

## Patient Satisfaction Scale : Development Of A Comprehensive Tool For Quality And Efficacy Of Services Provided.

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### Abstract:

**Introduction :** Patient satisfaction is a tool to assess the quality and efficacy of services provided by a health care delivery system. A comprehensive tool used for measuring patient satisfaction can highlight the areas to improve these services. Thus a study was planned to develop a tool for measuring patient satisfaction for indoor patient in a rural teaching hospital. A cross sectional study was conducted in a teaching hospital of Maharashtra.

**Material and Methods:** The study population consisted of patients admitted for more than two days in the hospital. Data was collected using a pre structured questionnaire. The questionnaire consisted of 40 questions covering 10 various aspects of patient care. Responses were recorded using a 5 point scale from highly unsatisfied to highly satisfied.

**Results:** Total satisfaction score ranged between 137 and 189 out of 200, with average score  $173.9 \pm 11.6$ . Younger patients, patients who stayed for longer duration and those who were admitted to surgical wards were more satisfied as compared to others.

**Conclusion:** Gender of the patient was not associated with level of satisfaction.

**Keywords:** Health care delivery, Patient Gender

### Introduction:

Hospitals have evolved from being an isolated sanatorium to a place which provides patient centered facilities. Commercialization, competition and improvement in the facilities have been responsible for increased expectation from a medical organization. There is now broad agreement that health services should be comprehensive, accessible and acceptable, provide scope for community participation and available at a cost the community and country can afford.[1]

However, despite recent developments in the Indian healthcare sector, there is still great concern about the quality of some healthcare services in the country. This leads to constant monitoring of quality of services and facilities provided to the patients. This need is further aggravated as India is now recognized as a health destination attracting medical tourism.

Patient satisfaction is one of the established yardsticks to measure success of the services being provided in the health facilities [2]. Probably the most important reason to conduct patient satisfaction surveys is that they provide the ability to identify and resolve potential problems before they become serious. They can also be used to assess and measure specific initiatives or changes in service delivery. Most importantly, they can increase patient loyalty by demonstrating you care about their perceptions and are looking for ways to improve. [3]

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In modern times when expectation from healthcare institutions are increasing and level of satisfaction is decreasing, leading to increased number of legal suits and physical manhandling of medical professionals, it is very important to know the variables affecting patient satisfaction.

Very few studies have been devoted to the satisfaction of Indian patients. The effect of satisfaction is important to the private hospital marketing manager because it provides him with the opportunity to take certain actions to improve. With the above background the present study was conducted

1. To develop a tool for measuring patient satisfaction and
2. To find level of patient satisfaction in patients admitted in a teaching hospital in Maharashtra.

**Materials and methods**

A cross sectional study was conducted in a teaching hospital of Maharashtra. The study population consisted of patients admitted for more than two days in the hospital. Study sample consisted of patients who willingly agreed to participate in the study. Care was taken to include patients from all the wards. Data was collected using a pre structured questionnaire. The questionnaire consisted of 40 questions covering 10 various aspects of patient care such as general information, improvement in health, infrastructure, availability of services, services providers, time spent, communication, billing, cleanliness and confidentiality. The answers were recorded using a 5 point scale from 1 to 5 for highly unsatisfied to highly satisfied. Thus maximum score that can be obtained was 200 and minimum was 40.

