

Role of Different Factors Affecting Satisfaction of Patients Treated in A Tertiary Care Hospital of North India.

Received: 18 August 2022, **Revised:** 15 September 2022, **Accepted:** 23 October 2022

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Abstract

BACKGROUND: Patient overall satisfaction is an important tool for measuring whether the available health care supply meets patient's need and expectations depending upon the age, gender, background, treatment given to patient and various other factors. The aim of this study is to analyze the effect of different parameters on patient satisfaction in tertiary care hospital.

MATERIAL & METHODS: This is a prospective observational study on 200 patients conducted in the department of surgery at Santosh Medical College and Hospital, Ghaziabad from March 2019 to March 2020 comparing and analyzing the various factors and parameters using a questionnaire based assessment of patient satisfaction about the health care services provided by the hospital.

RESULTS : Mean overall satisfaction score was significantly better in patients < 40 years and those who received conservative management. There was no significant difference in patient's overall satisfaction score on the basis of gender and background.

CONCLUSION: Consumer satisfaction is a multidimensional concept. Timely surveys and feedback system should be utilized to identify the needs and scope of improvement in health care services.

1. Introduction

Patient satisfaction is an important tool for measuring whether the available health care supply meets patients' needs and expectations¹.

Inpatient satisfaction is influenced by multiple factors, including patient factors (demographic characteristics, physical and psychological status, and expectations), health institution factors (health-staff characteristics, staff-patient interactions, health quality, treatment process, finances, medical facilities, and health organization environment including physical environment and food service), and governmental factors (social environment,

health policy, medical insurance, and welfare conditions)²⁻⁵. The aim of this study is to analyze the effect of different parameters of health care services on patient satisfaction.

2. Materials and Methods

This prospective and observational study included the cases admitted in surgery department at Santosh Medical College, Ghaziabad from Mar 2019 to Mar 2020, and data collected on basis of post visit questionnaire. A total of 200 patients were selected for the study and different parameters of satisfaction were analyzed and compared according to age, gender, residence and treatment given to the

patient (Conservative/Surgical). Each parameter was given a score of 1-5 by the patient, where each

3. Observation and Results

The number of valid cases was 200. The mean age of patients was 39.4 ± 14.5 (range, 18-95 years). The mean age of patients with urban background was 37.9 ± 13.7 and the mean age of rural patients was 42.4 ± 15.7 years. There was a significant difference in age between urban and rural patients (independent t-test, $P=0.04$). The mean age of patients receiving conservative treatment (38.7 ± 14.8 years) did not differ significantly (independent t-test, $P=0.51$) from patients receiving surgical treatment (40 ± 14.3 years).

There were 127 males and 73 females. The mean age of females (38.9 ± 15.3 years) did not differ significantly (independent t-test, $P=0.585$) from males (40.1 ± 13.1).

The mean overall satisfaction score was 8.4 ± 1 (range, 5.2-10). Table 1, shows the mean score of all study variable.

4. Discussion

As satisfaction of the patient is fundamental in providing health care service, many studies have been conducted on this issue in recent years. This study presents overall satisfaction of patients and effect of factors like doctor's experience, behavior, behavior of nurses and other staff, condition of wards and washrooms, billing and lab services etc on the patient.

In our study, 32.5% of patients are highly satisfied and 3.5% highly dissatisfied with the hospital services. The inpatient satisfaction of results of People's Republic of China's Fifth National Health Services Survey showed that overall proportion of patients who were satisfied with the hospital were 67.20% compared to 4.40% who were dissatisfied¹. In another study by Tung and Chang, number of patients satisfied with the hospital was 81% in contrast to 0.8% patients dissatisfied².

In current study, 63.5% patients are male and rest 36.5% are females. The results are consistent with the latter findings with no significant difference in satisfaction on basis of gender. 58.5% of patients

stands for '1-very poor, 2-poor, 3-average, 4-good and 5-very good'.

The mean overall satisfaction score was significantly higher (independent t-test, $P=0.037$) in patients less than 40 years of age (8.73 ± 1 versus 8.3 ± 1 , respectively).

Patients receiving conservative treatment had a significantly better (independent t-test, $P=0.02$) overall satisfaction score as compared to those undergoing surgical treatment (8.6 ± 1 versus 8.2 ± 1 , respectively).

The overall satisfaction score did not differ significantly between gender (independent t test, $P=0.6$) and background (rural versus urban) of patients (independent t test, $P=0.75$).

