Research Article

Measuring patient satisfaction: a need of the day for tertiary care services

Chandrashekhar Mahakalkar, Meghali Kaple, Niket Jain, Parag Jaipuria, Dhirendra Wagh, Prateek Laddha

Department of Surgery, Jawaharlal Nehru Medical College, Sawangi (Meghe), Wardha, Maharashtra, India.
Correspondence to: Chandrashekhar Mahakalkar, E-mail: cmahakalkar@rediffmail.com

Received December 13, 2014. Accepted January 4, 2015

Abstract

Background: Patient satisfaction is an important measure as it is a primary means of measuring the effectiveness of health-care delivery and success of health-care facility.

Objective: To evaluate the satisfaction level of the patients admitted in surgical wards.

Materials and Methods: It was a hospital-based cross-sectional questionnaire based study carried out at Acharya Vinoba Bhave Rural Hospital (AVBRH), Sawangi (Meghe), Wardha, Maharashtra, India. The study was conducted from February 2014 to May 2014 among the patients admitted in surgical wards of AVBRH with a minimum hospital stay of 2 days. The study was conducted for 4 months involving 210 patients.

Results: The total number of patients involved in the study was 210 and male-to-female ratio was 2.6:1. The mean satisfaction level for admissions and discharge services was 130 ± 28.80104 (SE = 12.88022) and it was statistically significant (p = 0.00148). The mean satisfaction level for physician services was 128.50 ± 30.94484 (SE = 15.47242) and for nursing services was 95.3333 ± 16.16581 (SE = 9.33333). The overall level of satisfaction (75.24%) was good.

Conclusion: Assessments of patient satisfaction and evaluation of the factors for dissatisfaction are relevant to strengthen the bonding between the health-care facility and the faith of a community. The cost effectiveness of the services provided would also go a long way to maintain the bond between the doctor and the patient for the achievement of the optimal level of health of the people.

KEY WORDS: Patient satisfaction, admission discharge services, diagnostic services, dietary services, physician and nursing services, tertiary care hospital

Introduction

A patient's experience within a hospital environment is based on numerous encounters with a wide variety of individuals and locations. The first encounter is with the facility's parking lot, followed by physically accessing the facility, the admissions process, encounters with physicians, nurses, lab personnel, and other service providers and their respective physical locations, including patient rooms and the care they receive while in their room, the discharge process, and finally the billing/payment process. There is any number of factors that could impact the patient's perception of the care provided throughout an inpatient stay.

Patient satisfaction is as important as other clinical health measures and is a primary means of measuring the effectiveness of health-care delivery. The current competitive environment has forced health-care organizations to focus on patient satisfaction as a way to gain and maintain market share. If you don't know what your strengths and weaknesses are, you can't compete effectively.

Mismatch between the patient expectation and the service received is related to decreased satisfaction.[1] Therefore,

Access this article online	
Website: http://www.ijmsph.com	Quick Response Code:
DOI: 10.5455/ijmsph.2015.13122014135	

assessing patients' perspectives gives them a voice, which can make public health services more responsive to people's need and expectations.[2,3] The primary goal of a tertiary care hospital as a highest level of health-care provision is to provide best possible health care to the patients. Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the health facilities.[4]

Patient satisfaction is deemed to be one of the important factors that determine the success of health-care facility. The real challenge is not only getting ready with mere requirements but also delivering services ensuring good quality. Thus, there is a need to assess the health-care systems regarding patient satisfaction as often as possible.[5] Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the health facilities. But it is difficult to measure the satisfaction and gauze responsiveness of the health systems as not only the clinical but also the non-clinical outcomes of care do influence the customer satisfaction.[6] The aim of the present study is to evaluate the satisfaction level of the patients admitted in surgical wards of Acharya Vinoba Bhave Rural Hospital, Sawangi (Meghe), Wardha, a tertiary care hospital and medical college under Datta Meghe Institute of Medical Sciences (a deemed university).

Materials and Methods

It was a hospital-based cross-sectional questionnaire-based study carried out at Acharya Vinoba Bhave Rural Hospital (AVBRH), Sawangi (Meghe), Wardha, a 1206 bedded tertiary care hospital attached to Jawaharlal Nehru Medical College (JNMC), Sawangi (Meghe), Wardha under Datta Meghe Institute of Medical Sciences (a deemed university).

