellent- Very Good- Good- Average- Poor
Risk & complications explanation and counseling for surgery by doctors	Excellent- Very Good- Good- Average- Poor
Care in Post-Operative ward (for surgery Pts.)	Excellent- Very Good- Good- Average- Poor
Nursing care in ICU/Ward/Room	Excellent- Very Good- Good- Average- Poor
Behavior of nursing staff in ICU/Ward/Room	Excellent- Very Good- Good- Average- Poor
Availability of drugs from Pharmacy	Excellent- Very Good- Good- Average- Poor
Behavior of Pharmacy staff	Excellent- Very Good- Good- Average- Poor
Housekeeping facilities (bed sheets, room clean, urine can etc)	Excellent- Very Good- Good- Average- Poor
Toilets maintenance	Excellent- Very Good- Good- Average- Poor
Behavior of House Keeping Staff	Excellent- Very Good- Good- Average- Poor
Doctors treatment, attitude & counseling	Excellent- Very Good- Good- Average- Poor
Behavior of Patient Relations Executives	Excellent- Very Good- Good- Average- Poor
Behavior of Billing Staff	Excellent- Very Good- Good- Average- Poor
Discharge process	Excellent- Very Good- Good- Average- Poor
Counseling by doctors at the time discharge	Excellent- Very Good- Good- Average- Poor
How do you rate our overall services	Excellent- Very Good- Good- Average- Poor
How is your overall impression	Excellent- Very Good- Good- Average- Poor

Patient satisfaction surveys are useful in gaining an understanding of user's needs and their perception of the service received [7]. It has been reported that the Indian consumers are being different from their western counterpart and the methods perfected elsewhere may need to be adapted to the need of national climate and among hospital patients [33]. Usually the high level of satisfaction is attributed to the literacy level and hence better understanding of how the health care provider is supposed to be and what he is supposed to do [25]. In contrast to this, in present study most of the respondents were from rural areas with not much literacy level. It was also noted in comparison to the services available near to the place of their residence; all of them received a high quality comprehensive care. We believe this was as one of the major reason for the high level of satisfaction. Good communication between patients and care providers has been described as the single most important component of good medical practice, not only because it identifies problems quickly and clearly, but it also defines expectation and help to establish trust between the clinician and the patient. Good doctor-patient relationship is in itself is recognized as a therapeutic effect and also successful consultation have beneficial effect irrespective of any other therapy given [34, 35]. In contrast, bad communication, particularly, when the doctor appears indifferent, unsympathetic or short of time make most patients dissatisfied [34]. Although reputation or consumer recommendation is an important source of information for patients or families while choosing the hospital, however hospital's reputation is determined mainly by its clinical competence rather than interpersonal skills [36].

6 Conclusion

Assessment, monitoring and exploration of patient complaints and patient satisfaction data provide one indicator of quality of care [37] and patients and their relatives are the only source of data for information on the dignity and respect with which they were treated and the best source of information [38]. In summary, “a hospital may be well organized, ideally located and well equipped but it will fail in its responsibility to provide quality care if patient satisfaction is not of a high caliber” [39]. We believe the scores obtained from the questionnaire from present pilot study can serve as baseline against which to compare the results from future surveys. Also the present pilot study will help to provide a better understanding of the patterns of traumatic brain injuries, their impact on clinical outcome as well as will also assist health care providers to plan and manage the treatment of traumatic brain injuries in remote rural areas.

Conflict of interests

The authors declare that they have no conflicts of interests.

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