

## ASSESSMENT OF SATISFACTION AMONG PEOPLE ACCOMPANYING PATIENTS IN THE CASE OF SERVICES PROVIDED AT EMERGENCY DEPARTMENT OF HOSPITALS AFFILIATED TO URMIA UNIVERSITY OF MEDICAL SCIENCES, IRAN

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### ARTICLE INFO

**Received:**

03<sup>th</sup> Jun 2017

**Accepted:**

29<sup>th</sup> Nov 2017

**Available online:**

14<sup>th</sup> Dec 2017

**Keywords:** *Satisfaction, Emergency Department, Accompanying Patients*

### ABSTRACT

**Introduction:** Patient satisfaction is known as a quality outcome measure of quality of care provided by the staff of the emergency department (ED). Many factors affect on the patient satisfaction. Since accompanied patients (AP) play a vital role in providing psycho-social support to patients, their satisfaction can effect on patient satisfaction. However little is known about AP expectations, prospects and satisfaction. The aim of this study is to assessment of accompanying persons' satisfaction from services provided at emergency departments in hospitals of Urmia university of medical sciences.

**Methods and Materials:** A descriptive- cross-sectional study was conducted in three ED of hospitals affiliated to Urmia university of medical sciences, Iran in 2010. The study population consisted of 400 accompanied patients who were randomly selected from study settings. Data were collected through a self-structured questionnaire that reliability of which had been measured by specialists and validity evaluated by internal consistency method. Collected data analyzed by SPSS software descriptive statistics (SPSS 16.0).

**Results:** The study findings indicated that in the case of services provided at ED of hospitals affiliated to Urmia university 11.69% of AP was dissatisfied and 67.75% was satisfied. Also it has revealed, the greatest satisfaction factors of ED characteristics among AP was meaningful communication with 79.67% followed by accountability with 75.94% ,and nurse and staff care with 75.33%. The most dissatisfaction factors were from facilities with 16.76%, costs with 16% and accountability with 13.26%.

**Conclusion:** To achieve maximum quality of health care services, increasing customer (patient and AP) satisfaction based on customer – centered plan can be helpful. Attention to human factors such as communication, right accountability and proper care play a major role for increasing customer satisfaction. Consideration of facilities and cost of treatment are also important in customer satisfaction..

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**To Cite This Article:** Ali Enshaie, Rahim Baghaei, Seyfolah Rezaei, (2017), "Assessment of Satisfaction among People Accompanying Patients in the Case of Services Provided at Emergency Department of Hospitals Affiliated to Urmia University of Medical Sciences, Iran", *Pharmacophore*, **8(6S)**, e-1173565.

### Introduction

atient satisfaction is a significant measure for evaluating the quality of services provided by health care facilities. The US Institute of Medicine (IOM) published a most important report in 2001. It defined "critical factors in order to improve health- care quality which including; safe, equitable, evidence based, timely, efficient and patient-centered" [1,2]. The last factor mentioned can directly influence on patient satisfaction. In the process of providing high quality health care according to above six aims at a hospital, all hospital wards, departments and their personnel are involved. The performance of each of

them could somehow be involved in patient satisfaction. Among them, the first and most important departments are emergency department (ED) and their personnel. Because this department is the first medical treatment section of the hospital that patient and accompanied persons refer for seeking care and treatment.

Patient satisfaction has been strongly advocated by ED personnel as an important indicator of quality of care provided[3]. Patient satisfaction defined when the patients expectancy and attitudes for treatment and care are met [3, 4]. Usually patients' expectations are wide-ranging and often unclear. Health-care provider must follow out the values of patient-centered and continually obtain, recognize, and address many patients' expectations and satisfaction. Patient satisfaction causes to create positive perception to ED personnel, enhances compliance with discharge orders, and affects patients' outcomes after they leave the ED and finally actual response to care and treatment [3, 5, 6]. Also patient satisfaction leads to less malpractice, professional reputation and improvement the financial situation of the hospital, and a pleasant work environment for staff [5]. So it is very effective indicator to measure the success rates of ED personnel, doctors and hospitals.

Briefly to provide patient satisfaction, health-care providers must first know what patients require and expect from a health-care system. If ED personnel are alert of their patients' expectations for care they can manage them in a timely way to better meet the patients' desires and also plan to enhance patient satisfaction. Hospital emergency department has special importance because of the type of service they provide. Unfortunately, from the standpoint of patients, ED in particular at hospital affiliated to medical sciences university, has usually an unpleasant situation; an overcrowding with heavy emergency resource demand - wide variety of patients with accompanying person (AP), ED personnel and also sometimes the presence of outside care provider- with a lot of information exchange, prolonged patient waiting times, practice hallway medicine, decision density and work in a loud and frequently disorderly environment. Along with all of them, while patients are in pain, scared, anxious and want to rest at an independent room, often personnel and supplies are inadequate for the number and needs of the patients. These all lead to make smaller satisfaction in emergency departments.