The study was conducted from February 2014 to May 2014 among the patients admitted in surgical wards of Acharya Vinoba Bhave Rural Hospital with a minimum hospital stay of 2 days. It was a prospective, cross-sectional descriptive study using a structured questionnaire. The study was conducted for four months involving 210 patients. Patients admitted in surgical ICU, casualty. Critically ill patients, pediatric patients, and patients with head injury and with altered sensorium were excluded from the study. The study performed using a structured questionnaire that involved parameters to evaluate quality of clinical services provided by the clinicians, availability of various medicine, behavior of doctors and other health staff, cost of the services provided in hospital, hospital infrastructure, physical comfort, cleanliness, dietary services, admission and discharge procedures, and laboratory services.

Results

A total 210 patients were enrolled in the study, maximum 143 (68.10%) were between 21 and 40 years, followed by 41 (19.52%) between 41and 60 years, 23 (10.96%) were less than 20 years, and remaining 03 (1.42%) above 61 years. Male to female ratio was 2.6:1. About 94.29% respondents were literate. Maximum numbers of respondents 119 (56.66%) were graduate, 38 (18.10%) were educated up to matriculation level, and 12 (5.71%) were illiterate. Most of the females 46 (21.91%) were housewives and maximum males 84 (40%) were unskilled laborers, 32 (15.24%) were unemployed and 27 (12.85%), 21 (10%) were skilled laborers and students respectively. Majority 112 (53.34%) have their earnings between Rs. 2000 and 5000, followed by 46 (21.90%) between Rs. 5000 and 10,000, only 20 (9.52%) more than Rs.10, 000, and the rest below Rs 2000. Maximum numbers of respondents 108 (51.42%) were admitted for more than 5 days, followed by 55 (26.19%) for 2–5 days and 47 (22.39%) for less than 2 days.

Levels of satisfaction for admissions and discharge services were evaluated by using five-point Likert scale and results are shows in Table 1.

About 65% patients replied the behavior of the doctors as satisfactory, whereas about 55% patients were satisfied with the behavior of the nurses and only about 11% patients were satisfied with the behavior of Class III and Class IV workers [Table 2].

Most of the patients were satisfied with the physicians as well as nursing services [Table 3]. The satisfaction was more for the diagnostic ability and responsiveness of the physicians, but the explanation of tests, procedures, treatments, and courtesy and respect given (friendliness) was around 50%.

Nursing attention and responsiveness to needs, explanation of procedures, tests, and treatments were just around 50% and consideration for family and visitors was just around 37%.

Table 1: Level of satisfaction for admissions and discharge services

Satisfaction of the patients	Satisfactory	Average	Poor
Ease of admissions process	120 (57.14%)	67 (55.83%)	13 (6.19%)
Staff attention	97 (46.19%)	69 (32.85%)	35 (16.66%)
Clear and understandable bill	172 (81.90%)	10 (4.76%)	23 (10.95%)
Ease of discharge process	117 (55.71%)	82 (39.04%)	10 (4.76%)
Cost of service provided	144 (68.57%)	26 (12.38%)	34 (16.19%)

Table 2: Hospital staff behavior

Behavior of hospital staff	Doctors	Nurses	Class III and Class IV workers
Poor	17 (8.09%)	36 (17.14%)	98 (46.66%)
Average	56 (26.66%)	58 (27.61%)	87 (41.44%)
Satisfactory	137 (65.25%)	116 (55.25%)	25 (11.90%)

Table 3: Physician and nursing services

Level of satisfaction	Satisfactory	Average	Poor
Physician services			
Physician responsiveness to questions	124 (59.04%)	63 (30%)	18 (8.57%)
Explanation of tests, procedures, and treatments	112 (53.33%)	56 (26.66%)	40 (19.04%)
Courtesy and respect you were given—friendliness	104 (49.52%)	89 (42.38%)	10 (4.76%)
Ability to diagnose problems	173 (82.38%)	34 (16.19%)	3 (1.42%)
Nursing services			
Nursing attention and responsiveness to needs	110 (52.38%)	56 (26.66%)	41 (19.52%)
Explanation of procedures, tests, and treatments	98 (46.66%)	67 (31.90%)	39 (18.57%)
Consideration for family and visitors	78 (37.14%)	87 (41.42%)	39 (18.57%)

