

Original article:

Study of patient satisfaction in joint replacement center of a multi-speciality hospital

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Abstract:

Introduction: the task of the hospital is to restore health and not merely to cure disease. With the passage of time, the expectations of the clients are rising but the attitude of the staff has not changed commensurate to the changing environment. This results in their patient dissatisfaction and conflicts. The patients are the single largest category in a hospital and therefore deserve special attention. Therefore, the satisfaction of patients is one of the most important criteria for assessing the quality of care in a hospital. The aim and objectives of this study was to assess patient satisfaction in Joint Replacement Centre (JRC) of a tertiary care hospital.

Material and Methods: the team interacted with 125 patients and 75 staff closely comprising of a detailed questionnaire having open as well as close ended questions and one to one sessions. The results were tabulated and quantitative analysis was done.

Results : Although 100 % satisfaction was found regarding technical competence of doctors and paramedical staff, dietary services and housekeeping services warranted improvement as per patients. Information pertaining to biomedical waste disposal and antibiotic policy of the hospital amongst paramedical staff needed attention. Recreational facilities for the patients also required upliftment. Suitable remedial measures were instituted to address these issues.

Conclusion: Although hospital was providing quality medical and rehabilitation care to JRC patients, certain areas required improvement like dietary and housekeeping services.

Keywords : patient satisfaction, competence, diet, housekeeping.

INTRODUCTION

All major advances in medical and hospital procedures have been in the area of technological advances in equipment and application of scientific medicine¹. The hospitals have given relatively little thought to the deeper psychological demands of an average patient, either upon entering, post operatively or in convalescence^{1,2}. The fact is that the patients almost never react to statistical aggregates generated in the hospital^{3,4}. Once in a hospital he seeks

satisfaction for his very special personal and private emotional needs. Even before he enters the hospital he seeks emotional assurance from all sides, when he makes discrete enquiries regarding the reputation of the hospital⁵.

‘Quality of inpatient care’ means the degree of excellence of medical attention offered to patients by a hospital. This quality will depend upon the efficiency of the hospital which in turn is influenced by many factors. In order to ensure the quality of

anything, standards should be available against which one produce can be compared with another^{3,5}. The practice of medicine today has become very complex and multidimensional, it is provided by numerous categories of health personnel utilising a variety of precision equipment and is spread over a large physical area of activity⁶. The administrator is responsible for making this whole organisation of a wide spectrum of men and material into a functionally effective machine. The product of this machine is the 'Service' or the 'Medical care' provided by a hospital^{4,7}. This product being intangible and dependent on so many people individually and collectively, does not lend itself to easily definable standards or to simple units of measurement⁸. Any index for method of measuring quality to be effective should be sensitive, specific, practical and based on current concepts of good medical practice. Unfortunately no such rough and ready indices are yet available which can be universally applied to directly measure the quality of hospital care^{1,3,4,7}.

The evaluation of such care is therefore done indirectly by first examining the quality and adequacy of the factors and facilities which contribute towards better patient care and secondly, by analyzing the medical care process of individual patients from the medical records which is called medical audit. It brings out the professional lapses and lessons for future medical care^{8,9}.

A number of studies carried out by hospital management experts in different hospitals reveal that the patients and their attendants expects many things from a hospital like Prompt attention, concerned Provider, quality of clinical care, assurance, reliability and continuity of services, amenities like waiting area, cleanliness, toilet, water, food, etc and reasonable and affordable cost^{2,6,9}.

Patient dissatisfaction results from prolonged and unexplained waiting time, inadequate signage, suboptimal amenities like food, linen, cleanliness in wards, dept, toilets, house-keeping and delays during discharges and behavior and attitude of paraclinical staff^{4,5}.

There are a number of methods for assessing the level of patient satisfaction.

These include complaint tracking, exit interviews, mail surveys, telephone surveys and focus group discussions. Each method has advantages and disadvantages. Therefore it is suggested that more than one approach be used for assessing patient satisfaction^{7,9}.