When people refer to ED for seeking treatment they are often accompanied by partner, child, a relative or a friend. Accompanying person have also own experiences and perspectives from health-care providers and in addition they are influenced by the ED personnel similar to patients. They play a vital role in providing psycho-social support to patients [7], and usually have an affirmative efficacy on medical encounters<sup>8</sup>. For this reason their satisfactions- that help to create patient satisfaction- are an important issue for improving quality of patient care and treatment. Their behavior- including satisfaction or dissatisfaction- could be influenced on the patients' decision and behavior against the ED personnel and also indirectly on their treatment process and quality of health-care services.

Survey and assessment of satisfaction among patients and their accompanied-customer satisfaction - may facilitate a high quality of health-care services according to the important factor of patient- and family centered. In the past years, it has seen a steady increase in patient satisfaction surveys and assessments in varying settings. The most articles[ 9,10,11 ] discussed that patient satisfaction rely on defining the patient's perception, developing a multidisciplinary team, and performing a plan in which every member of staff was a part of that .Also many factors were introduced as effective factors on this issue. While there are some researchers that studied about influence of people who accompany patients on every day visits to the doctor especially focused on the elderly patients, children and cancer patients [8,12-35] but evaluation of satisfaction among people accompanying patients- as a factor affecting the patient's condition- is scarce. As a result, this article focuses on assessment of satisfaction among people who accompany patients and refer to ED in order to improve the quality of emergency department services.

## Methods and Materials

**Study Design** - A descriptive, cross-sectional study that to be aimed for acquiring the answer to the basic question: How satisfied were accompanying patients with the medical treatment at the ED?''

**Sample size calculation** - For this purpose, the study population consisted of 400 persons based on the following formula which has been used for calculation of sample size in descriptive studies. For affirmation the researcher has estimated 50% proportion for calculating appropriate sample size; If: P/Proportion: 0.50, Confidence value/ Z 95%=1.96, distance value/  $d=0.05$ (error)  $N = [Z^2 P (1-P)]/d^2 \Rightarrow N = 384$ .

For re-affirmation; 400 persons selected randomly as sample size in this study. Persons were recruited who at least 10 hours passed from their patients' admission to the emergency departments.

**Study Setting** - The participants were selected randomly among people accompanied with patients referred to emergency departments of three hospitals affiliated to medical sciences university. The study was carried out in different shift work of the Imam Khomeini, Shahid Motahari and Taleghani hospitals in the second half of 2010, in Urmia, Iran.

**Data Collection** - Data were collected through a self-structured questionnaire and self- administered questionnaire - Just in case that people were illiterate and could not complete the questions, the questionnaire was completed by the investigator during verbally interview. The reliability of questionnaire had been measured by specialists and validity evaluated by internal consistency method. For this purpose, designed questionnaire provided to 30 study populations and then the Cronbach's alpha calculated for the 0.82. Questionnaire included three parts; the first part was demographic characteristics (gender, age, relationship to the patient, level of education, occupation, and how many times has referred to this ED? and ultimately patient outcome). The second part built-in 32 questions in order to achieve the desired results of seven factors of

ED characteristics (accountability of staff, meaningful communication, information provided, nurse and staff care, facilities, physical environment, and all costs of ED). Responses were considered in Likert 3-point scale of “dissatisfied” (1 point), “neither satisfied nor dissatisfied” to “satisfied” (3points). Responses to the items of satisfaction questions were scored as 1= dissatisfied, 2= neither satisfied nor dissatisfied and 3= satisfied.

**Data Analysis** - All analyses were performed using the Statistical Package for the Social sciences (SPSS 13.0). Data analysis performed by descriptive statistics.

**Ethical Considerations** - The study was approved by the ethics committee of Urmia University of Medical Sciences, Iran. Interviewers were informed that their participation was confidential, anonymous, and voluntary. Nowhere mentioned the name of the patient and his/her accompanied. In the questionnaire the name of patient and his/her accompanied not included and even the hospitals are listed in numbered 1, 2 and 3 respectively, without any name. The study questionnaires were filled in a secure environment without the hospital staff.

**Our limitations** - Our research is a cross-sectional study. For this reason, cause-and-effect determinations of factors responsible for AP satisfaction cannot be interpreted in this article. Some of participants were illiterate and couldn't complete the questions. So investigator had to complete their questionnaire through verbal interview. In these cases, it was trying to avoid researchers' opinion in the questionnaires. Due to non-cooperation or incomplete answers of some questionnaires, some of the samples removed (6 samples were removed). Since the number of samples was more than the minimum number of cases required, incomplete samples did not impact on the result.