Table 4: Diagnostic services

Level of satisfaction	Satisfactory	Average	Poor
ECG	111 (52.85%)	82 (39.04%)	10 (4.76%)
Radiology	93 (44.28%)	32 (15.23%)	47 (22.38%)
Biochemical/ pathology	145 (69.04%)	44 (20.95%)	12 (5.71%)
Physiotherapy	43 (20.47%)	24 (11.42%)	12 (5.71%)
Other department visits/calls	70 (33.33%)	58 (27.61%)	42 (20%)

Table 5: Physical facility

Level of satisfaction	Satisfactory	Average	Poor
Ease of access to the facility	54 (25.71%)	83 (39.52%)	66 (31.42%)
Comfort	89 (42.38%)	76 (36.19%)	39 (18.57%)
Drinking water	134 (63.80%)	52 (24.76%)	19 (9.04%)
Toilets	63 (31.98%)	84 (42.63%)	50 (25.39%)

Table 6: Overall satisfaction level

Level of satisfaction	No. of respondents
Completely satisfied	104 (49.52%)
Somewhat satisfied	54 (25.72%)
Neutral	12 (5.71%)
Somewhat dissatisfied	23 (10.96%)
Completely dissatisfied	17 (8.09%)
Total	210 (100%)

The patient showed satisfaction for flavor of food 114 (64.77%), variety of food 121 (68.75%), and for dietary counseling provided 95 (53.97%). The satisfaction level for dietary services was 62.49%.

Most of the patients were satisfied with the services provided by the various diagnostic centers [Table 4]. The less number of physiotherapy indicates that very few patients were referred to that facility. The main finding related to dissatisfaction was the waiting period in radiology and delay in attending calls by other departmental physicians.

Patients were satisfied for comfort in wards and facility of drinking water and somewhat less satisfied with conditions of toilets and ease of access to the facility [Table 5].

Satisfaction levels for hospital infrastructure was quiet good as 78 (37.14%) were fully satisfied and 79 (37.61%) level of satisfaction was average. 86 (40.95%), 74 (35.23%) were fully satisfied and level of satisfaction was average for infrastructure of wards. The patients appreciated the cleanliness in the wards, 124 (59.04%) were fully satisfied, 52 (24.76%) level of satisfaction was average and only 22 (10.47%) were not satisfied.

The patients were asked to tick over the overall level of satisfaction for the visit to the hospital at the five-point Likert scale. Table 6 shows that 104 (49.52%) respondents were completely satisfied with the hospital services provided to them during the visit and another 54 (25.72%) were somewhat satisfied, so near about 75.24% respondents were satisfied and 12 (5.71%) were neutral, whereas the rest 19.05% were dissatisfied with the service provided. The factors that satisfied the patients were cleanliness in the wards, associated facilities for physical rest, drinking water, and, the most important, the physician services and responsiveness to their problems and the uncomplicated administrative procedures.

Discussion

Health-care scenario is fast changing all over the world.[7] Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the hospitals.[8] Improved socioeconomic status and easier access to medical care have led to high expectations and demands from consumers of hospital services.[9] For health-care organization to be successful, monitoring of customer's perception is a simple but important strategy to assess and improve their performance.[10,11] A patient is the ultimate consumer of the hospital. He or she is the person in distress. He or she expects from hospital comfort, care, and cure.[8] Patient forms certain expectations prior to visit. Once the patient comes to the hospital and experiences the facilities, he or she may become either satisfied or dissatisfied. Human satisfaction is a complex concept that is related to a number of factors including lifestyle, past experiences, future expectations, and the value of both individual and society.[7] The goal of any service organization is creation of satisfaction among customers.

The mean satisfaction level for admissions and discharge services was 130 ± 28.80104 (SE = 12.88022) and it was statistically significant (p = 0.00148), mostly for the billing process and cost of the service provided.