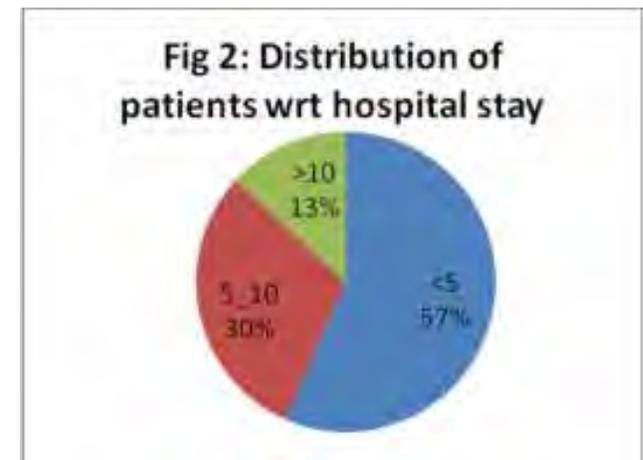
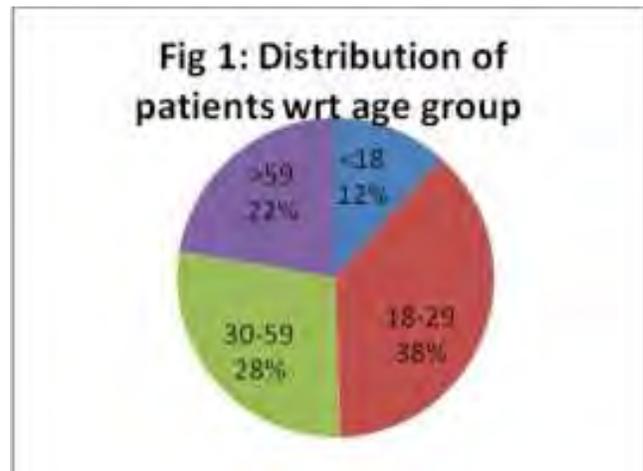
Total scores of patient satisfaction was divided into 6 categories as follows-

Scores (out of 200)	Category
<100 (50%)	Highly unsatisfied
100- 120 (50%- 60%)	Unsatisfied
120- 150( 60%- 75%)	Neutral
150- 160 (75%- 80%)	Less Satisfied
160- 180 (80%- 90%)	Moderately satisfied
>180(90%)	Highly satisfied

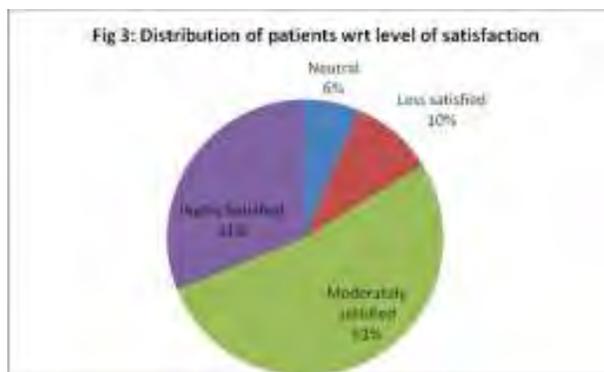
**Results:**

The study consisted of 103 patients admitted in the hospital of a medical college. There were 39 males and 64 females who were admitted to various wards such as medicine, orthopaedics, OBGY etc. The age ranged from yr to 99 yrs with average age s 38.3± 2.6yrs. Fig 1 shows distribution of patients with respect to age group.

Minimum Hospital stay was 5 days while one patient each stayed for 40, 45 and 50 days, the average hospital stay was 7.3 days. Fig 2 shows distribution of patients with respect to stay in hospital.



Patient satisfaction survey consisted of pre structured questionnaire which covered various services given by hospital. Table1 shows aspect covered and number of questions covering them. Total satisfaction score ranged between 137 and 189 with average score 173.9 ± 11.6. Distribution of patients with respect to level of satisfaction is shown in Fig 3.



It was observed that most of the patients were satisfied with the hospital. Levels of satisfaction was further analysed with age and sex of patient and hospital stay. It was observed that average total satisfaction scores decreased with increase in age group, however the difference was not statistically significant (p=0.27)

Average scores for each component of patient satisfaction are depicted in table 1. It can be seen that average scores were more than 90% for almost all components of patient satisfaction.

**Table 1: Scores for component of patient satisfaction**

Component of patient satisfaction	No. Of questions	Maximum score	Average scor( Mean+SD)
General Information	6	30	27.4 ± 2.6
Infrastructure, availability	9	45	37.8 ± 6.75
Improvement	1	05	4.6 ± 0.6
Ease to access	5	25	18.4 ± 2.1
Waiting time	4	20	18.1 ± 1.9
Communication	4	20	18.5 ± 1.7
Assistance	4	20	18.0 ± 1.7
Billing	3	15	12.4 ± 1.8
Facilities	3	15	13.6 ± 1.5
Confidentiality	1	05	4.8 ± 0.4
Total	40	200	173.9± 11.6

Further analysis was done to study association of scores of each component with respect to age group, gender and stay in hospital. It was observed that scores for each component increased with stay in hospital, however the difference was not statistically significant. This indicates that those patients who are admitted for a longer time are more satisfied.