## Results

In the total sample of accompanied patients who completed questionnaire (N = 394), 53% of them were male, 9.7% were younger than 19 years, 46.2% between 20 and 39, 33.8% between 40 and 59, and 10.3% older than 60 years. The most of accompanied patients (25.2%) were in aged group of 20 – 29 years. While 23.2% of sample population was illiterate, 29.7% had educated less than 6 years and 11.7% had educated above 12 years (College education). In this study 13.9% of accompanied patients were jobless. Among sample population 63% were kin relationship, 21% friends and 16% were patients' neighbors. Accompanied patients referred to ED for the first time were 95.4%, 2.8% for the second time and 2.5% more than two times. Eventually, their patient outcomes were; 85.8% discharge, 13.3% hospitalization and 1.2% death (Table No.1).

Satisfaction about seven factors of ED characteristics (accountability of staff, meaningful communication, information provided, nurses' and staff care, facilities, physical environment, and all costs of ED) were assessed by 32 questions that mentioned in table No.2.

The mean results of questions about seven factors of ED characteristics in the listed hospitals indicated in table No. 3. According to this table; the greatest satisfaction was included meaningful communication with 79.67% followed by accountability with 75.94% and nurses' and staff care with 75.33%. Facilities item with 16.76% accounted for the largest percentage among factors that AP were dissatisfied. After that, costs with 16% and accountability with 13.26% were factors that caused more dissatisfaction. Totally 11.69% of AP was dissatisfied from services provided at ED and 67.75% was satisfied. Persons with neither satisfied nor dissatisfied idea were 20.54% of study population.

It should be mentioned, the researchers identified ED characteristics of each 3 listed hospitals of this study and presented to Urmia University for further review and more consideration about ED condition of these university hospitals -this article is not the place for their mention-. In the hope that, along improving the quality of health-care, patient and AP satisfaction will increase.

## Discussion

There are lots of problems about customer's - patients and their accompanied - satisfaction from ED. Firstly; satisfaction is not a defining and measuring issue. Secondly, there are not a defined or specific method for assessment of satisfaction among patients and their accompanied. Thirdly, there is a little information or survey about satisfaction among accompanied patients. Fourthly personnel and physicians in ED care and cure for the largest and most varied patient population as compared other hospital wards. Of course it creates lots of diverse expectations that their answering will be so difficult. Patient satisfaction study and emergency department has been receiving increasing attention[1,3, 5,7, 11, 17, 18, 19], but there is infrequent satisfaction study among people who accompanying patients and referred to ED. So we can't compare our study with others in the case of methodology or results. The strength of our research confirm by many studies that have shown and emphasized on “the positive influence of accompanying people on patient-doctor interactions [1,3,7,8,11,20,21,22 ,23].

This study has shown 79.67% of AP satisfied from meaningful communication of ED staff. This finding is in line with a study conducted by Ekwall A and et.al who has concluded that good interpersonal interaction can completely impress satisfaction in the ED. These relationships play a fundamental role to developed patient care and health outcomes<sup>7</sup>- although that research was among patients, no AP-. Among AP participated in this study 75.94% satisfied about accountability from ED personnel. Subsequently nurses' and staff care (75.33%), facilities (72.82%), information provided (68.34%), physical environment (66.16%), and costs (16%) were satisfied factors of ED among participated. The first three factors; meaningful

communication, accountability and nurses' and staff care shows appropriate communication, timely response and nursing care are the most important factors to the satisfaction of the participants in this study. But according to the dissatisfied factors [facilities (16.76%), costs (16%), accountability (13.26%), information provided (11.55%), physical environment (10.75%), nurses' and staff care (10.57%), meaningful communication (2.96%)] should be done to address of customer's (patient and AP) satisfaction according to their expectations and opinion. As a result, it can suggest that in our community ED in affiliated hospitals university has somewhat improved their customer satisfaction rates based on customer – centered plan.

**Conclusion**

Patient satisfaction is one of the main indicators of quality of care and service delivery. Attention to the patients' expectations can improve the health-care outcomes and increase their satisfaction. Patient satisfaction from the emergency department is also an indicator of quality of care provided by the staff of the emergency department[3]. The relationship between satisfaction and quality of care provided, complex and affected patient, physician and hospital service provider<sup>24</sup>. Since accompanied patients play a vital role in providing psycho-social support to patients, their satisfaction can impact on patient satisfaction. Therefore information about their expectations, prediction and satisfaction is an important issue for attaining patient satisfaction. Again it should be emphasized that patients and families have ideas, expertise, perspectives and expectations. If they will recognize, subsequently their satisfaction will be achieved. All of them can consequently, change and improvement within the health care system. "The hospital of the future is realized with patients and families at the top of the hierarchy" [25] . Moreover The US Institute of Medicine (IOM) in 2006 defined a fine point about ED ; "the safety net of the safety net"[26], which confirms for a need to increase the provision of health care in the ED of hospitals in anywhere of the world . To achieve maximum quality of health care services, health care provider should increase their customer satisfaction rates based on customer – centered plan.

