

# Level of Patient Satisfaction in Surgical Emergency Department of Mayo Hospital, Lahore – A Cross Sectional Survey

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## ABSTRACT

**Background:** Patient satisfaction is considered one of the reliable metric to measure the efficacy of a health care system. Emergency departments are the most crowded places of a hospital.

**Aim:** To find out the level of satisfaction among patients coming to emergency department of Mayo Hospital Lahore and identify the factors affecting satisfaction level of these patients.

**Methods:** A cross-sectional survey was conducted during 2017 in a tertiary care hospital of Pakistan. Non-probability convenience sampling technique was used. Information was collected by a pre-designed, pre-tested questionnaire and data was analyzed through SPSS.

**Results:** Majority of the respondents (77.2%) were satisfied with the emergency care they received. Factors significantly affecting satisfaction level ( $p\text{-value} < 0.05$ ) were educational status of the patients, sitting arrangement in waiting area, skill of emergency department nurse, attitude of the doctor, understandable language used by the doctor, level of care provided by the doctor, the skill of emergency department doctor, response to the patients' call, attitude of the security staff, cleanliness of the toilets, parking facility of the emergency department

**Conclusion:** Emergency department care needs to be evaluated frequently, to find out the weak areas and improve the quality of our public health care systems accordingly.

**Keywords:** Patient satisfaction, Mayo Hospital, Emergency Department, Tertiary care hospital.

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## INTRODUCTION

Level of patient satisfaction is increasingly being seen as a scale to predict efficacy of a health care system. Emergency units are considered the reflection of whole of the health providing system as they mostly are the first level of interaction between a patient and the medical system and there is an increasing burden on emergency departments as a whole due to increased number of patients when compared to available doctors, staff and health care facilities<sup>1</sup>.

Most studies have assessed various service factors (perceived and actual waiting times; explanations /information on multiple aspects of process and treatment; staff attitudes; ED environment; perceived standards of technical care) and patient factors (age, sex, social status, ethnicity, and severity of illness) while evaluating satisfaction level of the patients<sup>2</sup>. Less important factors are cleanliness, courtesy of radiology staff, comfort during sampling (drawing blood) and waiting area comfort<sup>3</sup>.

In Pakistan, inspite of huge health infrastructure at the primary care level, it is most likely the dearth of quality that only 21% of the patients go to a public health center for seeking care and 77% per capita health expenditures is incurred in the private sector<sup>4</sup>. This indicates that patient satisfaction level in private set ups is higher (greater than 60 to 70%)<sup>5</sup> as compared to public set ups<sup>6</sup>. Hence the patient satisfaction feedback is a true need of government sector health units to bring positive changes accordingly.

Also there is a great discrepancy among the results of various studies conducted in Pakistan as seen in Razzak et al & Khursheed et al<sup>7</sup>. This again may be due to the difference of these studies being conducted in private versus public set ups. For Pakistan, low income country,

there is a need for effective emergency medical care, in government hospitals<sup>8</sup>. And for Mayo Hospital, Lahore, being one of the largest referral centers of the country, there is an actual need for assessing not only the overall satisfaction level of its patients, but also determine the factors that affect this to take positive actions to improve satisfaction rate. We decided to conduct a cross sectional survey with a relatively larger sample size (115 participants), keeping in view the work of Tasneem A et al done on a smaller sample (50 participants)<sup>9</sup> to evaluate the factors causing dissatisfaction among the patients.

The objectives of the study were to find out the level of satisfaction among patients coming to emergency department of Mayo Hospital Lahore and to Identify the factors affecting satisfaction level of these patients.

## METHODS

This is a cross-sectional survey conducted using a pre-designed, pre-tested questionnaire (based on 55 questions), on patients admitted to Surgical Emergency Department of Mayo Hospital, Lahore as surveyed during the year 2017. Sample was selected based on non-probability convenient sampling technique with patients falling in the age group of greater than 12 years and less than 85 years surveyed after taking a written informed consent (inclusion criteria). We used Statistical package for social sciences (SPSS) for data analysis. Quantitative variables such as age were presented as mean $\pm$  SD. Qualitative variables like gender and responses were presented as frequency and percentages. Association between variables was calculated by chi square test. P-value  $< 0.05$  was taken as significant.