On the other hand average scores of all the components decreased with increase in age. This implies that younger patients are more satisfied as compared to older ones. The difference was statistically significant with respect to ease to access (p=0.033), indicating that younger patients find it easier to access the facilities provided by the hospital. Further analysis showed that mean scores for facilities available was significantly less in the age group 18-20 yrs (p<0.042) .

Patients were divided into two categories with respect to type of ward as surgical and non surgical. Significant difference was noted in scores of basic infrastructure and

billing with patients admitted to surgical wards being more satisfied as compared to those admitted in non surgical wards. (p<0.019 and 0.001) respectively

**Discussion**

The quality of service, both technical and functional, is a key ingredient in the success of service organizations [4]. With competitive pressures and the increasing necessity to deliver patient satisfaction, quality of service and effectiveness of medical treatment have become vitally important.[5] In a health care system where patient is the main beneficiary of the system, patient satisfaction can be used as a tool to assess quality of services provided.

Satisfaction about health care system depends upon clinical as well as non clinical factors related to patient care. Thus it is difficult to measure the satisfaction of the health systems [6].

Donabedin Avedis has described the key properties of healthcare that constitute quality as: Effectiveness,

efficiency, optimality, acceptability, legitimacy and equity. [7] While Effectiveness and Efficiency measure the improvement in status of health of the patient, Optimality is related to financial aspect from patients point of view. Acceptability- depends on following factors- The patient-practitioner relationship, Amenities, Patient preference as to the effect of care and Patient preference as to the cost of care. Present study has attempted to view patient satisfaction in this regard.

A study on inpatients of a hospital in Andhra Pradesh points out that better staff and physician relations, interpersonal skills, infrastructure, and availability of drugs have the largest effect in improving patient satisfaction. [8] Mufti Samina et al., 2008 have observed that nursing care' is very important aspect on which patient satisfaction depends as nurses are involved in almost every aspect of client's care in hospital.[9] Low level of patient's satisfaction towards behaviour of ward boys, sweepers and ayas was noted as the major concern in a study from Assam also. [10]

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.[11]

Results of present study confirm this observation as patient who had previous experience were significantly satisfied with the general experience of the hospital. Thus as corollary to this it can be said that a satisfied patient is more likely to choose the same health care facility in case of next requirement.

High percentage of patients who had high satisfaction as observed in present study is comparable to that in rural Haryana. However the same study also reported that less than 20% patients were dissatisfied with organization of care and cost of care respectively. Patients and their relatives complained about cost of drugs, delayed reports and long appointments for ultrasound and other radiological investigations.[12] Though few participants of present study were not satisfied with delay in billing, none complained about any other delay.

Study from comparative population from India reports statistically significant relation was seen between behaviour and education of doctors and class III & IV staffs with

satisfaction level, gender & cleanliness.[13] No such association was observed in present study.

With the advancement in technology and stiff competition, hospitals are always striving for improvement in their services. Patient expectations are constantly changing, so what satisfies a patient at one point in time may not satisfy him at some later date.[14] Hence it is essential to assess the satisfaction of patients in order to assure the quality of services provided by a health care delivery system[15]

### **Conclusion:**

A scale which covers all aspects of patient care is useful tool for measuring patient satisfaction. As it quantifies the responses, it not only measures overall satisfaction but also helps in identifying areas which needs attention to improve patient satisfaction. Age of the patient and past experience along with type of ward where patient is admitted are the factors which affect the level of patient satisfaction. As against this gender of the patient and duration of hospital stay do not affect satisfaction of patient.

### **Limitations:**

As hospital records are not openly available, the tool could not be validated on any other data set from different hospital.

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