Thus, the aims and objectives of this study were to assess patient satisfaction in joint replacement centre (JRC) of this hospital using a detailed questionnaire (appx 'A') and close interaction with patient and hospital staff encompassing the above mentioned points.

MATERIAL AND METHODS

This tertiary care hospital has orthopedic center since 1958 and has 175 beds. The Average daily OPD Attendance is 360 to 400, average daily Hospital Admission 40 to 50 and the Average Hospital Bed Occupancy 60-65%. The hospital has a dedicated technical staff of approx 600 people including medical officers, nursing officers and other staff. The hospital excels not only in field of number of joint replacements done but also in the after care given, early mobility and rehabilitation of these patients. The JRC has 11 beds including one post operative room which is equipped with all life saving emergency instruments. The other beds are placed within the ward which is arranged as per the intensive care unit setup. The beds are separated with transparent separations and curtains are used for the

privacy of patients. The patient's beds, toilets and other modalities are placed as per the patient's needs. Pantry, television and other facilities are also there. Complete ICU protocol is followed in order to prevent cross-infection and maintain sterility. Staff is allowed in ward with due protective covers. Around the clock trained orthopedic professionals and staff are working here for the best patient care. This prospective study was carried out from Feb 2017 to May 2017.

Data Collection Technique

The team visited the JRC continuously for one month and gradually developed good rapport with staff and patients. Ward routine, procedures, pre-operative and post operative care, measures to maintain sterility, avoiding hospital acquired infections and take special care of what to feed and what not to give to the post-op patients were studied. A special care was made to study the patient's anxiety for surgery and the stress level in the center for the working staff. The data was collected through personal interviews.

Data Collection Tools

A questionnaire having both closed ended and open-ended questions was designed to conduct the interview. The questionnaire was framed covering all the aspects of orthopedic care, especially joint replacement, in the hospital from the day of registration till the day of discharge. Total 200 people were interviewed – 125 patients and 75 staff. Before administering the questionnaire to them, it was validated by the hospital administration experts.

Analysis

The data collected through the questionnaires was compiled on a data sheet. Average was calculated for quantitative data.

Limitations of the Study

No research study is successfully consummated without its share of difficulties and limitations. Thus, limitations pertaining to this research during the course of study were –

- (a) All patients were completely different in their demographic profile hence they could not be taken as representatives of any particular group.
- (b) It was difficult to gather all the respondents at the same point of time.
- (c) Due to the varied profile of the patients their expectations and satisfying criteria were vastly different. So setting up of common questionnaire was difficult.
- (d) The respondents had to be really motivated to give genuine and realistic responses.
- (e) The ratio of in-patients and out-patients in the hospital was highly variable.
- (f) A bias to some extent to the questionnaire was expected as the patient beds were close to each other and they could have discussed the points. To avoid this, answers were collected immediately after asking questions at bed-side of the patients.

RESULTS

Staff Related Questions

The results obtained on compilation of the questionnaires asked to the staff of the hospital are summarized in Table 1. In staff adequacy, 96 % replied as sufficient and 4 % said insufficient. In personal protective equipment, 88 % said adequate whereas 12 % said that it is inadequate.

Patient related questions

Waiting Time and behavior of Doctors and Nursing Officers are as per fig 1A and fig 1B respectively. Technical and conduct of doctors and nurses as

perceived by patients are as per fig 2A and 2B respectively. Patients opinion pertaining to Behavior and Patient Care by paramedical staff like Lab Assistant, Pharmacist and X-Ray Assistant and Amenities and Quality of Facilities at JRC which included cleanliness, waiting area, seating arrangements, toilets, information system and health

education at JRC are as per fig 3A and 3B respectively. Overall rating of the department / Hospital was considered excellent by 10%, Good by 80% and satisfactory by 10%. On asking whether patients will recommend this department / hospital to any other client, 100 % replied as yes.

