Available online at www.sciencedirect.com

SciVerse ScienceDirect

journal homepage: www.elsevier.com/locate/jcot

Original article

Study of patient satisfaction in a surgical unit of a tertiary care teaching hospital

P.H. Mishra^{a,*}, Shakti Gupta^b^a Dean cum Administrator, Indian Spinal Injuries Centre, Vasant Kunj, New Delhi 110070, India^b Prof & HOD-Hospital Administration, All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India

ARTICLE INFO

Article history:

Received 10 March 2012

Accepted 5 April 2012

Available online 16 June 2012

Keywords:

Hospital

Expectation

Patient's satisfaction

Satisfiers

Dissatisfiers

ABSTRACT

Background: The hospitals have evolved from being an isolated sanatorium to a place with five star facilities. Patients and their relatives coming to the hospital not only expect world-class treatment, but also other facilities to make their stay comfortable in the hospital. This change in expectation has come due to tremendous growth of media and its exposure, as well as commercialization and improvement in facilities. The aim of this study was to evaluate the level of patient/relatives satisfaction at tertiary care teaching hospital and feedback from them for improvement of the same.

Methods: The study was conducted by

1. Review of available national and international literature on the subject.

2. Carrying out survey amongst 50 patients and their relatives at one of the surgical unit by using structured questionnaire.

3. By analyzing the data using appropriate statistical methods.

Results: Eighty two percent people were satisfied with the service at admission counter while 81% were satisfied with room preparation at the time of admission. The nursing services satisfied 80% of people while 92% were satisfied with explanation about disease and treatment by doctor. The behavior of nurses, doctors and orderlies satisfied 92, 92 and 83% of people. The cleanliness of toilets satisfied only 49% while diet services satisfied 78% of people.

Conclusion: The five major satisfiers were behavior of doctors, explanation about disease and treatment, courtesy of staff at admission counter, behavior and cooperation of nurses. The five major dissatisfiers were cleanliness of toilets, quality of food, explanation about rules and regulation, behavior of orderlies and sanitary attendant and room preparedness.

Copyright © 2012, Delhi Orthopaedic Association. All rights reserved.

1. Introduction

The dissatisfaction to medical treatment dates back to ancient time. Alexander the Great is quoted as saying 'I die by the help of too many physician'. The emperor Adrian directed the

following words to be inscribed on his tomb 'A multitude of physicians have destroyed me'.¹

Patient Satisfaction can be defined as fulfillment or meeting of expectation of a person from a service or product.

* Corresponding author.

E-mail address: drphmishra@rediffmail.com (P.H. Mishra).

0976-5662/\$ – see front matter Copyright © 2012, Delhi Orthopaedic Association. All rights reserved.

doi:10.1016/j.jcot.2012.04.002

When a patient comes to a hospital, he has a pre-set image of the various aspects of the hospital as per the reputation and cost involved. Although their main expectation is getting cured and going back to their work, but there are other factors, which affects their satisfaction. Sometimes they might have rated a hospital very low on the basis of information they have got from different sources, but they find it above their expectation and they are satisfied. Similarly if they have got a very high expectation from a hospital, but if they find it below their expectation, they will not be satisfied.

Hospitals have expanded in terms of availability of specialties, improved technologies, facilities and increased competition. The expectations of patients and their relatives have increased many folds. Consumer expectation in any medical experience influence the people to decide about the medical facility they are going to use. High expectation from a medical organization is a positive indicator of its reputation in the society and is very important for attracting patients, where as low expectation deters patients from taking a timely medical help, thus negatively affecting patient as well as the medical care provider. However a very high and unrealistic expectation may lead to dissatisfaction despite reasonable good standards of medical practice.

Previously there were very few Government hospitals which charged the patient for treatment. Hence the expectations were also very minimal. But now the scenario has changed. The hospitals (even Govt.) have started charging the patient in the name of user charges resulting in very high cost for providing care. With the advent of Consumer Protection Act (1986) the patient's expectation has also gone very high. Now hospitals have to be very careful about patient dissatisfaction, to avoid any unnecessary litigation.

