

## EVALUATION OF PATIENTS' SATISFACTION WITH EMERGENCY WARDS OF EDUCATIONAL HOSPITALS AFFILIATED TO JAHROM UNIVERSITY OF MEDICAL SCIENCES AFTER IMPLEMENTATION OF HEALTH PROMOTION PLAN, 2016

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### ABSTRACT

**Introduction:** Patients' satisfaction with the emergency department of hospitals is very important. The part of health promotion plan is focus on improving the quality of emergency wards services. Therefore, the aim of this study was to determine the satisfaction rate of patients from emergency wards of educational hospitals affiliated to Jahrom University of Medical Sciences after implementation of health promotion plan.

**Method:** This is an ex-post facto study. The sample size calculated 720 patients by Cochran formula ( $\alpha = 95\%$ ). All the patients, except cancer patients and deceased participated in this study. In cases that the patient was unable to fill out the questionnaire such as children or patients with inappropriate general condition, the family and caregivers filled out the questionnaire. A researcher-making questionnaire used to collect data. The quantitative and qualitative face and content validity (CVI: .89, CVR: .81, IS> 3.5) was calculated with the help of 10 professors and its reliability was calculated by Alpha Cranach's method (.77) with interview of 15 patients that exclude from sample size. Sampling by stratified random sampling (each hospitals 360 patient) performed at the time of discharge of patients on all weekdays, even on Fridays and in all shifts. The questionnaire consisted of 37 questions. Eight questions were in demographic characteristics and 29 questions were in the quality of service delivery. All the questions were graded Yes (1) or No (0). The Interviewers trained in interviewing conditions. The questionnaire consisted of three sections: special services, auxiliary and administrative services, and facilities and expenses. The questionnaires were anonymous and there was no compulsion to collaborate. Data were analyzed by SPSS:16 software.

**Results:** 77.89% of the patients were satisfied with the quality of services in the emergency wards. 70.98% of the patients were satisfied with the facilities and expenses, 87.93% with the auxiliary services and 82.46% with the special services. There is a significant statistical correlation between gender and patients satisfaction level by the Chi-square test ( $p=0.03$ ). By the Chi-square and Pearson tests, no significant relationship was found between the education level, age, marriage and income with the patients satisfaction ( $p>0.05$ ). By using the multivariate linear regression test in Stepwise method, only job ( $F=5.888$ ,  $Sig=0.022$ ) was which could predict 16.9% the variations of the patients' satisfaction score from the emergency wards, its effect was ( $Beta=-.411$ ).

**Conclusion:** Considering to the high patients' satisfaction rate of the emergency wards and the effectiveness of the performed the health promotion plan, it is recommend that a comprehensive program prepare and implement in the low-level item of satisfaction, such as facilities and equipment.

**Introduction**

patients' satisfaction index is important from two dimensions. First, it indicates the acceptance of the medical and caring recommendations of medical team. Second, it shows the evaluation of patients of hospital performance (1). Successful hospitals consider to the patient's views as main factor in the competition and choose the necessary strategies. Patient's satisfaction is the most important factor in gaining accreditation and social dignity of hospitals (2). Emergency wards of hospitals are also the most important ward of hospitals, and satisfaction or dissatisfaction can be considered as the most important factor for hospital evaluation. In hospital accreditation, emergency ward is the first ward that evaluated if this ward does not accreditation, the hospital will not evaluate (3).

Many studies implemented about patient satisfaction in the emergency wards and showed different results. In a study that conducted by Jalili on 317 patients in Tehran, it showed that 2.2% of the patients weren't satisfied with the expectance time, 83.29% of physicians' performance and 30.02% with the lack of information were not satisfied (4). Another study, which had been done by, Valli on 550 patients referred to the university hospitals in Tehran, showed that the highest level of satisfaction was with the physician's communication and the lowest level of satisfaction with the availability of the doctor (5). In another research that carried out in Hamedan University of Medical Sciences by Adabi and Akbari, only 47.1% of patients satisfied from emergency wards services (6).

In Iran, studies have shown that patients' satisfaction with hospital emergency wards is often in low or moderate level. Excessive costs of treatment, physician's unavailability and inadequate facilities, equipment and structures have been factors in reducing patients' satisfaction. These cases are commonly present as patients' dissatisfaction factors in most hospitals. In Iran, the Ministry of Health and Medical Education, according to its responsibilities and missions and based on main documents, in 2013, the health system promotion plan has been implemented with three approaches: in financial protecting of people, equity in accessing to health services and improving the quality of services(7).