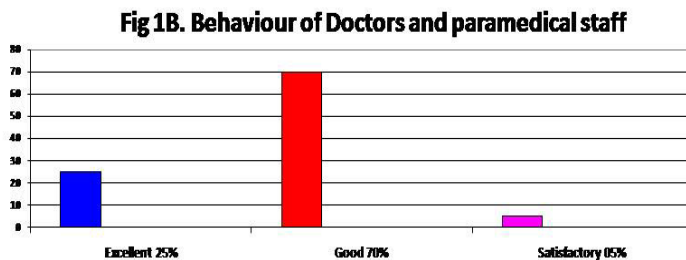
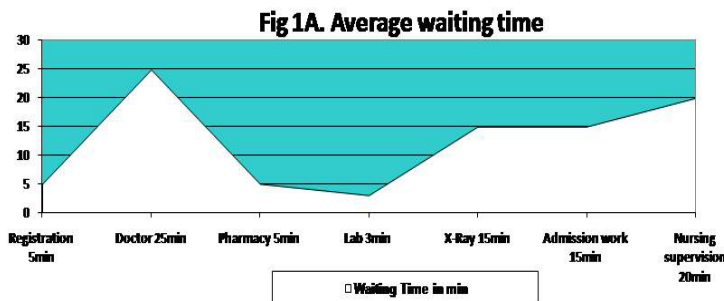


Fig 2A : Technical competence of doctors

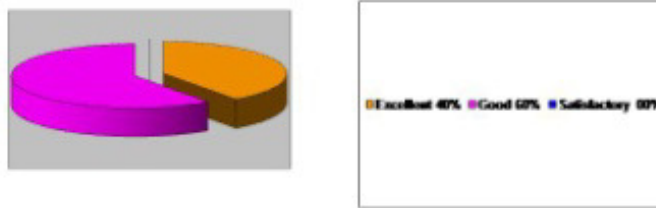


Fig 2B : Technical competence of nurses



Fig 3A. Behaviour by paramedical staff

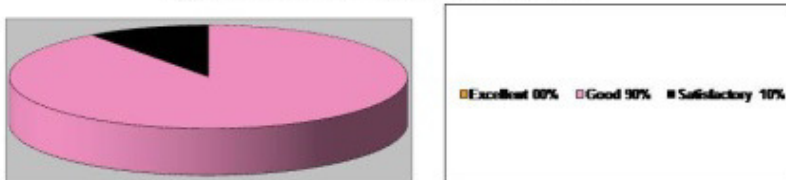


Fig 3B. Amenities at JRC

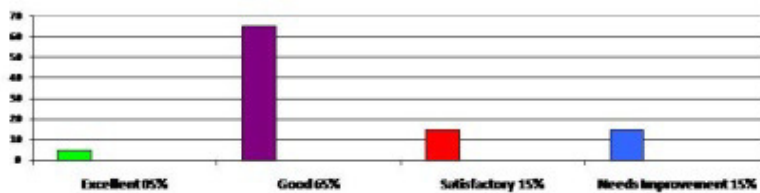


TABLE 1

SNo	POINT	EXCELLENT (%)	GOOD (%)	SATISFACTORY (%)	CAN BE IMPROVED (%)
1.	Set up and location of JRC	6	48	22	24
2	Knowledge of biomedical waste disposal system	7	63	18	12
3	Dietary services	9	41	23	27
4	House Keeping services	7	33	31	29
5	Knowledge of hospital antibiotic policy	10	41	31	18
6.	Knowledge of pre-operative preparation and patient care	15	55	20	10
7	Knowledge of post-operative care	13	57	23	07
8	Knowledge of post-operative physiotherapy and related exercises	14	61	20	05

Appx 'A'

Questionnaire – A Study On Patient Satisfaction In Joint Replacement Centre Of A Multi-Speciality Hospital

1. Questionnaire – Staff Related Questions

Scale for answers (1 to 4) –

- 1 - Needs Improvement
- 2 - Satisfactory
- 3 - Good
- 4 - Excellent

1. Do you think that the infrastructure, set up and location of joint replacement center (JRC) with regard to patient care is upto mark?

