

# **A study to assess the determinants affecting the satisfaction level of inpatients getting admitted through the Emergency department in a tertiary care hospital, Odisha.**

**1. Mrs.Rashmi Ranjita Parhi, M.Sc. in Child Health Nursing, Tutor, Kalinga Institute of Nursing Sciences, KIIT Deemed to be University, 751024  
Email: parhi.rashmiranjita@gmail.com**

## **Background:**

Evaluation of Patient satisfaction level who are getting admitted through emergency department (ED) is very necessary because it affects the performance that reflects the high quality, efficiency, and sustainability.

## **Aim:**

- ▶ To assess the level of satisfaction in various points among inpatients following 48 hours of their admission through the emergency department.
- ▶ To find out the quality indicators of patient care through emergency department care

## **Methods:**

This quantitative cross-sectional study was conducted in the emergency department. The target population was who have been admitted through the emergency department. The data was collected after 48 hours of admission in to the hospital.

## **Result:**

Total of 98 patients were participated in this study and shared their experiences through a standard questionnaire. Total percentage of highly satisfied patients was 60.2% (n=59) for the services given by the emergency department. Total percentages of satisfied patients were 22.4 %(n=22) and Similarly each of both highly dissatisfied and dissatisfied patients were 2, and neutrals are 13.3 %(n=13).

## **Conclusion:**

Satisfaction level of patient carries the total image of the hospital. It is also a good quality indicator which enables the contact points of improvement in ED so that the hospital can provide better care and services to the patients.

**KEY-WORDS:** Patient satisfaction, Emergency department, Quality, Efficacy

## **INTRODUCTION:**

Patient satisfaction is an important and commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care.

An Important Factor for Hospital's Well-Being patient satisfaction plays an ever-increasing role in the way hospitals is judged. The perception of care is almost as important as the quality of care. Healthcare is an industry that directly affects people's lives at their most vulnerable moments.

Patient satisfaction is the most important quality indicator for the emergency department. So in this study, analysis the factors that affect the satisfaction level of the inpatients those are admitted through the emergency department so that the health care professionals are concern about these factors. This

Accident and Emergency care services is an important aspect of acute medical care provided by the hospital. This is an essential element in the contribution of the hospital towards the total health care of the community. The emergency medical service serves the community at any time of its need. Medical Emergency is a situation in which the patient requires urgent and high quality of medical care. Due to an increase in ventricular traffic and rapid industrialization, the number of accidents and emergency situations is fast increasing and which are to be of a complex nature. The quality of emergency care declines in its efficiency and particularly in accidental cases when there is a delay in processing and attending to these patients.

Organizers of A&E Department, as well as the consumer of the emergency services, should clearly define and understand the emergency medical care need of the population and the facilities available in the hospital so that maximum facilities can be provided through the limited facilities. Each hospital should have a well-organized Emergency and Accidental Department with personnel, equipment, and supplies readily available at all the times for the efficient medical care of its patients.

#### **Objectives of the Study:**

- To access the determinants affecting the satisfaction level of inpatients getting admitted through the Emergency department.
- To access the co-varies of satisfaction.

#### **METHODOLOGY:**

**Study Approach:** Quantitative.

**Study Design:** Cross-sectional observational study.

**Study Settings:** This study will be conducted in indoor wards, of Apollo hospital, Bhubaneswar, Odisha.

**Target population:** In patients who have been admitted through the Emergency Department of the Apollo hospital Bhubaneswar, Odisha.

**Sample size:** One fifth (20%) of all inpatients admitted through the emergency department over a period of four weeks at Apollo Hospital, Bhubaneswar, will be included in the study. The expected sample size is 98.

#### **Data Collection Method:**

A semi-structured interview will be developed, pretested and used for data collection from the inpatients. The interview schedule has 18 questions. After verifying the admission record of the emergency department, the eligible participants who are stable and willing to participate in the

study will be selected. If the patient is in a critical stage, unstable and unable to talk, the patient attendant will be interviewed. There were patients from all the private rooms, semi-private rooms, and wards. The interview was taken during 9 to 5 in working days, Patients were first asked if they willingly want to take part in the survey and answer the questions. No, forcefully data were taken. Those patients who were not in the condition to answer, their relatives were asked regarding the satisfaction. Patients from all age group were interviewed. There were a total of 18 questions asked to the patients, there were closed-ended questions were asked to the patients. The items of questionnaires consist of five Points like Highly Satisfied, Satisfied, Neutral, Dissatisfied, and Highly Dissatisfied. Weights allocated for the answers are as follows 5- Highly Satisfied, 4- Satisfied, 3- Neutral, 2-Dissatisfied, and 1- Highly Dissatisfied. Patients were asked and asked accordingly. People from all age group have taken part in the survey. Patients from the age group ranging from 11 yrs to 85 yrs have taken part in this satisfaction survey. In this survey out of 98 Participants, 37 participants were new and 61 of them were old.