The health promotion plan includes eight executive packages: 1- reducing the payment of patients. 2- Support the specialists' attendance in 24 hours in hospital especially in deprived area. 3- Support the specialists' attendance in deprived area. 4- Improve the quality of hoteling in hospitals. 5- Improving the quality of visited services. 6 -Promote NVD. 7 - Financial supporting of special disease such as cancer, MS etc. 8 - starting up the helicopters emergency (8). These 8 executive packages are running at all medical universities in the country (9). Considering that two years after the implementation of the health promotion plan, there has not been performed a comprehensive assessment of patients' satisfaction with hospital emergency wards, Therefore, the present study aimed to determine the rate of patients' satisfaction from Jahrom University of Medical Sciences hospitals.

**Method:** This is an ex-post facto study. The sample size calculated 720 patients by Cochran formula ( $\alpha = 95\%$ ). All the patients, except cancer patients and deceased participated in this study. In cases that the patient was unable to fill out the questionnaire such as children or patients with inappropriate general condition, the family and caregivers filled out the questionnaire. A researcher-making questionnaire used to collect data. The quantitative and qualitative face and content validity (CVI: .89, CVR: .81, IS> 3.5) was calculated with the help of 10 professors and its reliability was calculated by Alpha Cranach's method (.77) with interview of 15 patients that exclude from sample size. Sampling by stratified random sampling (each hospitals 360 patient) performed at the time of discharge of patients on all weekdays, even on Fridays and in all shifts. The questionnaire consisted of 37 questions. Eight questions were in demographic characteristics and 29 questions were in the quality of service delivery. All the questions were graded Yes (1) or No (0).The Interviewers trained in interviewing conditions. The questionnaire consisted of three sections: special services, auxiliary and administrative services, and facilities and expenses. The questionnaires were anonymous and there was no compulsion to collaborate. Data were analyzed by SPSS:16 software.

**Results:** 60% of the patients were female and 34.7% of them were single. 21.9% were illiterate, 29.3% had undergraduates, 13.8% had diploma and 35.4% had university education. 66.7% of them had an average income in low and moderate level.

77.89% of the patients were satisfied with the quality of services in the emergency wards. 70.98% of the patients were satisfied with the facilities and expenses, 87.93% with the auxiliary services and 82.46% with the special services. The highest satisfaction rate was announced with the admission to the emergency wards and the lowest satisfaction rate was with the stretcher and wheelchair deficiency (table 1).

There is a significant statistical correlation between gender and patients satisfaction level by the Chi-square test ( $p=0.03$ ). By the Chi-square and Pearson tests, no significant relationship was found between the education level, age, marriage and income with the patients satisfaction ( $p>0.05$ ). By using the multivariate linear regression test in Stepwise method, only job ( $F=5.888$ ,  $Sig=0.022$ ) was which could predict 16.9% the variations of the patients' satisfaction score from the emergency wards, its effect was (Beta=-.411) (table 2).

Table 1: Relative Satisfaction of the Emergency wards of Jahrom University of Medical Sciences Hospitals

questions	Satisfaction rate%	questions	Satisfaction rate%
Did they easily take you to the emergency ward?	95.3	Was bedding, blankets and pillows available?	82.9

Were you exam easily by a nurse after your arrival?	83.6	Was the toilet available?	85.3
Were you exam immediately by a physician?	54.6	Was Wheelchair Accessible?	81.7
Were the tests done right away?	56.1	Was the stretcher available?	58.8
Did radiology and other diagnostic methods performed immediately?	59.7	Has the patient transmitted by the service staff?	52.1
Did your Vital Sing control immediately?	86.7	Was there any medicine and medical equipment needed at the hospital pharmacy?	82.4
Did you have oxygen right away?	78.6	Did your medications give promptly?	69.4
Were your wounds dressed as soon as possible?	86.7	Were you satisfied with the quality of food?	80.1
Were your serum instantly plugged in?	86.7	Was the environment of the emergency department clean?	66.8
Were you satisfied with the behavior of nursing staff in the clinic?	86.4	Was peace and quiet on the emergency department?	83.5
Were you satisfied with the behavior of the physician in the clinic?	84.4	Would you feel the psychological security and respect for the personnel?	83.3
Did the doctor pay attention to the patient's talk?	86	Was not the expenditure of emergency department expensive for you?	80.3
Was your examination with respect and respect for human dignity and self-esteem?	87.2	Have you been trained the needs by the personnel?	62.9
Did other emergency personnel have a behavior with you?	86.2	Was the behavior of the emergency personnel satisfactory with your companions?	84.9
Was the emergency department suitable for you?			
Total : 77.89			

Table 2: Multiple linear regression test in Stepwise model for demographic variables

ANOVA						
Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	.737	1	.737	5.888	.022
	Residual	3.630	29	.125		
	Total	4.367	30			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.399	.279		8.593	.000
	job	-.144	.059	-.411	-2.427	.022
Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.411	.169	.140	.35379		

**Discussion:** The results of this study show that 77.89% of the patients were satisfied with the quality of services in the emergency wards.

