

# Patients Satisfaction with the Medical Services of the Emergency Department during holidays: A Survey in three main Hospitals Affiliated to Ahvaz Jundishapur University of Medical Sciences

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## ABSTRACT

One of the principles of Medical ethics is patient satisfaction and it is thus essential to observe the medical ethics in services and patients' rights. Paying attention to patients' views and comments will make us aware of the reasons for their dissatisfaction and can be used to reform the service system structure. One of the indices of evaluation of quality services in different hospitals is to determine the patients' satisfaction with services in a particular department. Since the emergency department is the place to which the critically ill patients first refer, the quality of the services provided in this department and the patients' rate of satisfaction with the services is indeed an indicator of the overall status of the hospital. The emergency medical centers are the most highly frequented places of hospitals. As the number of the personnel decreases during holidays and more patients refer to hospitals during these days, they will be more likely to be dissatisfied with the services. The present research aims to investigate the satisfaction rate of patients referring to the emergency departments of the hospitals affiliated to Jundi Shapur Ahvaz University of Medical Sciences. This research is a cross-sectional study to evaluate the patients' satisfaction with the medical services of the emergency department of the hospitals affiliated to Jundi Shapur Ahvaz University of Medical Sciences (Razi, Golestan and Imam Khomeini hospital) during the holidays of a 6-month period in Autumn & Winter 2009. The research population was selected using random sampling method and the sample size was estimated about 149 people with the 95% confidence level. Of 149 patients, 88 (59.1%) were female and 59 (39.6%) were male. The participants' mean age was 39 years old with the age range of 16 to 81 years. The overall satisfaction rate was 51.2% in 3 categories where 62.2% for specialized services, 44.2% for accessory services, and 43.1% for hospital facilities and costs. The order of the patients' satisfaction was 54.9% for Golestan Hospital, 49.5% for Imam Hospital and 47.7% for Razi Hospital. The patients' satisfaction rate with specialized services, accessory services, hospital facilities and costs for the Golestan, Imam, and Razi Hospitals was respectively 68.2%, 4.05%, 42.03%; 60.08%, 42.05%, 42.03%; and 57.7%, 43.15%, 39.4%. No significant relationship was found between the patients' demographic characteristics and their satisfaction rate. The highest rate of satisfaction was for the specialized services, while the lowest rate was for the accessory services.

**Key words:** Satisfaction, Emergency Medical ward, Jundi Shapur Ahvaz University of Medical Sciences.

## INTRODUCTION

One of the principles of Medical ethics is patient satisfaction and it is thus essential to observe

the medical ethics in services and patients' rights. Paying attention to patients' views and comments will make us aware of the reasons for their dissatisfaction and can be used to reform the

service system structure. Actually, patients' rate of satisfaction is an important criterion that can be used to evaluate the quality of health cares and will provide us with important information about the degree to which the clients' needs and expectations have been met (1,2).

Surveys of patient satisfaction have shown that this criterion can be used as a routine tool to enhance the quality of services and organize the medical services of emergency departments. Such surveys will determine special programs to measure the type and quality of the medical cares of emergency departments in order to provide patient satisfaction and will show the practical strategies needed for progress (3).

The increased knowledge about ethical issues in different societies has necessitated observing the ethics related to health and medical cares and highlighted the importance of observing the medical ethics as a new and special solution (4). Taking measures to make patients autonomous and satisfied with services in order to protect them against damages and risks has now been taken for granted (4). Accordingly, it is necessary to observe the patients' individual rights (in terms of security and freedom) and social and civil rights (in order to make use of their participation) in health, medical and research cares. In medical profession, the main goal is to help patients and to avoid doing things that will harm them (4, 6). The easiest way to be aware of people's wants and expectations and to get to know about what they desire and expect is to ask them questions about their needs and wants. The doctor-patient relationship should be based on ethics and patients should be able to change their doctors easily whenever they want. For this purpose, patients should not be made to explain their illness hurriedly and without hesitation. The patients' rights in the health system guarantee the good doctor-patient relationship (7, 8).

Basically, quality is a multifaceted concept, an important facet of which is patient satisfaction. Improving the quality of services in the emergency department involves accurate recognition of the status quo and exploration of the problems faced by this department (9).

Paying due attention to patients' complaints is considered a part of the satisfaction strategy (8). The most common factors that affect the satisfaction process are the patients' social class, physical and mental status, level of education, the amount of medical care received and the recovery rates after referring to the emergency departments (10). Patient satisfaction is a concept that has nowadays become especially important in medical cares although the attention to this concept dates back to the 1950s (11). Actually, paying particular attention to this aspect of patients' perception can help improve the quality of health services in the emergency department and all other departments of hospitals. Two similar studies conducted in different health centers in Iran to evaluate patients' satisfaction, reported 47.1% and 96.7% satisfaction rate (12, 21).