#### **Data Analysis Plan-**

Summary statistics of all covariates and outcome variables will be done followed by vicariate analysis will be carried out to ascertain the association between the outcome variable and its co-varieties and data were analyzed with the help of pie chart and bar graph. Scoring of data was done as 5- *Highly Satisfied*, 4- *Satisfied*, 3- *Neutral*, 2-*Dissatisfied*, and 1- *Highly Dissatisfied*. And total scores were calculated. Frequency and percentage were calculated, and patient satisfaction was analyzed by the graph showing the percentage for each individual questions.

#### **Study design:**

It was a real-time survey of patients who were treated and managed in the ED of a specific tertiary care hospital in March 2019. ED work on shift basis comprising of three shifts; morning, evening and night shift. The ED has well-defined on triage criteria.

#### **RESULTS:**

##### **SECTION-1**

	<b>FREQUENCY</b>	<b>VALID PERCENTAGE</b>
<b>TYPE OF PATIENT</b>		
New	37	37.8%
Old	61	62.2%
<b>AGE OF THE CLIENT</b>		
1-3 Yrs	4	(4.1%)
3-5 Yrs	14	(14.3%)
5-12 Yrs	35	(35.7%)
12-18 Yrs	5	(5.1%)
18-21 Yrs	40	(40.8%)
<b>CATEGORY</b>		
Attendant	67	68.4%
Patient	31	31.6%
<b>CATEGORY OF SEX</b>		

<b>ATTAINED THE INTERVIEW</b>		
Pt. Male	20	20.4%
Pt. Female	11	11.2%
At. Male	42	42.9%
At. Female	25	25.5%

**SECTION- 2**

<b>SERVICES ATTRIBUTE</b>	<b>PERCENTAGE</b>				
	<b>HIGHLY DISSATIFIED</b>	<b>DIS-SATISFIED</b>	<b>NEUTRAL</b>	<b>SATISFIED</b>	<b>HIGHLY - SATISFIED</b>
Q.1) TIME TAKEN BY TRIAGE STAFF	4.1%	1%	5.1%	11.2%	78.6%
Q.2) TIME TAKEN TO GET AN EMERGENCY BED	8.2%	1%	6.1%	7.1%	77.6%
Q.3) TIME TAKEN UNTIL BEGINNING OF TREATMENT	4.2%	1%	4.2%	11.5%	79.2%
Q.4) SATISFACTION WITH THE TIME TAKEN TO BE ADMITTED/DISCHARGE.	8.2%	3.5%	1.2%	10.6%	76.5%
Q.5) FOR INSURANCE RELATED COUNSELLING	1.9%	5.6%	7.4%	14.8%	70.4%
Q.6) DOCTORS WERE CARING AND CONCERNED	3.2%	2.1%	1.1%	9.5%	84.2%
Q.7) DOCTORS COMMUNICATION	3.2%	2.1%	3.2%	8.5%	83%
Q.8)DOCTORS INFORMED YOU ON YOUR HEALTH CONDITION	2.1%	2.1%	2.1%	9.5%	84.2%
Q.9) DOCTORS INFORMED	6.5%	1.3%	1.3%	9.1%	81.8%