Knowledge of expectation and the factors affecting them, combined with knowledge of actual and perceived health care quality, provides the necessary information for designing and implementing programs to satisfy patients.

Human satisfaction is a very complex concept that is affected by a number of factors like life style, past experience, future expectation and the values of individual and society in terms of ethical and economical standings.

Maslow in 1954 gave hierarchy of needs for satisfaction and motivation of individuals. According to him, needs generally have priority in following order.

1. Physiological
2. Safety & security
3. Sense of belonging
4. Esteem
5. Self-actualization.

1.1. Literature review

Currently available national and international literature was reviewed to understand the concept of patient satisfaction.

1.2. International studies

Codman's² "Assessment of the outcomes of care" investigated four aspects of care for each case received. (1) The physicians'

or surgeons' input. (2) The hospital's contribution. (3) The patients' disease or condition and (4) The factors which deterred patient's co-operation. Pathology reports help determine whether surgery was indicated in a case of Appendectomy or not. They have had a wide application in the evaluation of quality of care. Ovariectomies and Hysterectomies were examined by Doyle.³ Because many of these outcome measures do not assess the overall performance of the organization, Roemer had developed a method to adjust hospital death rates (which were calculated for all patients and all conditions) so that they could be used as an overall measure of the quality of care. He called his index as "Surgery adjusted Death Rate" (SADR). SADR tried to overcome the distortion when hospital death rates are compared which are not adjusted for patient mix and particularly severity of illness of the hospital's patient population.

Hendrickson et al⁴ examined effects of implementing nursing information computer system in 17 Hospitals in New Jersey, USA. They observed that staff impression of the effects of system was positive; documentation was better (more readable). "Effects of a hospital based managed care on the cost and quality of care" was studied by Blegan, MA et al⁵ on women delivered by Caesarean in the maternity unit at a tertiary level university hospital of Iowa, USA. They found decrease in ALS (Average length of stay) by 13.5% and the average cost decreased by 13.1% and patient's perception quality of care increased from 4.26 to 4.41 on a 1–5 scale.

Cock DJ⁶ conducted a "continuous quality improvement study" in their medicine department of Mc Master University, Faculty of Health Sciences, Ontario by monitoring patterns in Medical teaching ward. They found that in 68% of cases, oxygen therapy was initiated by house staff, nurse initiated therapy in 18% of cases, but discontinued it more often than any other health worker. Thirty percent of patients on oxygen did not meet the criteria set by American College of Chest Physician. This showed that practice guidelines based on best available evidence are needed to increase the efficiency of Oxygen use.

Houston and Pasanen⁷ employed a patient satisfaction questionnaire with patients recently discharged after at least 2 days stay at a large hospital. Care was evaluated extremely favorable with the highest rating given to physician and nursing care. Most dissatisfaction was due to that the physicians did not disclose details of their illness. Seventeen percent were reluctant to return to the medical care facility.

1.3. Indian studies

Khosla et al¹⁸ found in their study, emphasis by the patients of two Delhi Hospital on varying needs according to their income groups:

- a. Low Income Group – improved physical facilities, improved diet and relaxation of visiting hours, better service by class IV staff, human and sympathetic behavior and transport facilities after discharge.
- b. Middle and High Income group – personal and prompt attention of doctors, better behavior by class IV staff, improved physical facilities, relaxation of visiting hours.

Jain and Prasad⁹ adopting interview techniques studied the opinions of 400 patients admitted to medical wards of Gandhi memorial College and associated hospitals and reported about patient satisfaction as shown in Table 1.

Bhatia,¹⁰ in his study among orthopedic patients found that the dissatisfaction was usually with food, entertainment, visiting hours and lack of proper interaction with the staff, i.e. doctors, nurses etc. The patients also complained of lack of privacy.