**Acknowledgement**

The authors thank the Deputy of Research in Urmia University of Medical Sciences, and hospital managers of Imam Khomeini, Shahid Motahhari and Taleghani hospitals in Urmia that helped us in conducting the project. Also we gratefully acknowledge the very helpful cooperation of the physicians and personnel in ED of three listed hospitals and all participants in this research who took the time to contribute to this project.

**Table No.1-** General Demographic features of participants in this study. (No . = 394)

Demographic characteristics	Features	No. (%)
Gender	Male	209(53%)
	Female	185(47%)
Age	10-19	38(9.7%)
	20-29	98(25.2%)
	30-39	86(21%)
	40-49	61(15.6%)
	50-59	71(18.2%)
	60-69	40(10.3%)
Relationship to the patient	kin relationship	246 (63%)
	friends	82(21%)
	neighbors	66 (16% )
Level of education	illiterate	90(23.2%)
	less than 6 years	116(29.7%)
	6-12 years	71(18.2%)
	12 years	71(18.2%)
Occupation	above 12 years	46(11.7%)
	Jobless	54(13.9%)
	jobholder	55(14%)
	Laborer	54(13.9%)
	Housekeeper	136(34.8%)
How many times has referred to this ED?	self-employment	95(24.3%)
	Once	373(95.4%)
	Twice	11(2.8%)
Patient outcome	More than Twice	10(2.5%)
	Discharge	335(85.8%)
	Hospitalization	52(13.3%)
	Death	7(1.2%)

**Table No. 2-** Results of seven factors of ED characteristics in three hospitals of this study. ( No. = 394)

ED characteristics		Dissatisfied No.(%)	Neither satisfied nor dissatisfied No.(%)	Satisfied No.(%)
Information provided	Entrance to the ED	12(6)	24(12)	156(78)
	Reception	20(10)	32(16)	144(72)
	Refer to the Lab	12(6)	16(8)	40(20)
	Refer to the fund	28(14)	48(24)	112(56)
	Refer to the drugstore	20(10)	40(20)	92(46)
Meaningful communication	Receptionist	4(2)	45(22.5)	128(64)
	Emergency physician	5(2.5)	23(11.5)	172(86)
	Emergency nurse	7(3.5)	33(16.5)	152(76)
	laborer in ED	6(3)	24(12)	132(66)
	Insurance agent	-(-)	4(2)	8(4)
Nurses' and staff care	As soon as possible	24(12)	23(11.5)	153(76.5)
	The time spent for examination	20(10)	20(10)	160(80)
	The final decision for the patient (admission, discharge, etc.)	21(10.5)	45(22.5)	134(62)
	The time spent from nurses' care	20(10)	24(12)	144(72)
	Other ED personnel actions	11(5.5)	16(16)	93(46.5)
Facilities	Existence of needed equipment for patient	21(11.5)	12(6)	139(69.5)
	How providing equipment needed for patient	36(18)	40(20)	72(36)
	How work out equipment as EKG machine	40(20)	-(-)	68(34)
	Appropriate Bed And place for the patient	12(6)	20(10)	164(72)
	Comfortable examination environment	28(14)	13(6.5)	152(76)
Physical environment	Attention to AP complaints	12(6)	40(20)	148(74)
	Number of patients	28(14)	72(36)	100(50)
	Noise and commotion	40(20)	60(30)	100(50)
	Ventilation	28(14)	32(16)	140(70)
	Appropriate Light	2(1)	33(16.5)	165(82.5)
Accountability	Odor	19(9.5)	40(20)	141(71.5)
	The patient's physician	12(6)	24(12)	148(74)
	Follow up of patient's physician	4(2)	19(9.5)	148(74)
	The measures taken by the nurse	4(2)	16(8)	152(62)
	Insurance agent against patient	166(84)	3(1.5)	25(12.5)
Cost	Attention to AP complaints	128(64)	12(6)	48(24)
		32(16)	96(48)	72(36)

**Table No. 3-** The mean results of seven factors of ED characteristics in the total study settings (three hospitals) (No. = 394)

ED characteristics	Dissatisfied ( % )	Neither satisfied nor dissatisfied ( % )	Satisfied ( % )
Information provided	11.55	20.1	68.34
Meaningful communication	2.96	17.36	79.67
Nurses' and staff care	10.57	14.09	75.33
Facilities	16.76	10.40	72.82
physical environment	10.75	23.08	66.16
Accountability	13.26	10.78	75.94
Costs	16	48	36
Total	11.69	20.54	67.75

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