

# PATIENT SATISFACTION IN EMERGENCY DEPARTMENT AT KING HUSSEIN MEDICAL CENTER

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## ABSTRACT

**Objective:** To measure patient satisfaction in the Emergency Department, and to identify factors influencing the level of this satisfaction.

**Methods:** The study was conducted on patients attending the Emergency Department at King Hussein Medical Center, Amman, Jordan. A questionnaire was used to collect information on their demographic profile and patient satisfaction. The ethical requirements for conducting the study were met.

**Results:** A total of 4,592 patients attended the emergency department during the study period, 692 of them were included in the study. A total of 657 (95%) patients fully answered the questionnaire, of which 59% were males, 39% were above the age of 61 years. There were high levels of satisfaction with all aspects of provided medical care. A number of issues were raised in the comments section of the questionnaire, ranging from different compliments to requests to increase the staff number and beds. The lack of a definitive diagnosis at discharge was noted.

**Conclusion:** We conclude that the vast majority of emergency department attendees at King Hussein Medical Centre were exceptionally satisfied, not only with the provided medical care but also with the other aspects of the process. We recommend, increasing the quality of emergency medical care in order to improve the satisfaction level of patients visiting such departments.

**Key words:** Patient satisfaction, Emergency Department, Jordan

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## Introduction

Patient satisfaction with provided health care services has become an open institutional goal for improving quality assurance.<sup>(1,2)</sup> Failure to identify patient expectations can lead to patient dissatisfaction with care, lack of compliance and inappropriate use of medical resources.<sup>(3)</sup> Triage category is strongly correlated with satisfaction, but this also relates to waiting time. The three most frequently identified service factors were: provision of information /explanation; perceived waiting times and interpersonal skills/staff attitudes. Interpersonal continuity (personal doctor-patient relationship) is

considered one of cornerstones of patient satisfaction with provided health care.<sup>(4)</sup> There are several studies on patient satisfaction conducted in Jordan, as early as 1990, which proposed many possible interventions that could be customized to meet our Emergency Department's (ED) needs to improve patient satisfaction. Among these interventions is the development the interpersonal and attitudinal skills of staff, increasing the information provided, and reducing the perceived waiting time. The articles already published can provide information for the development of future strategies for assessing and improving patient

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satisfaction in emergency medicine. Although not all patients attending the ED may be satisfied all of the time, we could investigate measures that will please a greater number of patients most of the time.

The aim of this survey is directed towards measuring the level of patient satisfaction and identifying factors that influence it.

## Methods

We conducted a hospital-based study in the ED at King Hussein Medical Center, in Amman-Jordan. Data was collected over a two weeks period, seven days per week, 24 hours per day, during April 2006. Patients aged 20 years and above were randomly selected; a questionnaire was distributed by the study investigators (doctors and nurses) to patients. Ethical requirements for the study were met which included taking written informed consent and providing assurance with regards to confidentiality. Since we used a convenience sample, a sample size was not determined at the outset. A specially designed questionnaire was used, which was filled by the patient himself.

The questionnaire contained different aspects of the health care process (triage process, staff attitude, waiting time before exam, total waiting time, predicted cause of assumed long waiting time, provided information and explanation, ED cleanliness and ambient and overall satisfaction, in addition to the age and sex of the patient). A five-point scale was used to measure the satisfaction in most of these aspects (1=bad, 2=fair, 3=good, 4=very good and 5=excellent). The waiting time (both before examination and total) was estimated as whether it was too long, or acceptable, and the other aspects were measured by yes or no answers.

## Results

A total of 4,592 patients attended the ED during the period of the study and 692 of them were surveyed. Patients aged 20 years and above were included in the study. About 35 questionnaires were excluded, as they were incomplete. The other 657 questionnaires were fully answered. Out of the total, 59% were males and 41% were females (Table I), 39% were above the age of 61 years, 32% were aged 41-60 years, and 29% were aged 20-40 years (Table II). There were high levels of satisfaction with all aspects of provided medical care. About 69% of the total gave a five point score and more than 17% gave a score of four to the triage process.

**Table I.** Number and percentage of males and females in the study group

Gender	Number	%
Male	387	59
Female	270	41
Total	657	100

**Table II.** Distribution of the different age groups in the study sample

Age groups (years)	Number	%
19-40	191	29
>40-60	210	32
> 61	256	39
Total	657	100

The staff attitude received a score of five in 76% and 71%, and four scores in 16% and 20% for nurse attitude and doctor attitude respectively.

The waiting time (before examination) was too long for only 27 (4.1%) patients, long for 63 (9.5%) patients and acceptable for 567 (86.3%) patients. The total ED waiting time was too long for 6.2%, long for 8.3% and acceptable for 85.5% of the patients. Those who claimed that the total waiting time (after examination) was too long (41 patients), attributed this delay to ED crowdedness and delayed doctor attendance (91%), delayed laboratory tests and X-rays (7%) and delays due to other administrative procedures (2%).

A good number of surveyed patients received information and explanation on their problems, laboratory tests and X-ray results and medications (86%, 86% and 83% respectively). More than 93% were happy with the cleanliness and the ambient in the department (Table III).

The overall reported satisfaction was excellent in 63%, very good in 23% and good in 13% of the patients (Table VI).

A number of issues were raised in the comments section of the questionnaire, like different compliments (23 comments) and requests to increase the staff and bed numbers (2 comments).

## Discussion

Many problems are intrinsic in the analysis of satisfaction in ED patients. Firstly, "satisfaction" is not easy to define; secondly, methods of quantifying and qualifying satisfaction are still emerging in emergency medicine, and thirdly, emergency physicians provide care to the largest and most diverse patient population.