YOU OF RESULTS OF TESTS/INVESTIGATION					
Q.10) DOCTORS INFORMED YOU ABOUT NEED FOR ADMISSION	4.8%	2.4%	2.4%	7.1%	83.3%
Q.11) NURSES SHOWED CARE AND CONCERN	2.1%	1%	00	7.2%	89.7%
Q.12) NURSES ATTEND TO YOU WHEN REQUIRE	2.1%	1.1%	00	7.4%	89.4%
Q.13) NURSES INSERTED CANNULA/IV LINES SKILLFULLY	5.9%	00	5.9%	17.6%	70.6%
Q.14) PARAMEDICAL STAFF WAS FRIENDLY	3.4%	00	00	00	96.6%
Q.15) PARAMEDICAL STAFF WAS EFFICIENT	00	00	00	10.5%	89.5%
Q.16) CHARGES WERE REASONABLE	1.6%	1.6%	14.1%	57.8%	25%
Q.17) OVERALL SATISFACTION	2%	2%	13.3%	22.4%	60.2%
Q.18) YOU WOULD RECOMMEND THIS SERVICE TO FAMILY AND FRIENDS IF NEEDED.	2.1%	6.3%	13.7%	26.3%	51.6%

**Patient point of view:**

1. Not available any waiting areas or sitting areas for emergency patient's attendant.
2. No vehicle parking areas for emergency patients.
3. Late for getting an emergency bed.
4. HMIS is not properly functioned like in one case the discharge is not shown after one year. So that the admission process is so late.

5. Doctors were not attending the patient immediately after getting an emergency bed.
6. In one case doctors fault about medication, so the patient face problem for claiming insurance.
7. Due to the shortage of nursing staff, the treatment was late.
8. In one case-patient did not get proper information about insurance-related things.

#### **Observation from my point of view:**

1. Overflow of patients to the emergency department.
2. Insufficient waiting areas.
3. Doctors were not more experienced.
4. Insufficient of nursing staff.
5. A triage system is not followed by emergency department properly.

#### **DISCUSSION:**

Patient satisfaction is among the most important factors and indicators of quality in a hospital. Patient satisfaction surveys act as a means to measure the efficacy of a department worldwide. Due to the fact that the ED is a unique department among other medical care services, understanding of the factors affecting patient satisfaction is essential. Findings indicate that 60.2% of the clients show very high general satisfaction with regard to ED performance. Further analysis of the data shows that 22.4% have only satisfied. In total, 82.6% of the clients rated their satisfaction as above average. In our study around a number of new patients were 37 and the numbers of the old patient were 61. That is a good sign for the hospital. In between 1-3yrs age group there were 4 no. of children, 3-5 yrs. 14 no. of children, In between 5-12 yrs the number of children were 35 and 12-18 yrs were 5. In between 18-21 yrs, the no. of children were 40. Above all the respondent numbers of the attendant were 67 and the number of patients was 31. Around 78.6% (n=77) of patients were highly satisfied for the time taken in triage staff. And very less percentage of patients i.e. 4.1% (n=4) were highly dissatisfied. Similarly, 11.2% (n=11) is only satisfied, 5.1% (n=5) is neutral and 1 patient was only dissatisfied for this contact point. For the time taken to get an emergency bed the total number of the highly satisfied patients were 77.6% (n=76), the only satisfied patients were 7.1% (n=7), the neutral patients were 6.1% (n=6), dissatisfied patient were only 1 and highly dissatisfied patient were 8.2% (n=8). In the case of the beginning of treatment highly satisfied patients were 79.2% (n=76) and highly dissatisfied patients were 4.2% (n=4). The number of the satisfied patients were 11, 4 numbers are neutral and 1 was dissatisfied. The percentage of patients that highly satisfied with the time taken for admission or discharge was 76.5% (n=65) and highly dissatisfied was 8.2% (n=7). In this case total, 3 were dissatisfied 1 neutral and only 9 were satisfied. In the case of insurance related counseling, there were 38 numbers of patients were highly satisfied and only 1 was highly dissatisfied. About caring and concerned of the doctor, that 84.2% (n=80) of the patient was highly satisfied and the total number of