** Answer as per the scale

2. Is the staff sufficient/ adequate at JRC?

- (a) Yes/ Sufficient
- (b) No/ Insufficient

3. Is the personal protective equipment adequate for satisfactory patient care?

- (a) Yes/ Adequate
- (b) No/ Inadequate

4. What is your grading with regard to knowledge of staff regarding biomedical-waste management?
** Answer as per the scale
5. How would you grade the facilities & dietary services available to patients admitted at JRC of your hospital?
** Answer as per the scale
6. How would you grade the House keeping services & related facilities available to patients admitted at JRC of your hospital?
** Answer as per the scale
7. How would you grade the knowledge of the working staff regarding hospital antibiotic policy given to patients admitted at JRC/ hospital?
** Answer as per the scale
8. What is your grading with regard to knowledge of the working staff about pre-operative preparation and care of patients admitted at JRC?
** Answer as per the scale
9. What is your grading with regard to knowledge of the working staff about post-operative care of patients admitted at JRC?
** Answer as per the scale
1. What is your grading with regard to knowledge of the working staff about post-operative physiotherapy and related exercises of patients admitted at JRC?
** Answer as per the scale

2. Questionnaire – Patient Related Questions

Name

Age

Address

Diagnosis

Ward No

Bed No

1. Please mention about the approximate waiting time (in minutes) you faced at various service delivery points and comment whether the same was comfortable or not?

Service delivery point	How much was the waiting (in minutes)	You consider this much waiting to be comfortable? Yes/ No
Registration desk		
Doctors chamber		
Pharmacy		
Laboratory (for getting test done)		
Lab for getting the reports		
X-ray dept for the test		
US/X-ray for getting the reports		
Admission desk		
Nurse while providing various services		

2. How would you grade the behavior of the doctors and nursing staff attending on you at JRC of the hospital?

** Answer as per the scale

3. How would you grade the technical competence of the doctors attending on you at JRC of the hospital?

** Answer as per the scale

4. How would you grade the technical competence of the nursing officers attending on you at JRC of the hospital?

** Answer as per the scale

5. How would you grade the behavior and patient care given by laboratory assistant, pharmacist and the x-ray assistant of the hospital?

** Answer as per the scale

6. How would you grade the amenities and quality of facilities available at JRC of the hospital?

** Answer as per the scale

7. What is your overall rating of the department of JRC and the hospital?

** Answer as per the scale

8. Would you recommend this department/ hospital to any other client or patient?

(a) Yes

(b) No

9. Feedbacks/ Suggestions & recommendations for improvement (if any)

DISCUSSION

A very high level of satisfaction was observed by both the working staff (Doctors, Nursing staff and technicians) and the patients towards most of the services of the hospital. Same was found in many studies^{1,2,4,5,8}. From the questionnaire given to the hospital staff it was observed that almost 76% persons were satisfied with the location of JRC. The rest of them were unhappy with the distance of JRC from the main entry gate. Technically speaking it is rightly located next to the operation theatre. The staff was found to be adequate for most of the JRC related services (96%). 12% people found inadequate personal protective equipment, however the same was rectified with increased demands, proper guidance and judicious use of available material. 88% staff was satisfactorily informed on Biomedical-waste management and the rest 12% only required a refresher lecture with regular update and follow ups. 30% people felt that the dietary services and house-keeping services needed improvement. When explored further, they wanted change in menu and commented that the quality of chapatti was poor. A variety of diets can be provided depending on the menu and health problems of patients. Dietary and inadequate housekeeping has been found to be the most common cause for patient dissatisfaction¹⁻³. The staff desired daily change in laundry which as on date was changed on patient turnover. 85% staff was well

informed on hospital antibiotic policy and the rest 15% only knew the policy but were unable to interpret the technical reason behind it. This led to irregular and incomplete implementation of doctor's advice on patient treatment. The knowledge of pre-operative preparation, pre-op care, post-operative care, physiotherapy and related exercises was generally satisfactory to the extent of 95%.