The experience of patients with treating doctor did not differ significantly (independent t test, $P=0.611$) between patients receiving conservative/surgical treatment, gender (independent t test, $P=0.827$) and patient's background (independent t test, $P=0.112$).

in our study have age less than 40. 67% of patients in the study are from rural and rest 33% from urban areas.

Adhikary G³, in a study, with sample size of 2207, had 61% female patients. 67% of the patients in their study were from rural background. Half of the patients were below

40 years of age. Total number of patients satisfied were 63.2%.

In a study conducted by Aiello et al⁴, male sex had higher satisfaction rates compared to female patients. Another study conducted by Cleary and Mc Neil noted that sex of patient had no association with satisfaction⁵. In this study, the mean overall satisfaction score is significantly higher in patients less than 25 years of age. Hall and Dornan⁶ and Aiello et al⁴ found in their studies that older patients tend to have higher satisfaction levels.

Doctors service attitude has a major impact on inpatient satisfaction. 75% have very good experience with the treating doctor and 75.5%

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patients stating explanation of disease and treatment by doctor as very good, thus having a major impact on overall satisfaction. Similar findings were reported by Tung and Chang who found doctor's care has major impact on patient's satisfaction. They used a similar scale of 1 to 5, ranging from 'very dissatisfied' to 'very satisfied'. The mean scores of doctor's technical skill and staff care and access were 3.9, 4.0 and 4.0 respectively. 76.3% patients in their study reported that clinic provided 'education on disease prevention and control'.

Nurses and other hospital staff have direct interaction with the patient and have a huge impact on inpatient satisfaction of the patient. In current study, 64.5% and 63% of patients were highly satisfied with behavior of nurses and other staff respectively.

Hospital environment which comprises the physical appearance and food services plays a key role in satisfaction of in patients. In current study, 37.5% were highly satisfied with condition of ward, 59.5% with the cleanliness, 38% with the food services, 19% with the washroom, contrary to 3%, 2%, 3.5% and 15.5% highly dissatisfied with these services respectively.

In a study by P H Mishra⁷, conducted in Indian spinal injury centre on 100 patients, satisfaction factors were assessed as 'excellent', 'very good', 'good', 'average' and 'poor'. 58% of patients stated room to be very good and only 1% as 'poor'. 48% of patients stated their nursing care to be very good, behavior of nurses was given good and very good by 42% patients each whereas no patient gave it poor. Half of the total patients mentioned doctor's behavior to be excellent. The diet provided to the patients was stated very good by 35% patients and 10% mentioned it to be poor. 42% stated the cleanliness of the toilets was good and 9% stated it to be poor.

In another study, by Jain and Prasad⁸, done on 400 patients, 66.4% patients were satisfied with the diet provided to the patient while rest 33.6% were dissatisfied. Satisfaction with doctor-patient relationship and nurse-patient relationship was 70%

and 78.3% respectively. 57% were dissatisfied with the other staff present in the hospital. 61.5% were satisfied with the medical treatment provided to them.

Patients admitted are usually accompanied by attendants. Some of them are present with the patient most of the times while other visit the patient for short periods. It is important for a hospital to provide them proper services as it affects the hospital reputation. This includes facilities for their stay, process of visitors meeting their patient, behavior of staff with the attendants etc. In this study, 40% of the patients are highly satisfied with the facilities for attendants and 2.5% are highly dissatisfied.

For a patient admitted in hospital, a sense of safety is of importance. For this proper security facilities must be provided by the hospital which can be in form of guards, cameras etc. In this study 55% patients are highly satisfied with the security services provided by the hospital and only 0.5% patients are highly dissatisfied.

For many patients expenditure in the hospital is a matter of concern. The results of People's Republic of China's Fifth National Health Services Survey showed that high expenditure is one of the most important reason for patient dissatisfaction. Among their respondents, 36% patients considered hospital to be expensive and 22.90% considered it inexpensive⁶. In another study conducted by Chen H and Li M, 2.05% patients were very dissatisfied with the expenditure and 33.71% were highly satisfied. In current study, 1% of patient have stated billing services to be very poor and 43.5% have stated it very good⁹.