The highest level of satisfaction were with the auxiliary and specialized services, and then with the facilities and expenses. However, a high level of satisfaction indicates that there are good hardware and software facilities in the hospitals and using them to the possible extent has been suitable that could attract patients' satisfaction. The results also showed that 83.6% were satisfied with the nursing care, 95.3% with the admissions and 84.9% with the self-care education.

In a similar study, which performed on 550 patients admitted to the emergency wards of Kerman University Hospitals, the highest satisfaction level related to the physician's communication and the lowest satisfaction level related to the physician's availability. However, 46.4% of the patients in this study were not immediately examine after entering to the emergency ward and were dissatisfied with this. This is emphasized throughout the world on various studies. For example, in a study done by Bodr ack in the United States showed that the manner of visiting, reducing the waiting time and the quality of health cares had the greatest impact on the patients' satisfaction. In another study in Canada, the quality of emergency ward care evaluated in 13 emergency centers in 2003, which it was reported with a total satisfaction of 73.1%. It was also with nursing care satisfaction (75%), satisfaction with treatment (74%) and satisfaction with explanation about cares (71%) (10, 11).

In some studies, one of the most common causes of decreasing the patients' satisfaction announced with deficiency of facilities in the emergency wards (2). The wheelchairs and stretchers deficiency match with the results of the present study. Therefore, it seems that hospitals should be more focus on providing more equipment for the emergency wards (5).

When a patient refers to a hospital to receive health services, there is a series of expectations and values in his/her mind that he/she will evaluate the hospital and eventually declare his/her satisfaction or dissatisfaction. This is also varies for each patient depending on cultural, social and economic conditions of different communities (6).

The important point in this study was the low level of education and income of the patients. Therefore, the high level of satisfaction in these hospitals is demonstrating a good status in the existent geographical area. In other words, other studies can be compared with this study if there are similar conditions for respondents. The similarity of the results of the studies in other hospitals in different countries cannot be indicative of the absolute or relative superiority of the emergency wards in this study. So it's better to compare it with the other studies done at this university during the previous years.

Patients' satisfaction with nursing cares evaluated as 84.97%. The Ministry of Health also confirms the 70% statistics on the patients' satisfaction with the nurses in hospitals. In a study done in Turkey on 422 discharge patients in the emergency wards, the quality of nursing care had the greatest impact on patients' satisfaction (1). Other studies also emphasize the quality of nursing services as one of the determinants of patients' satisfaction. Therefore, since most care providers in hospitals are nurses and this group is in the first line of patient care and their activities have a great impact on the quality of care and thus the patients' satisfaction, it is necessary to attract the authorities' attention to access the ways to improve the quality of services in this ward (14,12).

Compared results of this study with the previous studies in the years before the implementation of the promotion plan by Taheri and Hojjat, the satisfaction rate of the emergency wards show was increasing of 5-16%. Particularly in the part of facilities and expenditures, which the most dissatisfaction in previous researches was reported in this part, the 16% increase in satisfaction was reported. In the specialized services part, at least 5% increase in satisfaction, and in the auxiliary and administrative services, at least 11% increase has observe (14, 1).

Considering that satisfaction measurement has been done in different past years and the changes observed in the satisfaction evaluation weren't a lot, the changes relatively observed well in this study can further indicate the effect of the health promotion plan on increasing patients' satisfaction. Because the health promotions plan, can able to reduce direct payments from patients' pockets, especially low-income groups. In addition, ensure the attendance of specialist as gynecologist, surgeon, pediatrician, emergency and internal medicine in the hospitals and emergency wards within 24 hours. Therefore, it seems that the most environmental and managerial changes created by this plan have been able to increase satisfaction in patients referred to the emergency department, because there's not happen other particular change in this regard in the plans and even the structure of the emergency departments than the previous studies.

Of course, it should be mention that this level of satisfaction is suitable for educational hospitals, because if the hospitals become educational, it causes being central in education, research and training of human resources in them. Thus, it reduces patients' satisfaction (15).

We can refer to the self-making questionnaire as the limitations of this study.

**Conclusion:** Considering to the high patients' satisfaction rate of the emergency wards and the effectiveness of the performed the health promotion plan, it is recommend that a comprehensive program prepare and implement in the low-level item of satisfaction, such as facilities and equipment.

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