Patient related questions revealed that the patients were generally satisfied with the waiting period at various hospital points. However, the maximum waiting was for doctor's consultation, nursing supervision and admission paperwork. Waiting time was also found to long by Prassanna et al¹⁰. In spite of above waiting time, 95% of the patients were happy with the behavior of doctors and nursing staff. There was almost 100% satisfaction as regards doctor's and nursing officer's technical competence. 90% of interviewed patients were satisfied with behavior and patient care offered by the lab assistant, pharmacist and the x-ray assistant. The remaining 10% were mentioning about incomplete information on preparation for the tests or inability of the staff to explain the test results or reason for repeating few blood investigations and rarely non-availability of few medicines. The above points were noted and we tried to rectify them, however, since only 10% patients had this feeling it was more of an individual observation rather than departmental lacunae. 85 %

patients were satisfied with amenities and quality of services like cleanliness, waiting area, seating arrangements, toilets, information system and health education at JRC. 15% patients felt there was a scope for improvement in dietary services, availability of drinking water and better recreational facilities. Almost 100% patients gave a positive rating to the department and hospital and also acknowledged recommending the JRC and hospital to other needy patients.

Though a very high level of satisfaction was observed by both the working staff (Doctors, Nursing staff and technicians) and the patients towards most of the services of the hospital, there was still some dissatisfaction towards dietary services, availability of water in the wards and recreation facilities.

Based on the study finding it was concluded that improvements are required in the dietary services, house-keeping services, amenities in JRC, knowledge of antibiotic policy and biomedical-waste

management. The matter was discussed with the hospital management. Regular classes, practical training and updates with CME were planned to upgrade knowledge of antibiotic policy, biomedical-waste management and keep hospital acquired infection rate at minimum. The dietary committee was empowered to prepare weekly menu with some variety in it. Two new televisions were also installed in the ward for better recreational facilities.

CONCLUSION

Although galloping advances are seen in the area of technological advances and modern patient care, patients view points are not taken into account generally as there are no laid down guidelines to assess it. However, as our studies have shown that simple steps taken to enquire about patients need and remedial cost effective measures taken thereafter can go a long way in not only improving patient satisfaction level but also to enhance the reputation of the hospital.

REFERENCES

1. Mishra PH, Mishra T. Study of Patient Satisfaction at a Super Specialty
2. Tertiary Care Hospital. Indian Journal of Clinical Practice 2014; 25:624-631.
3. Lyngkhoi R and Brindha G. A Study on Patient Satisfaction of Outpatient Department. Indian Journal of Science and Technology.2015;8(32): DOI: 10.17485/ijst/2015/v8i32/87577.
4. Acharya JP, Acharya I. A study on compliance and behavioral responses of patients in an outpatient clinic. Indian J Community Med 2003;28(1):19-25.
5. Srinivas T, Prasad G. Patient Satisfaction-A Comparative Study. Journal of the Academy of Hospital Administration. 2003; 15(2).
6. Sharma A, Kasar PK, Sharma R. Patient satisfaction about hospital services:A study from the outpatient department of Tertiary care hospital, Jabalpur, Madhya Pradesh, india. National Journal of Community Medicine 2014; 5:199-203.
7. Jadhav SB, Lokhande GS, Naik JD, Rajderkar SS, Suryavanshi SP, Bhoje KR. Measuring patient satisfaction towards quality of outpatient care: a part of Health Systems Research. International Journal of Recent Trends in Science And Technology, 2011, 1,(3),96-103.

8. Soleimanpour H, Gholipouri C, Salarilak S, Raoufi P, Vahidi RG, Rouhi AJ, et al. Emergency department patient satisfaction survey in Imam Reza Hospital, Tabriz, Iran. *Int J Emerg Med* 2011;4:2.
9. Kulkarni MV, Dasgupta S, Deoke AR, Nayse S. Study of satisfaction of patients admitted in a tertiary care hospital in Nagpur. *National Journal of Community Medicine* 2011;2(1),37-39.
10. Brennan TA. Incidence of adverse events and negligence in hospitalized patients. Results from the Harvard medical practice society *N Engl J M* 1991;324:370.
11. Prasanna KS, Bashith MA, Sucharitha S. Consumer satisfaction about hospital services: A study from the outpatient department of a private medical college hospital at Mangalore. *Indian J Community Med* 2009;34(2):156–9.