Since the emergency department is the place to which the critically ill patients first refer, the quality of the services provided in this department and the patients' rate of satisfaction with the services is indeed an indicator of the overall status of the hospital. The emergency medical centers are the most highly frequented places of hospitals. As the number of the personnel decreases during holidays and more and more patients refer to hospitals during these days, they will be more likely to be dissatisfied with the services. The quality and quantity of health and welfare services received by patients are of significant importance. Therefore, the present study aimed to investigate the satisfaction rate of patients referring to the emergency departments of the three main Hospitals affiliated to Ahvaz Jundishapur University of Medical Sciences (Imam Khomeini, Razi, and Golestan Hospitals).

#### **Research Method**

This research is a descriptive cross-sectional study conducted on the patients referring to the emergency departments of the three hospitals during the holidays of the second-half year 2009. Contribution of each hospital was determined based on the average number of the patients referring to that hospital.

The questionnaire included questions about the patients' age, gender, level of education,

place of living and job (demographic characteristics) as well as 29 questions (with yes-no answers) about their satisfaction with how the services are provided in the emergency department. 13 questions were related to specialized services, 3 questions were related to administrative and accessory services, and 13 questions were related to the hospital facilities and costs.

The information collected by the questionnaire was processed using SPSS 16 after it was completed and encoded. We used the mean and standard deviation in order to describe the quantitative data, used percentage to represent the qualitative variables and used chi-square test to analyze the results ( $P < 0.05$  is considered as statistically significant).

In order to determine the patients' satisfaction rate, we defined satisfaction based on the positive responses (having satisfaction) at three levels as poor satisfaction (0%-30%), average satisfaction (31%-60%) and good satisfaction (61%-100%). We used Chi-square Test in order to determine the second goal of the research; that is, to determine the relationship between the patients' demographic characteristics and their satisfaction rate.

## RESULTS

The survey of patient satisfaction with the medical services of the emergency departments in Razi, Imam and Golestan hospitals during the holidays of the second half of the year 2009 showed that the patients' overall satisfaction is 51.2%. In order to examine their rate of satisfaction more closely, we divided satisfaction into three categories; namely, specialized services, accessory services and facilities and costs and their rate of overall satisfaction and satisfaction at three sub-groups was obtained in each hospital as follows:

Their satisfaction with the three categories was as follows: 62.2% for specialized services, 44.2% for accessory services, and 43.1% for hospital facilities and costs; and their satisfaction with hospitals was obtained as follows: 54.9% for Golestan Hospital, 49.50% for Imam Hospital and 47.7% for Razi Hospital.

The second goal of the research was to determine the relationship between the patients' demographic characteristics and their rate of satisfaction with the medical services of the emergency departments in Razi, Imam and Golestan hospitals during the holidays of the second half of the year 2009.

**Table 1: The relationship between patients' gender and their rate of satisfaction with the services of the emergency departments in Razi, Imam and Golestan hospitals during the holidays of the second half of the year 2009**

Gender	Response rate			Total
	good	average	poor	
Number of females	14	62	9	85
percentage of gender	16.50%	72.90%	10.60%	100%
percentage of the total	0%	44.30%	6.40%	60.70%
Number of males	7	44	2	53
percentage of gender	13.20%	83%	3.80%	100%
percentage of the total	5%	31.40%	1.40%	9/37%
number	0	1	0	1
percentage of gender	0%	100%	0%	100%
percentage of the total	0%	7%	0%	0.70%
number	0	0	1	1
percentage of gender	0%	0%	100%	100%
percentage of the total	0%	0%	0.70%	0.70%

Although no significant relationship was observed between the male and female patients' rate of satisfaction ( $p=13.4$ ), the female patients' rate of satisfaction at three levels of poor, average and good satisfaction was greater than the male patients'. The two groups showed a higher percentage at good and average satisfaction than at poor satisfaction (Table 1).

Examining the relationship between the patients' type of houses and satisfaction rate showed that those with personal houses had higher satisfaction at the two levels of good and average satisfaction. The lowest rate of good satisfaction belonged to the patients having rented houses.