## RESULTS

We surveyed a total of 115 participants. For overall satisfaction rate, 77.2% were satisfied and 21.9% were dissatisfied while 0.9% gave no comments. Out of these participants, 40.8% were males and 59.13% were females.

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76.5% females and 77.6% males were satisfied with the overall emergency services. Also 85.29% females and 87.23% males rated their general experience of the emergency department of Mayo hospital as fair or good. Mean age of the participants was  $40.47 \pm 18.02$ . Satisfaction level was significantly affected ( $p$ -value $<0.05$ ) by the educational status of our participants. The general trend turned out to be decreased percentage of satisfied patients with increasing education.

In our study, the ratings for the doctors to be the major cause of satisfaction were on the top (84.3%), while most patients rated lengthy waiting time as the cause of dissatisfaction. And these causes had a significant relation ( $p$ -value $<0.05$ ) with the overall satisfaction percentage.

Table 1: Satisfaction Level with Age

Age Categories	% of participants unsatisfied	% of participants satisfied
Less than 18 years	12.5	87.5
18 to 50 years	29	71
Greater than 50 yrs	14.64	85.36

Table 4: Satisfaction level with emergency ward

Variables	Very poor n (%)	Poor n (%)	Fair n (%)	Good n (%)	Very good n (%)
Sitting arrangement in waiting area	2(1.7)	4(3.5)	26(22.6)	75(65)	8(7)
Skills of emergency nurse	1(.9)	12(10.4)	25(21.7)	69(60)	8(7)
Attitude of doctor	3(2.6)	12(10.4)	31(27)	58(50.4)	11(9.6)
Understandable language used by doctor	8(7)	15(13)	35(30.4)	53(46.1)	4(3.5)
Level of care provided by doctors	5(4.3)	19(16.5)	30(26.1)	55(47.8)	6(5.2)
Skills of emergency doctors	1(.9)	13(11.3)	50(43.5)	46(40)	5(4.3)
Response to patients call	1(.9)	10(8.7)	22(19.1)	76(66.1)	6(5.2)
Attitude of security staff	3(2.6)	7(6.1)	41(35.7)	60(52.2)	4(3.5)
Cleanliness of toilets	58(50.4)	30(26.1)	16(13.9)	11(9.6)	0(0)
Satisfaction with parking facility in ER	4(3.5)	4(3.5)	72(62.6)	35(30.4)	0(0)

Other factors studied in the survey i.e. marital status, occupation, diagnosis, emergency shifts, previous admission, guidance of the patient, attitude of staff in registration area, attitude of the ED nurse, explanation provided by ED nurse before administration of a drug, explanations given by the doctor about patient's condition, concern of the doctor, information provided about need of admission, follow up care and lab investigations, respect for privacy, attitude and skills of X-ray, ultrasound, blood bank and lab personals, cleanliness of the wards and time spent in the ED were not significantly associated with overall satisfaction level of the participants ( $p$ -value $>0.05$ ).

## DISCUSSION

Patient satisfaction being an indirect but effective tool to measure the success of a health system is gaining increased popularity. These surveys target weak areas of the hospital services which in turn helps concentrating more on the respective ignored areas to bring improvements. This study is one of the very initial attempts to indirectly evaluate Pakistan's Public Health Care Hospitals, considering Mayo Hospital, one of the largest referral centers of the country, as a representative. The major reason, people preferred Mayo Hospital over other private sector hospitals was ease of accessibility (66.1%) and low cost(20%) instead of high quality (only 8.7%). So, we tried to evaluate this percentage.