About 65% patients replied the behavior of the doctors as satisfactory, 55% were satisfied by the behavior of the nurses, and only 11% patients were satisfied with the behavior of Class III and Class IV workers. This data is comparable with other studies where patients were more satisfied with behavior of doctors (87.76%) as compared to the behavior of nurses and Class III and Class IV workers (70.01% and 59.09%, respectively). It was found to be statistically significant ($p < 0.0001$).[12] Bhattacharya et al.[10] also reported 98.2% patients were satisfied with behavior of doctors, which is similar with the present study. Better level of education among doctors may be the reason for present study finding.

Health care is a high involvement service as it concerns the person's health and well-being. Health-care providers should manage quality through continuously redesigning process and understanding the factors that are highly associated with patient satisfaction. Staff behavior has the largest effect on patients' satisfaction in hospitals. Because inpatients associated with the hospital staff, they are provide not only a treatment but also mercy and concerned. The major concerning issues will always be with Class III and Class IV workers because of low educational standards, overwork, and non-responsiveness of the job.

Most of the patients were satisfied with the physicians as well as nursing services. The satisfaction was more for the diagnostic ability and responsiveness of the physicians, but the explanation of tests, procedures, treatments, and courtesy and respect given (friendliness) was around 50%. Nursing attention and responsiveness to needs, explanation of procedures, tests, and treatments were just around 50% and consideration for family and visitors was just around 37%. All these three parameters need to be improved because nursing services are the backbones of hospital care management after physicians. The mean satisfaction level for physician services was 128.50 ± 30.94484 (SE = 15.47242) and for nursing services it was 95.3333 ± 16.16581 (SE = 9.33333). In various studies, more patients were satisfied with doctor services than nursing services and the least for Class III and Class IV workers, 87.76%, 70.01%, and 59.09% respectively.[12]

The satisfaction level is lower for nursing services as compared to the physician services. The various reasons could be low educational status, workload in day-to-day activities, two parallel systems of administration—nursing administration and hospital administration, and lower job satisfaction.

The dietary units stand as the second major department of a hospital from the point of view of expenditure. Except for the well-established hospitals, patients are not happy with the quality of food supplied to them. That is why most of them get food from their houses or from relatives. There is a problem of excess diet consumption when compared to the number of patients in the hospital resulting huge expenditure. In this study, the satisfaction level for dietary services was 62.49%. This satisfaction level is more when compared with other studies 48.07%,[12] but fewer studies suggested still good results for dietary services 99.2%[10] and 80.2%.[7] The satisfaction level depends on the type of food, method of serving—hot, warm, or cold, taste of food, and timing of serving. The important consideration is given to the hygienic conditions maintained during food preparation and the type of diet that is served but not the taste and temperature. But still if the patients are not satisfied by the service, some form of improvement in terms of change in policies and practices is required. Dietary counseling for each and every patient is required to avoid hospital-induced malnutrition in surgical wards.[13]

Most of the patients were satisfied with the services provided by the various diagnostic centers. The less number of physiotherapies indicates that very few patients are referred to that facility. The main finding related to dissatisfaction was the waiting period in radiology and delay in attending calls by other departmental physicians. The satisfaction levels are comparable with other studies for ECG 68.8%, radiology 76.0% and biochemical/pathology 67.3%[3] as against 52.85%, 44.28%, and 69.04%, respectively. The reasons for dissatisfaction about the diagnostic services are mainly overcrowding, waiting period and test facility, behavior of laboratory technicians, and maintaining privacy and confidentiality. These facilities can be made satisfactory if waiting period is minimized, either by proper prior appointments system or by displaying token system, appropriate time management is done by consultants, and maintaining and following timings of reporting and establishment of single dispatch section for all reports are carried out.

Accommodation or physical facilities are more important for relatives or people living with the patient. Conditions of toilets and ease of access to the facility were the major issues related to dissatisfaction in physical facility. Satisfaction for drinking water facility was more in our study than 45.7[14] but less than 83.02%.[12] The patients were not satisfied with the toilet facility and this fact is supported in many studies.[15,16] Other studies also quoted the dissatisfaction regarding the cleanliness, toilet facilities, and drinking water facility.[15,16] These facilities can be improved if the maintenance and housekeeping services are monitored on regular and daily basis. Due attention is paid to the complaints of the patients and immediate corrective measures are taken.