**Table 2 : The relationship between patients' type of houses and their rate of satisfaction with the medical services of the emergency departments during the holidays**

Gender	Response rate			Total
	good	average	poor	
Number of personal houses percentage of location percentage of the total	11 15.50%	57 80.30%	3 4.20%	71 100%
Number of rented houses percentage of location percentage of the total 20	5 25%	13 65%	2 10%	20 100%
Number of government-leased houses percentage of location percentage of the total	3 15.80%	15 78.90%	1 5.30%	19 100%
Other types of houses percentage of location	2 6.90%	23 79.30%	4 13.80%	29 100%
	1.40%	16.50%	2.90%	20.90%

**Table 3: The relationship between patients' jobs and their rate of satisfaction with the medical services of the emergency departments during the holidays**

Patients' jobs	Response rate			Total
	good	average	poor	
Number of housekeeping patients Percentage of the job percentage of the total	4 12.50%	27 84.40%	1 3.10%	32 100%
Number of patients with administrative jobs Percentage of the job percentage of the total	8 15.40%	42 80.80%	2 3.80%	52 100%
Number of patients with service jobs Percentage of the job percentage of the total	5 19.20%	17 65.40%	4 15.40%	26 100%
Number of patients with specialized jobs Percentage of the job percentage of the total	3 15.80%	12 63.20%	4 21.10%	19 100%
The total number Percentage of the job percentage of the total	10 7.80%	98 76%	21 16.30%	129 100%
	7.80%	76%	16.30%	100%

Good satisfaction was shown respectively by the patients with personal houses, the patients with other types of houses, the patients with government-leased houses and the patients with rented houses. However, no significant relationship was shown between the patients' place of living and their satisfaction rate ( $p= 6.03$ ) (Table 2). Figure 8 and Table 6 show the relevant information

Investigating the relationship between the patients' job and satisfaction rate showed that the patients having administrative jobs had more

satisfaction at good and bad levels. At the good level of satisfaction, the patients with specialized jobs and the housekeeping patients showed equal satisfaction rate, but no significant relationship was found between patients' job and their satisfaction rate ( $p= 7.4$ ) (Table 3).

Investigating the relationship between the patients' level of education and their satisfaction rate showed that the patients having academic education had more satisfaction than other groups. The satisfaction percentage at the good level was

**Table 4: The relationship between patients' level of education and their rate of satisfaction with the medical services of the emergency departments during the holidays**

Level of education		Response rate			
		poor	average	good	total
literacy	number	5	9	1	15
	percentage of education	33.30%	60%	6.70%	100%
	percentage of the total	3.60%	6.60%	0.70%	10.90%
Secondary school degree	number	1	21	4	26
	percentage of education	3.80%	80.80%	15.40%	100%
	percentage of the total	0.70%	15.30%	2.90%	19%
diploma	number	3	32	8	43
	percentage of education	7%	74.40%	18.60%	100%
	percentage of the total	2.20%	23.40%	5.80%	31.40%
academic	number	2	41	8	51
	percentage of education	3.90%	80.40%	15.70%	100%
	percentage of the total	1.50%	29.90%	0.80%	37.20%
unspecified	number	0	2	0	2
	percentage of education	0%	100%	0%	100%
	percentage of the total	0%	1.50%	0%	1.50%
total	number	11	105	21	137
	percentage of education	8%	76.60%	15.30%	100%
	percentage of the total	8%	76.60%	15.30%	100%

**Table 5: The relationship between patients' age and their rate of satisfaction with the medical services of the emergency departments during the holidays**

age	number	mean	Standard deviation	Standard error	Confidence interval of 90% for the mean		minimum	maximum
					Low limit	High limit		
poor	13	32.69	12.73	3.53	24.99	40.38	20	57
average	108	40.6	14.69	1.41	37.79	43.4	17	81
good	21	40.28	15.73	3.43	33.12	47.45	16	70
total	142	39.8	14.76	1.23	37.38	42.28	16	81

equal for the patients with academic education and those having diploma degree, and it was greater than that for the other groups. However, no significant relationship was found between patients' level of education and their satisfaction rate ( $p=16.06$ ) (Table 4).

Investigating the relationship between the patients' age and their rate of satisfaction showed that the highest rate of satisfaction belonged to those with the average age of 40. However, no significant relationship was observed between the patients' age and their satisfaction rate ( $p=0.18$ ) (Table 5).

## DISCUSSION AND CONCLUSION

This research was a descriptive study evaluating patients' rate of satisfaction with the medical services of the emergency departments in Razi, Imam and Golestan hospitals during the holidays of the second half of the year 2009. The results of the study showed that 51.2% of the patients referring to the emergency departments had overall satisfaction with the services.

Their rate of satisfaction with the specialized services, accessory services and the facilities and costs was 63.2%, 44.2% and 43.1% respectively. Actually, the highest rate of satisfaction was shown to be with the specialized services by the doctors and nurses, whereas the lowest rate was with accessory services including the service staff's behavior and their way of transferring patients.