Table 2: Satisfaction Level with Length of Time Spent

Length of time spend	% of patients satisfied
<30 min	76.19 (48/63)
30 min - 2 hours	75.67 (28/37)
2 hours – 6 hours	77.77 (7/9)
>6 hours but discharged	100 (1/1)
admitted	100 (4/4)

Table 3: Satisfaction Level \*Educational Status

Educational status	Percentage satisfied	Percentage dissatisfied
Illiterate	83.721	16.279
Primary	86.667	13.333
Secondary	80.00	20.00
Matric	75.758	24.242
Graduation	33.33	55.556
Masters	75.00	25.00

The comparison of patient satisfaction score with respect to different demographic characteristics shows that age of the patient had a significant relationship with satisfaction score. Compared to literature review, which showed that the mean satisfaction level increased with increase in age, our research reflected greater satisfaction at extremes of age<sup>10</sup>. However, satisfaction level inversely affected by educational status of patients ( $p$ -value $<0.05$ ) being consistent with other studies<sup>11</sup>. Marital status, gender and occupational status were not significant in our studies unlike other studies where married patients and female patients in general are more satisfied.

Among the major causes of dissatisfaction, long waiting time (32%) and staff attitude (28%) were considered most important. Respondents were dissatisfied with lack of compassion shown by the emergency staff. Provider's behavior towards patients is an important predictor for patient satisfaction<sup>12</sup>. This observation in most public institutes coincides with literature which is the reason that patients prefer private health facilities instead of seeking care at public health facilities<sup>13</sup>. This is the reason that in Pakistan, only 20% of the patients go to a public health care centre while 77% per capita health expenditure is incurred in private sector. It is important for the hospital management at Mayo hospital to encourage the health personnel to embrace a healthy staff-patient relationship.

Long waiting time in our research was the most important cause of dissatisfaction, which is consistent with literature. According to Bluestein C et al<sup>14</sup>, satisfaction

score are sensitive to exam room waiting time than to time spend in designated waiting room. Clinicians usually fall behind schedule, so it is logical to allow patient to wait outside in waiting room rather than to quickly place them in exam room. Mayo Hospital lacks this facility of separate rooms which actually diminishes patient perception of clinician skills. Other culprit factors include less doctors with respect to patients, lack of proper referral in presence of increased burden and entertaining OPD cases in emergency. Rectifying all these may improve patient's confidence in public sector. Other causes of dissatisfaction included lengthy paper work (15%), lack of equipments (12%) and uncleanness. So we can enhance the patient satisfaction by providing modern equipments and computerizing the system. In our study, 76.1% patients rated cleanliness of toilets as poor which is comparable to similar studies<sup>15</sup>.

In this survey we came up with the observation that more patients were satisfied who visited the ED during night shift as compared to those visiting during morning evening shifts. This may be due to generally a less burden of patients at night, causing adequate availability of the services to relatively less number of patients. This is in contrast to the Press Ganey report which states that the highest satisfaction with the emergency department was recorded in the morning hours<sup>16</sup>.

60% of the participants were satisfied with the attitude of the doctor. However, only 48.7% of the patients were satisfactorily counseled about their condition by the doctors. Similarly, Involvement of the patient in the decision for his treatment by the doctor got very low rating. This means the patients are being deprived of their right to autonomy. This lack of communication may be blamed to less time available per patient due to increased patient load. This can be rectified by increasing number of doctors per shift. Literature review also suggests that workshops on communication skills should be held to improve doctors' abilities with a corresponding increase in patient satisfaction<sup>17</sup>.

In our survey, more length of time spent in the ED had affected the satisfaction levels of the patients positively. It may be due to increased time of interaction between health providers and patients. However, this is contrary to other studies where patients prefer to spend less time in emergency. In the Press Ganey report (2009), patients who spent more than 2h in the emergency department were less satisfied with their visits than those who were there for less than 2 h.

## CONCLUSION

Our study suggested that 78.1% of the participants would refer others, too, to Mayo Hospital, while 21.9% would not. And same is the percentage of participants being satisfied and not satisfied, respectively. So most of the patients are satisfied with the ED of Mayo Hospital, while improvements can bring up the satisfaction level even more. Patients remained satisfied with the attitude and skill of the health care providers mostly but lengthy waiting times, lack of communication, inability to maintain cleanliness of wards and toilets, not showing much concern for the patient questions and not respecting patient autonomy are the areas still to be improved. Emergency department is the

most neglected area in our country so surveys need to be conducted time and again to improve the quality of our public health care systems.