Thimmappaya et al¹¹ through a hypothesized model, studied a relationship between patient satisfaction, hospital status, employee satisfaction and service. This model assumes that the performance of the hospital will depend upon proper functioning of its social system, because practically every person working in the hospital depend upon some other person, since there is extensive diversion of labor and highly specialized work of each person. Doctors, nurses and others cannot function separately or independent of one another. Their work is mutually supplementary, interlocking and interdependent. If the system has to function properly and has to attain its objectives, its members and departments have to be highly co-ordinated. Job satisfaction is one of the conditions for better patient co-ordination and workers morale. Better co-ordination and job satisfaction of the employees will result into better patient care and satisfaction and consequently it will earn a better reputation for the hospital in the community. Good reputation of the hospital improves the status of its employees, which also contributes to their job satisfaction. Job satisfaction again via services leads to patient satisfaction to hospital reputation etc.

As a part of this study Chopra¹² carried out participant's observation in patient role in a hospital and confirmed through a flow chart that the aforesaid two factors led to the better output, i.e. recovery, which in turn led to patient satisfaction. In their report, hospital food, communication, discharge policy, use of influence, nursing orderly and sweepers were identified as dissatisfying factors. However, it was concluded that best possible hospital services might take care of patient dissatisfaction but to attain positive satisfaction patients must have a good medical care.

2. Method

The study was conducted by

1. Review of available national and international literature on the subject.
2. Carrying out survey amongst 50 patients and their relatives at one of the surgical unit by using structured questionnaire.

Table 1 – Jain and Prasad's observations about patient satisfaction.

Factor	Satisfied	Unsatisfied
1. Diet	66.4%	33.6%
2. Doctor-patient relationship	70%	30%
3. Nurse-patient relationship	78.3%	21.7%
4. Ward boys and sweeper	43%	57%
5. Reaction towards medical treatment	61.5%	38.5%

3. By analyzing the data using appropriate statistical methods.

3. Observation

The study about patient satisfaction in one of the surgical unit was conducted by circulation of structured questionnaires amongst 50 patients and relatives of private and general wards. The questions asked were about the process of patient getting admitted, their reception in the ward, room preparation, behavior of doctors, nurses, orderlies, food services, cleanliness of toilet etc. The questions were given same scale from excellent to poor for uniformity of comparison. There were two open-ended questions for their opinion about the problems and suggestions for improvement of services (Tables 1–2).

1. **Admission & Reception** – There is a long queue of patients waiting for admissions causing delay in admissions of seriously ill patients. There is procedure of issuing only one attendant's pass. However if a patient is sick or attendant is a lady and the attendant has to go out to get any medicines etc, then he has problem. Seventeen percent patients felt it was excellent, 25% patients felt it was very good, 40% felt good, 18% felt it was average. None of them said it to be poor. Overall 82% people were satisfied with the services at admission counter.
2. **Room preparation at the time of admission** – Seven percent patients felt it was excellent, 48% patients felt very good, 25% felt good, 20% felt it was average. Eight percent of them said it to be poor. As a whole 81% people were satisfied with the room preparation at the time of admission.
3. **Nursing services** – Seven percent patients felt it was excellent, 48% patients felt very good, 25% felt good, 20% felt it was average and one of them said it to be poor. So on a whole 80% people were satisfied with the Nursing services.
4. **Cleanliness of toilets** – None of the patient felt it was excellent, 7% patients felt very good, 42% felt good, 42% felt it was average. 9% of them said it to be poor. On the

Table 2 – Patients/relatives response to questionnaires in the present study.

Services	Excellent	Very Good	Good	Average	Poor
Admission & Reception	17	25	40	18	
Room Preparation		7	48	25	20
Nursing		7	48	25	20
Cleanliness	0	7	42	42	9
Briefing about rules	3	13	50	14	20
Medical care		37	40	17	3
Diet services	3	35	40	22	
Behavior of Nurses		10	42	42	6
Behavior of Doctors		50	30	17	
Behavior of Orderlies	13	26	42	19	13

Table 3 – Patients/relatives response to questionnaires in present study.

whole only 49% people were satisfied with the cleanliness of the toilets.