A study conducted by Entezari Asl & Motamedi also showed that 78.1% of patients were satisfied with the way the services were provided, 93.8% were satisfied with the specialized medical services, 92.3% were satisfied with the doctors and nurses' way of behavior, 40.2% were satisfied with the high cost of the services received, and 42.9% were satisfied with the lack of access to non-emergency medicines in pharmacies and hospitals (2). This study also showed that the highest rate of satisfaction belonged to the specialized services provided by doctors and nurses. However, the total percentage of satisfaction is higher in this study than in our study, which can be due to the climate changes between the two regions.

The study done by Zohal *et al.* suggested that 79% of the patients were satisfied with the speed with which medical cares were provided, 78.3 percent were satisfied with the doctors' attendance at patients' bedside, 87.4% were satisfied with the speed of the filing system, 79.4% were satisfied with the doctors' behavior, 77.2% were satisfied with the nurses' rate of skill, 79.4% were satisfied with the time period of paraclinical services and 46.6% were satisfied with access to medicine and medical equipment (15). The satisfaction percentage in this study was also higher than that in our research.

The patients' overall satisfaction was obtained as 72% in a study conducted by Seif Rabiei and Shahidzadeh Mahani (16).

A study carried out by A'zami & Akbarzadeh also indicated that 77% of the patients' were satisfied with the nurses, 40% were dissatisfied with the radiology services, 80% were satisfied with the doctors, and 56% had overall satisfaction, while 40% were only partly satisfied.

The study conducted by Sheikhi & Javadi in autumn 2010 showed that 59% of patients had a high rate of satisfaction with the services provided by the emergency department. It was also shown that 781% of them were highly satisfied with the medical and paraclinical services. However, an average rate of satisfaction was shown with admittance, nurses' mental cares and discharge services and costs respectively by 62.6%, 62.5% and 49.2 % of patients (14).

It was shown by the study conducted by Omidvari *et al.* that 44% of patients had good or very good satisfaction, 54.3% were dissatisfied with the welfare services, 26.2% were dissatisfied with the paraclinical services and 54.2% were dissatisfied with the information presented by doctors (14).

Overall satisfaction with the medical services of emergency departments was shown by the study done by Michael Howard (2007) to be 62.3% (21). In Daniel's (1999) study, the patients' overall satisfaction with the medical services of the emergency departments was 52% (22). A comparison of the present research with similar

studies shows that the overall satisfaction obtained in this research (51.2%) is low and it seems that the low satisfaction has probably been due to the large number of the patients referring to the hospitals, the terribly hot weather in Khuzestan Province and the decreased number of the personnel during the holidays.

The overall satisfaction obtained in this study with the three hospitals was as follows: 54.9 for Golestan Hospital, 49.5% for Imam Hospital and 47.79% for Razi Hospital, which shows that patients have higher overall satisfaction with Golestan Hospital than with the two other hospitals, and that improving patients' satisfaction with these hospitals requires solemn attempts to be made by hospital operators, doctors and the personnel of the hospitals, especially those of the two latter hospitals which had received a lower degree of satisfaction, to satisfy the patients' needs for services (especially accessory services including the service staff's behavior and their way of transferring patients, facilities including the welfare facilities of the emergency rooms, and access to medicines and the medical equipment needed, access to radiology and laboratory) and the amount of costs received in the three hospitals, especially in Razi Hospital, should be reformed.

In the present research, no significant relationship was shown between the patients' satisfaction rate and their demographic information including gender ( $p= 13.4$ ), the type of the place of living ( $p= 6.3$ ), job ( $p= 7.4$ ), the educational level ( $p= 16.3$ ) and age ( $p= 0.18$ ). However, the study done by Seif Rabiei and Shahidzadeh revealed that there is a significant relationship between patients' satisfaction and their educational level ( $p= 0.005$ ) (16).

It was also shown in the study carried out by Zafarghandi et al. that there was a significant

relationship between satisfaction with admittance and patients or their companions' level of education ( $p= 0.004$ ). However, there was no significant relation between patients' satisfaction and their age (17).

The study done by A'zami & Akbarzadeh also showed no significant relationship between satisfaction and variables such as the place of living, job and gender. However, there was a significant relationship between satisfaction and educational level ( $p= 0.03$ ) (18).

The findings of this research showed that 51.2% of the patients were satisfied with the services on the whole, and the highest rate of satisfaction was with the specialized services, while the lowest satisfaction rate belonged to the accessory services. The highest rate of overall satisfaction was shown to be with Golestan Hospital, which held the record for the highest rate of specialized satisfaction as well.

The patients' demographic characteristics did not affect their estimate of satisfaction. The findings of the present study necessitate more serious attention to the way services are to be provided in the hospitals and particular attention to the accessory services and the facilities and costs. Furthermore, the hospitals with less satisfaction rate should follow those with higher satisfaction rate in order to increase their patients' rate of satisfaction with the medical services of their emergency departments, which are actually among the most important departments of hospitals.

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