## REFERENCES

1. Prakash B. Patient satisfaction. *Journal of Cutaneous and Aesthetic Surgery*. 2010;3(3):151.
2. Scott Moses M. Emergency Department Patient Satisfaction [Internet]. Fpnotebook.com. 2018 [cited 6 January 2018]. Available from: <http://www.fpnotebook.com/Manage/Cmnctn/EmrgncyDpmtmntPtntStsfctn.htm>
3. Merlino D. How Cleveland Clinic Improved Patient Satisfaction Scores with Data and Analytics [Internet]. *Health Catalyst*. 2018 [cited 6 January 2018]. Available from: <https://www.healthcatalyst.com/how-cleveland-clinic-improve-patient-satisfaction-scores-data-analytics>
4. Babar T. Quality of health care: an absolute necessity for patient satisfaction. *Journal Of Pakistan Medical Association* [Internet]. 2005 [cited 10 January 2018]. Available from: [http://www.jpma.org.pk/full\\_article\\_text.php?article\\_id=969](http://www.jpma.org.pk/full_article_text.php?article_id=969)
5. Raheem A, Nawaz A, Fouzia N, Imamuddin K. Patients' Satisfaction and Quality Health Services: An Investigation from Private Hospitals of Karachi, Pakistan. *Research Journal of Recent Sciences*. 2014;3(7):34-38.
6. Khattak A, Alvi M, Yousaf M, Shah S, Turial D, Akhter S. Patient Satisfaction "A Comparison between Public & Private Hospitals of Peshawar. *International Journal of Collaborative Research on Internal Medicine & Public Health* [Internet]. 2018 [cited 7 January 2018]. Available from: <http://internalmedicine.imedpub.com/patient-satisfaction--a-comparison-between-public-private-hospitals-of-peshawar.php?aid=6178>
7. Khursheed M, Fayyaz J, ZiaN, et al. Real-Time Patient Satisfaction of Emergency Department Services in a Tertiary Care Hospital in Karachi. *Pakistan. Emergency Med* 2014;4(188):2
8. Razzak JA, Hyder AA, Akhtar T, et al. Assessing emergency medical care in low income countries.: a pilot study from Pakistan. *BMC Emergency Medicine* 2008;8(1):8
9. Tasneem A, Shaikat S, Amin f, et al. PATIENT SATISFACTION; A COMPARATIVE STUDY AT TEACHING VERSUS DHQ LEVEL HOSPITAL IN LAHORE, PAKISTAN. *Journal of Pharmaceutical Sciences and Research*. 2010; 2(11):767-774
10. Afzal M, Rizvi F, Azad AH, Rajput AM, Khan A, Tariq N. Effect of demographic characteristics on patient's satisfaction with health care facility. *J Postgrad Med Inst* 2014; 28(2):154-60.
11. Braunsberger K, Gates RH. Patient/enrollee satisfaction with healthcare and health plan. *J Consum Mark* 2002;19:575-90. Lau FL: Can communication skills
12. Muhondwa E, Leshabari M, Mwangu M, Mbembeti N, Ezekiel M: Patient satisfaction at Muhimbili National Hospital in Dar Es salaam, Tanzania. *East Africa journal of public health*. 2008, 5:
13. Peltezer K: Patient experiences and health system responsiveness in South Africa. *Bio Med Central*. 2009, 9: 117.
14. Bleustein C; Rothschild DB; Valen A; Valatis E; Schweitzer L; Jones R: Wait times, patient satisfaction scores, and the perception of care. *Am J Manag Care*. 2014; 20(5):393-400
15. Ayatollahi H, Rabiei R, Mehran N, Asgarian SS: Patient satisfaction in the emergency department of Beheshti and Naghavi hospitals in Kashan, Iran. *The 1st Iranian Congress on Emergency Medicine*, 20-22 Dec 2005, Tehran, Iran.
16. Press Ganey Associates: *Emergency Department pulse report*. 2009.
17. Muhondwa E, Leshabari M, Mwangu M, Mbembeti N, Ezekiel M: Patient satisfaction at Muhimbili National Hospital in Dar Es salaam, Tanzania. *East Africa journal of public health*. 2008, 5: 13.