5. **Briefing about policies, rules and regulations** – Three percent patients felt it was excellent, 13% patients felt very good, 50% felt good, 14% felt it was average and 20% of them said it to be poor. So on a whole 76% people were satisfied with the briefing about rules and regulations at the time of admission. It was observed that the briefing about the rules and regulations of hospital had got 40% average and 22% of poor response. It was the biggest dissatisfier (Table 3).
6. **Doctors** – Thirty seven percent patients felt it was excellent, 40% patients felt very good, 17% felt good, 3% felt it was average. 3% of them said it to be poor. On total 94% people were satisfied with the explanation about disease and treatment by doctors.
7. **Diet services** – Three percent patients felt it was excellent, 35% patients felt very good, 40% felt good, 22% felt it was average. None of them said it to be poor. Food services have got 22% average response. It was the second major dissatisfier. Overall, only 78% people were satisfied with the quality of food served in the hospital.
8. **Behavior of Nurses** – Ten percent patients/attendants felt it was excellent, 42% patients felt very good, 42% felt good, 6% felt it was average. None of them said it to be poor. On a whole 92% people were satisfied with the behavior of Nurses.
9. **Behavior of Doctors** – Fifty percent patients/attendants felt it was excellent, 30% patients felt very good, 17% felt it was good. Only one of them (3%) said it to be poor. Some people felt that the doctors have become less sensitive and empathetic to their problems. The new generations of doctors should be trained in soft skills and value of empathic care must be re-emphasized. However 92% people were satisfied with the behavior of Doctors.
10. **Behavior of Orderlies/sweeper** – Thirteen percent patients/attendants felt it was excellent, 26% patients felt very good, 42% felt it was good. 19% average, 13% of them said it to be poor. It was felt that there is less sensitivity about protocols to avoid cross infection amongst staff. Some people complained about the bad behavior of

Hospital and Sanitary attendants, although they did not give in writing. The shortage of Hospital attendants for taking the patient for investigations was also reported. On a whole 83% people were satisfied with the behavior of Orderlies/sweeper.

4. Recommendations

On interaction with patients and their attendants, following suggestions came out for improvement:

1. **Admission** – There is procedure of issuing only one attendant's pass. However if a patient is sick or attendant is a lady and the attendant has to go out to get any medicines etc, then he has problem. The policy of issuing two passes may have to be reconsidered. There is a long queue of patients waiting for admissions causing delay in admissions of seriously ill patients. The criteria of admissions should be clearly defined and told to all the doctors. The reception counter should have facility for photocopier with charges as the patients have to go to distant places for the same before getting discharge.
2. **Room preparation** – There were many complaints of cockroaches and rodents in the ward. The pest control department should do regular sprays and take effective measures for controlling them. Room preparation should be improved by more cleaning, anti pest and anti rodent measures. The quality of washing of bed sheets etc should be improved.
3. **Nurse's cooperation** – Over the years many nurses have been promoted to supervisor grades. Hence the working number of staff nurses has decreased. This has started showing in their efficiency and behavior. More number of staff nurses should be posted for patient care.
4. **Toilets** – The cleanliness of toilets should be improved. It may be done twice a day. Frequent and surprise checks by sanitary inspectors and administrators will instill a sense of responsibility and alertness in sanitary attendants.