Modern hospital buildings are designed to minimize the effort of medical personnel and the possibility of contamination while maximizing the efficiency of the whole system. Travel time for personnel within the hospital and the transportation of patients between units is facilitated and minimized. The building should also be built to accommodate heavy departments such as radiology and operating rooms while space for special wiring, plumbing, and waste disposal must be allowed for in the design. However, the reality is that many hospitals, even those considered 'modern', are the product of continual and often badly managed growth over decades or even centuries, with utilitarian new sections added on as needs and finances dictate.

Some newer hospitals now try to re-establish design that takes the patient's psychological needs into account, such as providing more fresh air, better views, and more pleasant color schemes. These ideas harkened back to the late eighteenth century, when the concept of providing fresh air and access to the 'healing powers of nature' were first employed by hospital architects in improving their buildings. Hospital infrastructure includes the hospital building further subdivided into its construction, appearance, space, and other parameters of physical facility. The research of *British Medical Association* is showing that good hospital design can reduce patients' recovery time. Exposure to daylight is effective in reducing depression. Single sex accommodation help ensure that patients are treated in privacy and with dignity. Exposure to nature and hospital gardens is also important—looking out windows improves patients' moods and reduces blood pressure and stress level. Eliminating long corridors can reduce nurses' fatigue and stress.

Another ongoing major development is the change from a ward-based system (where patients are accommodated in communal rooms, separated by movable partitions) to one in which they are accommodated in individual rooms. The ward-based system has been described as very efficient, especially for the medical staff, but is considered to be more stressful for patients and detrimental to their privacy. A major constraint on providing all patients with their own rooms is, however, found in the higher cost of building and operating such a hospital; this causes some hospitals to charge for private rooms.[17]

In this study, patients were not fully satisfied with hospital infrastructure and infrastructure of wards as it is an old construction but main parameter was cleanliness for which most of the patients (59.04%) were satisfied. The main reasons for satisfaction were the situation of wards, which are around a beautiful garden where ample space is provided for sitting and chatting with a centrally situated department of surgery.

The overall level of satisfaction for the visit to the hospital was taken on five-point Likert scale. The overall level of satisfaction (75.24%) was good. According to various studies, the level of satisfaction was 75.08%[12], 92%[5], 93.3%[18], 54.1%[19], 50%[20], and 36.7% in a study at Najah National University, Nablus, Palestine in 2008 by Al Sharif BFT.[5]

Overall level satisfaction of the patients regarding hospital services was found to be good (75.08%) by a study done by Kulkarni et al.[12], which included 907 respondents, at Nagpur, a nearby region of this present study. Therefore, findings of this study are more important to compare with those of this study because of similar geographical region and also the similar patient drainage area.

In a study conducted in Srinagar by Qureshi et al.[18] reported that only 6.7% patients were poorly satisfied with hospital services. Kumari et al.[14] found unsatisfactory availability of drinking water (45.7%) and toilet facilities (37.4%) as well as the cleanliness of the toilets (27.3%) in a study conducted in Lucknow. In a randomized study conducted by Joshi et al.[5] on 100 patients by using pre-structured questionnaires at the end of their O.P.D. visits for 5 days at Civil Hospital, Surendranagar, the overall opinion about the efficiency of hospital was satisfactory in 92% of patients. Sixty eight percent respondents said that the time of coming to hospital and consulted by doctor was too long. Although 75% patients said that the time devoted by doctor was only between 0 and 5 min., the communication and the explanation of disease by doctors were found satisfactory (80% and 91%, respectively). The need of investigations was necessary as per 90% of the patients. Time required to locate and get medicines from pharmacy was satisfactory in almost all patients. The study revealed that the degree of satisfaction was mild to moderate with respect to waiting time and availability of specialist in the hospital, which need to be further explored and corrected. In other studies conducted outside the country, Abdosh[19] reported that 54.1% patients were satisfied with services in the hospital in Ethiopia.