In another study, conducted on 375 patients, opinion of patients were divided in three groups. First group were who 'strongly agree or agree', second were 'not sure' and last one were who 'disagree or strongly disagree'. 302 patients were in first group when they had to answer if they were satisfied with communication with doctor, while 298 patients gave same response for friendly nature of staff. 306 patients were satisfied with the

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treatment and 302 stated, that if need comes, they would prefer to come back to their hospital¹⁰.

Apart from all this, the pharmacy and laboratory services have a major impact on satisfaction of the patient during the course of treatment in the hospital. Problems like delay in services, providing wrong medicines or materials by the pharmacy or wrong reports by the laboratory are often encountered in a hospital setting. These need to be improved in order to improve overall health care facility. In this study, 59.5% and 37.5% patients are highly satisfied with laboratory and pharmacy services, in contrast to 0.5% and 3% highly dissatisfied respectively.

There are two different groups of patients divided equally according to mode of treatment, either managed conservatively or surgically. There is a higher satisfaction among patients managed conservatively on condition of the ward, pharmacy

services, food services and behavior of hospital staff.

The mean score of condition of ward, pharmacy services, food and behavior of hospital staff among patients treated conservatively is 4.21, 4.06, 4.0 and 4.62 compared to 3.81, 3.69, 3.64 and 4.40 respectively among patients treated surgically.

The overall satisfaction is found to be higher among the patients managed conservatively.

5. Conclusion

Consumer satisfaction is a multidimensional concept, and impact of each factor is important for overall satisfaction of a patient. Improvements should also be conducted when deemed necessary. In order to improve their performance, hospitals need to identify the factors in which it needs improvement.

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Table 1: Descriptive Statistics

| VARIABLE | Minimum | Maximum | Mean | SD |
|---------------------------------------|-------------|-------------|---------------|----------------|
| EXPERIENCE WITH DOCTOR | 2.00 | 5.00 | 4.7100 | .55447 |
| CONDITION OF WARD | 1.00 | 5.00 | 4.0100 | .96673 |
| PHARMACY | 1.00 | 5.00 | 3.8750 | 1.11155 |
| CLEANLINESS | 1.00 | 5.00 | 4.0650 | 1.01782 |
| LABORATORY | 1.00 | 5.00 | 4.4150 | .82229 |
| CANTEEN | 1.00 | 5.00 | 3.8200 | 1.15511 |
| NURSES BEHAVIOUR | 1.00 | 5.00 | 4.4800 | .83251 |
| BILLING SERVICES | 1.00 | 5.00 | 4.1300 | .93674 |
| HOSPITAL STAFF BEHAVIOUR | 1.00 | 5.00 | 4.5100 | .74341 |
| DISCHARGE SERVICES | 2.00 | 5.00 | 4.3900 | .76867 |
| FACILITIES FOR ATTENDANTS | 1.00 | 5.00 | 3.9400 | 1.09655 |
| EXPLANATION ABOUT DISEASE & TREATMENT | 3.00 | 5.00 | 4.7050 | .55635 |
| HOSPITAL SECURITY | 1.00 | 5.00 | 4.3500 | .85508 |
| APPROACHABILITY TO DOCTOR | 3.00 | 5.00 | 4.6550 | .58967 |
| WASHROOM FACILITIES | 1.00 | 5.00 | 3.0900 | 1.31550 |
| OVERALL SATISFACTION | 5.20 | 10.00 | 8.4193 | 1.09538 |

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Table 2. OVERALL SATISFACTION SCORE (OUT OF 10)

| SCORE | FREQUENCY | PERCENTAGE |
|---------------|-----------|------------|
| 3.1-6 | 7 | 3.5 |
| 6.1-9 | 128 | 64 |
| More than 9.1 | 65 | 32.5 |
| Total | 200 | 100 |

| Variable | Mean Overall Satisfaction Score | P Value |
|----------------------|---------------------------------|---------|
| Age(years) | | |
| < 40 (n = 117) | 8.73±1 | P=0.037 |
| > 40 (n = 83) | 8.3±1 | |
| Gender | | |
| Male(n = 127) | 8.71±1.1 | P=0.6 |
| Female(n= 73) | 8.67±1.3 | |
| Background | | |
| Urban (n = 66) | 8.6±1.1 | P=0.4 |
| Rural (n= 134) | 8.4±1.2 | |
| Management | | |
| Conservative (n=100) | 8.6±1 | P=0.02 |
| Operative (n=100) | 8.2±1 | |

Table 3: COMARATIVE ANALYSIS