5. It was observed that the **briefing about the rules** and regulations of hospital had got 40% average and 22% of poor response. It was the biggest dissatisfier. Although smoking is strictly prohibited in the hospital, still some people including staff are found openly smoking in the hospital. The patients and their relatives should be clearly informed in writing about the rules and regulation. This should be available in Hindi also.
6. **Explanation about disease and treatment by doctors** – All tests to be carried out were not told at the time admission, which caused frequent delay in treatment and procedures. Patients require more information about their disease and treatment. Patient should be explained in detail about the tests and procedures to be carried out and these should be pre-planned and if possible may be got done from the OPD itself. There were no guidelines for attendants about care of postoperative patients.
7. **Food services** have got 22% average response. It was the second major dissatisfier. The quality of food, especially quality of chapattis, and its presentation should be improved.
8. **Behavior of Nurses** – Over the years number of senior nurses have increased and working staff nurses have decreased. This is causing increased stress amongst them leading to some downfall in their behavior.
9. **Behavior of Doctors** – Although 100% of responses showed that the doctors were above good level, yet some (2%) people felt that the doctors have become less sensitive and empathetic to their problems. The new generations of doctors should be trained and value of empathic care must be re-emphasized.
10. **Behavior of Orderlies/sweeper** – The patients were disturbed by frequency of visits by different staff at different time. The timing for activities like nursing, cleaning, ward rounds should be fixed, so that the patient is mentally prepared for the same and can take rest at other time. Some people complained about the bad behavior of hospital and sanitary attendants. There is no sensitivity about avoiding cross infection in staff like washing of hands. They should be trained about the importance of hand washing and other universal precautions, before and after touching any patient. They should be regularly trained and sensitized about how to improve their image and behavior.
11. With the introduction of **consumer charges**, the hospital services have become costly for poor people. Being a government hospital, people expect it to be free of cost. This should be explained to the patient before getting admitted in the hospital. However this policy of revising rates may be looked into.
12. There should be **package charges** for all procedures to avoid running around by patient's attendant for minor requirements. The prescriptions should be given at least for 3 days with condition of return ability in case of non-utilization.
13. **Media** – One patient observed that there are many negative articles about Hospitals, in the newspapers. They should cover positive achievements also. The media coverage should be improved to enhance the image of the Hospitals by giving more publicity to the good work being done.

5. Conclusion

It was found in the present study that most of the patients are satisfied with most of the services in the Cardio Thoracic and Neurosciences Center.

Five major satisfiers were:

1. Behavior of doctors
2. Explanation about disease and treatment
3. Courtesy of staff at admission counter
4. Behavior of nurses
5. Cooperation of nurses.

Five major dissatisfiers were:

1. Cleanliness of the toilet
2. Quality of the food
3. Explanation about rules and regulations
4. Behavior of Hospital and sanitary attendants
5. Room preparation.

Conflicts of interest

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

REFERENCES

1. Lewis CE. The state of the art of quality assessment – I. *Med care*. 1971;12:799–806.
2. Codman EA. *A Study of Hospital Efficiency: The First Five Years*. Boston Thomas Todd Co; 1916.
3. Doyle JC. Unnecessary ovariectomies, study based on removal of 704 normal ovaries from 546 patients. *JAMA*. 1952;148:1105–1111.
4. Hendrickson G, Kovner CT, Knickman JR, Finkler SA. Implementation of a variety of computerized bedside nursing information. *Comput Nurs*. 1995;13:96–102.
5. Blegan MA, Reiter URC, Goode CJ, Murphy RR. Outcomes of hospital based managed care: a multivariate analysis of cost and quality. *Obstet Gynaecol*. 1995;86:809–814.
6. Cock DJ; Continuous Quality Study, Mc. Master University, Faculty of Health Sciences, Ontario.
7. Houston CS, Pasanen WF. Patient's perception of hospital care. *Hospitals*. 1972;46:70–74.
8. Khosla JN, et al. *Citizen and Hospital Administration – A study Under Taken for Administrator Reforms Commission*. New Delhi: Indian Institute of Public Administration; 1969.
9. Jain VC, Prasad BG. A Study of Hospitalised Patients, Attitude Towards Ward Facilities and Ward Services in the General Medical Wards of a Teaching Hospital. *Ind Med Gazette, Calcutta*. 1969;vol. 9(8):3–16.
10. Bhatia AK. Patient perception of needs & problems in the Hospital setup. *Int J Health Educ*. 1971;14:145–150.
11. Thimmappaya A, Agrawal KG. Comparing a "good" and a "bad" hospital for patient satisfaction, ward social system, community image and inter-role perceptions. *Ind J Appl Psych*. 1973;10:26–32.
12. Chopra V. Participant Observations in Patient's Role in a Small Hospital, NIHFV Research Project Report No-5.