The overall satisfaction is the predictor of efficient services provided to the patients. It is the mirror image of the services—the more you clean, the more it becomes transparent. The factors that satisfied the patients in our study were cleanliness in the wards, associated facilities for physical rest, drinking water, and, the most important, the physician services and responsiveness to their problems and the uncomplicated administrative procedures.

Conclusion

To conclude, assessments of patient satisfaction and evaluation of the factors for dissatisfaction are relevant to strengthen the bonding between health-care facility and the faith of a community. The cost effectiveness of the services provided would also go a long way to maintain the bond between the doctors and the patient for the achievement of the optimal level of health of the people.

References

1. McKinley RK, Roberts C. Patient's satisfaction with out of hours primary medical care. Qual Health Care 2001;10:23–8.
2. World Health Organization. The World Health Report 2000. Health Systems: Improving Performance. Geneva 2000.
3. Rao KD, Peters DH, Bandeen-Roche K. Towards patient-centered health services in India: a scale to measure patient perceptions of quality. Int J Qual Health Care 2006;18:414–21.
4. Singh S, Kaur P, Rochwani R. Patient satisfaction levels in a tertiary care medical college hospital in Punjab, North India. Int J Res Dev Health 2013;1(4):172–82.
5. Joshi K, 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 Pub Health 2013:2(3):659–63
6. Agrawal D. Health sector reforms: relevance in India. Indian J Community Med 2006;31:220–22.
7. Verma A, Sarma RK. Evaluation of the exit proformas in use at special wards of public sector tertiary care center. J Acad Hosp Adm 2000;12(1):1–6

8. Sreenivas T, Prasad G. Patient satisfaction: a comparative study. J Acad Hosp Adm 2003;15(2):7–12.
9. Kumar R. Medical documentation: patient satisfaction document. J Acad Hosp Adm 2003;15(1):1–6.
10. Bhattacharya A, Menon, P, Koushal V, Rao KLN. Study of patient satisfaction in a Tertiary referral hospital. J Acad Hosp Adm 2003;15(1):1–6.
11. Singh B, Sarma RK, Sharma DK, Singh V, Aryaand SD. Assessment of hospital services by consumers: a study from NDDTC, AIIMS, Ghaziabad. Medico Legal Update 2005; 5(1):1–3.
12. Kulkarni MV, Dasgupta S, Deoke AR, Nayse, Study of satisfaction of patients admitted in a tertiary care hospital in Nagpur. Nat J Com Med 2011;2:37–9.
13. Mahakalkar CC, Modi S, Yeola M, Kaple MN, Patwardhan MA, Laddha P. Malnutrition in hospitalised patients: a real concern in surgical outcomes. Int J Res Med Sci 2014;2(1):250–7.
14. Kumari R, Idris MZ, Bhushan V, Khanna A, Agarwal M, Singh SK. Study on patient satisfaction in the government allopathic health facilities of Lucknow district. India Indian J Community Med 2009;34(1):35–42.
15. Mahapatra P, Srilatha S. Patient satisfaction surveys in public hospitals in India. J Acad Hosp Adm 2001;13(2):7–12
16. Peerasak L, Surasak B, Pattanawadi U. Patient satisfaction on health service at the family medicine learning centers. Chiang Mai Med J 2004;43:67–76
17. Rosenberg J. Health administrators go shopping for new hospital designs. Nat Rev Med 2004;1(21).
18. Qureshi W, Khan N, Naik A. A case study on patient satisfaction in SMHS hospital, Srinagar. Jammu Kashmir Practitioner 2005;12(3):154–5.
19. Abdosh B. The quality of hospital services in eastern Ethiopia: patient's perspective. *Ethiopian J Health Dev* 2006;20(3): 199–200.
20. Jawahar SK. A study on out patient satisfaction at a super specialty hospital in India. Internet J Med Update 2007; 2(2):13–7.

How to cite this article: Mahakalkar C, Kaple M, Jain N, Jaipuria P, Wagh D, Laddha P. Measuring patient satisfaction: a need of the day for tertiary care services. Int J Med Sci Public Health 2015;4:658-663

Source of Support: Nil, **Conflict of Interest:** None declared.