highly dissatisfied were 3.2%(n=3). And remain rest were satisfied, neutral and dissatisfied. For the doctor's communication, the total number of the highly satisfied patients were 83% i.e. n=78. And the highly dissatisfied patient was only 3. Dissatisfied were 2, neutral was 3 and satisfied were 8. In the case of the doctor's information, 80 patients were highly satisfied that they were fully happy with the information given by the doctors. There were 2 numbers were highly dissatisfied and neutral and 9 number were satisfied with the services. In the case of doctors information about tests or investigation total highly satisfied patients were 81.8%(n=63), highly dissatisfied patients were 5, that means they were either not get the doctors information or that information was not sufficient for them. In the case of doctor's information about the need for admission, the total number of highly satisfied patients were 83.3 %(n=70), and highly dissatisfied number of patients was 4. Similarly, each of both dissatisfied and neutral number of patients was 2 and a satisfied number of patients was 6. This analysis concluded that in the contact point of the doctor, the patients were highly satisfied with the doctors. Small numbers of patients were not satisfied with this point of view. In the turn of nurses, care and concern highly satisfied percentage of patients were 89.7 %(n=87). That number shows that the emergency department is highly strong about nursing care. A number of highly dissatisfied patients were 2 and dissatisfied was 1 and satisfied numbers of the patient were 7. In the case of nurse's attention about care when requiring the total number of highly satisfied patients were 89.4 %(n=84). Highly dissatisfied patients were 2. The dis-satisfied patient was 1 and satisfied patients were 7. In the case of inserted cannula or I/V lines was skillful, the highly satisfied number is 24 and each of highly dissatisfied and neutral number of patients was 2 and only satisfied numbers are 6. Other patients were unable to share their experience. In the case of the friendliness of the paramedical staff, the total numbers of highly satisfied patients were 28 and highly dissatisfied is 1. Other patients were not shared their experience. In the case of efficient of paramedical staff, the highly satisfied is 17 and only satisfied is 2. Other patients were don't know about the efficiency of the staff. The turn of charges was reasonable the highly satisfied number of the patient was 16, only satisfied number of the patient were 37 and neutrals were 9 and both of highly dissatisfied and dissatisfied number is 1. So in the case of charges, most of the patients were only happy but not highly satisfied. For overall satisfaction the total numbers of highly satisfied percentage were 60.2 %(n=59), satisfied were 22.4%(n=22), neutral were 13.3%(n=13). Both of dissatisfied and highly dissatisfied numbers were 2. At last, whether they are recommended these services to family and friends that the 49 numbers of patients were highly satisfied that they sure recommended. 25 numbers of patients were satisfied and 13 were neutral, 6 were dissatisfied and 2 were highly dissatisfied that they are never recommended that services. From a study observed that higher degrees of ED crowding at admission might be associated with lower real-time patient satisfaction [10]. In a Dutch tertiary care center another specialty was consulted in 24% of the patients, mostly for an appropriate reason, and rarely because of lack of expertise [14] Consultation is an ordinary and vital aspect of emergency department (ED) practice which can lead to delays in patient flow. Little is known about ED consultations and this review analytically evaluated the literature on ED consultations [15].

**CONCLUSION:**

This study showed that in order to provide optimal ED services and win patients' satisfaction, research-based interventions are needed in areas such as waiting time, various investigation, doctor's services, nursing services, staff behavior and treatment of patients. To make these improvements, institutionalizing quality management in health services is a must, and using its feedback in a systematic way can enhance efficiency and patient satisfaction with the ED. We found that the satisfaction level of the entire patient varies from the different contact point, that the reducing of waiting time for all the contact point is most important for patient satisfaction. Good experience of the doctor, nurse's well care and concern, how much they are skilled for the nursing assessment. Behavior, communication of all the staff like admission staff, billing staff, triage staff, transport staff, pharmacy staff, etc. Information given by the doctors, nurses also impacts the patient's satisfaction. Patients were generally satisfied with the reception and care given by the triage nurses, but less satisfied about information about expected waiting time. We suggest, therefore, that patients should be routinely informed about their estimated waiting time to be seen by the doctor in addition to their triage level. In tertiary care EDs, ED LOS can be concentrated in the process of laboratory/radiology testing and consulting is optimized and the decision-making and discharge measures are accelerated[13]. The finding of the study shows that the services given by the emergency services that mostly satisfied the emergency clients in various fields. Such as waiting time, waiting areas, physical comfort, physicians care, nurses care, and the total ED satisfaction is relatively agreeable.

#### RECOMMENDATIONS:

1. Provide sufficient waiting areas for the attendant of the emergency department.
2. Vehicle parking areas for the emergency department.
3. An experienced doctor should be allocated to the emergency department.
4. An adequate number of nursing staffs should be provided in the emergency department.
5. As triage system was not followed strictly, the Triage system should be strictly followed by the department.
6. Length of Stay in the emergency department also affects the patient's satisfaction. Therefore once the patient is stabilized should be shifted to the concerned IPDs. If a shortage of IPD bed is the concern, that should be removed.
7. Information for the patient delivery system is so late. Hence use of mobile communication may be employed.

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