**Table III.** Patients' evaluation of their hospital care among the study participants

Factors	Score	Number	%
Triage Process	Score 5	453	69
	Score 4	114	17
	Score 3	54	9
	Score 2	27	4
	Score 1	9	1
Nurse attitude (Scores)	Score 5	498	76
	Score 4	105	16
	Score 3	45	7
	Score 2	9	1
Doctors attitude (Scores)	Score 5	468	70
	Score 4	129	20
	Score 3	57	9
	Score 2	3	1
Time before examination	Score 1	0	0
	Too long	27	4
	Long	63	10
Total waiting time	Acceptable	567	86
	Too long	41	6
	Long	54	8
Crowdedness and Delayed Dr or Nurse	Acceptable	562	86
	Too long time because	37	6
	Delayed tests or X rays	3	0.5
Too long time because	Delayed other admin procedures	1	0.2
	Explained results	567	86
Explained results	No	90	14
	Drugs explained	543	83
Drugs explained	No	114	17
	ED cleanliness	612	93
ED cleanliness	Yes	45	7
	No		

**Table VI.** Patient satisfaction with their hospital care in this study

Factors	Score	Number	%
Questions answered	Yes	567	86
	No	90	14
Overall Satisfaction	Score 5	411	63
	Score 4	153	23
	Score 3	84	13
	Score 2	9	1

Awareness of the quality of patient care and patient satisfaction has become a key health care issue in the last decade, not only among authorities, policymakers, and managers, but also among physicians and patients.<sup>(5,6)</sup>

The results of this study are in accordance with the general trend of patient satisfaction studies, which resulted in very high levels of satisfaction, especially in neighboring countries.<sup>(6-10)</sup>

Significantly high levels of patient satisfaction with ED personnel attitude, triage (as front door of the ED) were observed. This, as part of interpersonal continuity and first contact of the patient with the ED staff, seems to be an important factor influencing patient satisfaction and their first impression. Many studies<sup>(4,11,12)</sup> have concluded that interpersonal continuity improves patient satisfaction. Patient dissatisfaction may adversely affect the patient's willingness to return with emergency care, but on the other hand, it may lead to repeated visits to the ED.<sup>(13)</sup>

The vast majority of our sample were greatly satisfied with both pre examination waiting time and total waiting time (86% and 75% respectively). A golden standard is followed in our ED, which says "a patient should not be retained in the ED for more than two hours." This standard is very useful in shortening the patient stay in the ED, and by the end, it has its positive impact on patients' expectations and satisfaction.

Hedges *et al*<sup>(14)</sup> and Boudreaux *et al*<sup>(15)</sup> in their studies have come to a conclusion that efforts should be focused on improving patients' perception that waiting times are appropriate rather than simply shortening waiting times per se, and that changing perceptions of throughput times may yield larger improvements in satisfaction than decreasing actual throughput times.

Although the total ED waiting time was too long for only a small proportion of our group (6.2%), it seems this was justified, taking in consideration the conflicts that take place between different specialties on to whom a certain case may belong, and that some cases may be shared and supervised by different specialties which leads to delay in making decision whether to discharge or admit the patient.

One of the factors affecting patient satisfaction is providing patients with enough information and explanation on their concerns, laboratory tests, X-ray findings and medications. In our survey, it emerged that a high percentage of surveyed population were satisfied with the provided information and explanations (83-86%). In his study,<sup>(16)</sup> Sun *et al* stated that patient-reported problems that were highly correlated with satisfaction included amongst others, poor explanation of causes of problem and poor

explanation of test results, but Boudreaux *et al* in their survey<sup>(17)</sup> found that perceived waiting times before exam, discharge instructions and waiting time satisfaction were statistically associated with satisfaction in only one of his four assessments. The overall patient satisfaction in our survey is very high (86%), mean score was 4.3 points out of 5, which is similar to other studies in which satisfaction scores ranged from 60%-90 %.<sup>(6-8,18-22)</sup>

In the present study, variables accompanying high overall satisfaction included 'not too long time spent in the ED', 'clear answers and explanation by the ED staff', and 'hospitable attitude of the ED staff'.

## Conclusion and Recommendations

We conclude that the vast majority of ED attendants at KHMC are outstandingly satisfied not only with the provided medical care but also with the interpersonal relationship with ED staff. Variables that were associated with overall satisfaction were personnel attitude, waiting time and information/explanation offered. We recommend, increasing the quality of emergency medical care provided in ED in order to improve the satisfaction level of patients visiting such departments. This is likely to reduce patient complaints.

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## Questionnaire

The special questionnaire used in this study (translated from Arabic)

Patient name..... I D Number..... Date.....

Age.....Attending Doctor.....

Arrival time..... Discharge / Admission time.....

Triage procedure: -

1. Excellent
2. Very good
3. Good
4. Acceptable
5. Bad

Waiting time before Exam

1. Too long
2. Long
3. Acceptable

Nurse attitude

1. Excellent
2. Very good
3. Good
4. Acceptable
5. Bad

Doctors attitude

1. Excellent
2. Very good
3. Good
4. Acceptable
5. Bad

Total waiting time

1. Too long
2. Long
3. Acceptable

If too long, Why

1. E D crowdedness
2. Doctor delay
3. Nurse delay
4. Delayed Tests
5. Delayed X ray
6. Delayed admin procedures

Did you get explanation on your concern, lab. Tests and X ray results?

1. Yes
2. No

Did you get your questions answered?

1. Yes
2. No

Did you get explanation on your medications?

1. Yes
2. No

Department cleanness

1. Clean
2. Moderately clean
3. Not clean

Do you think your case is urgent?

1. Yes
2. No

If not urgent, your visit's cause is:-

- 1.
- 2.
- 3.

Free comments