

## Original Article

# Patient Satisfaction with Emergency Departments in Governmental General Hospitals, Kuwait

Saadoun F. Alazmi<sup>‡</sup>, Bashair A. Almutairi

Department of Medical Records, College of Health Sciences, Public Authority for Applied Education and Training, Kuwait

## Abstract

**Background:** Patient satisfaction is one of the essential determinants and indicators of the quality of health care and services delivery. Evaluation of patient satisfaction is considered an emergency department goal.

**Objective:** The objective of the current study was to evaluate patient satisfaction with the emergency department in Kuwait governmental general hospitals.

**Methods:** This cross-sectional study was conducted from January to March 2016 in all governmental general hospitals located in different governorates of Kuwait state. A systematic random sample of patients attending the emergency departments of these hospitals taking every 10<sup>th</sup> patient was selected to participate in the study. The 20-item-satisfaction questionnaire of the Press Ganey Institute was used as a tool for data collection. Totally, 713 patients were enrolled in this study.

**Results:** The data indicated that more than half of the subjects in this study were males (53.7%) and 46.3% were females. The minimum age of subjects was 18 years and the maximum 86 years, with an average value of 37.1±15.3 years. The overall satisfaction with emergency services was 58.4%, although 18.9% were dissatisfied. Items with high level of satisfaction included: Concern the nurse showed for doing medical orders (67.2%), physician's courtesy and behavior with the patients (66.6%), provider's efforts to get the patients involved in making decisions about their own treatment (60.7%), security guards' courtesy (60.3%) and nurses' courtesy with the patients (66.5%). The lowest level of satisfaction refers to the following items: Comfort and pleasantness of the waiting area (48.0%), waiting time for the first visit (46.4%), and overall cleanliness (55.8%). The data indicated that females were significantly more satisfied than males regarding courtesy of staff in the registration area (P=0.028), courtesy of security staff (P=0.001), courtesy of staff who transfer the patients (P=0.014), friendliness/courtesy of the care provider (P=0.019), concern the care provider showed for questions or worries (P=0.006), instructions the care provider gave about follow-up care (P=0.019). On the other hand, overall satisfaction with cleanliness was higher among males (P=0.012).

**Conclusion:** The study findings indicated that giving services to emergency clients was relatively agreeable. However, interventions are needed in some areas such as waiting area, length of waiting before examinations, amount of time physicians spend with patients and frequency of being visited by physicians. Time of visit and gender differences did not have a profound impact on satisfaction level.

**Key words:** patient satisfaction, emergency department, Kuwait

Available on line at:

[www.jhiph.aexu.edu.eg](http://www.jhiph.aexu.edu.eg)

‡Correspondence

Email: [drsaadoun@yahoo.com](mailto:drsaadoun@yahoo.com)

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## INTRODUCTION

In recent decades' patients who attended the Emergency Departments (EDs) in most Kuwaiti governmental general hospitals have been increased. Hospital emergency department becomes under growing pressure to provide emergency care for more patients resulting in longer waiting time and overcrowding of attended patient's due to difficulty of such facilities to get patients through the system (triage) in a timely manner. Thus, some patients may have left without being seen or go to private hospitals. Quality of care as measured by patient satisfaction is

adversely affected by overcrowding. Perceived waiting time in ED is an important determinant of patient satisfaction<sup>(1)</sup> and lengthy waiting times are the greatest source of patient dissatisfaction with an ED visit.<sup>(2)</sup> Improving Communication and information delivery between staff (Physicians, nurses, receptionists) and patients yield greater patient satisfaction.<sup>(3)</sup> Furthermore, physical facilities such as cleanliness, comfort of the waiting area and exam room are also important as revealed in most research studies. Patient satisfaction with ED has been associated with different predictor variables related to patient demographics and visit characteristics Trout et

al.<sup>(1)</sup> and Boudreaux.<sup>(4)</sup> Evaluation of patient satisfaction is an important goal in health care. It is considered to be an indicator of the quality of care and service delivery in the emergency department. Some authors believe that improving work processes and hospital quality are not possible without caring to comments, requirements, expectations, and satisfaction of patient. Patient satisfaction is a key component in choosing an emergency department for receiving services or even for recommending to others.<sup>(1,5)</sup> Thus, patient's satisfaction has increasingly turned to be one of the significant tools in evaluation of hospital performances<sup>(6-8)</sup>, furthermore using the results of satisfaction studies can influence quality of services as indicated in many research studies.<sup>(9)</sup> The objective of this study was to evaluate patient satisfaction with the Emergency Department in all Governmental General Hospitals in the State of Kuwait and to explore the variables affecting satisfaction and dissatisfaction.

## METHODS

The State of Kuwait is divided into five health administrative regions, with each region having a general public hospital, which provides 24-hour emergency services. This study was conducted in all general public hospitals in the state of Kuwait. A cross-sectional study was conducted from January to March 2016, in all governmental general hospitals located in the different governorates of Kuwait state. All participants were emergency department patients who were selected by proportionate allocation from the different hospitals based on the proportion of cases attending EDs during the previous year. They were selected by systematic random sampling taking every 10th patient. The data was collected for two successive days/week from each hospital for 24 hours. The twenty-item satisfaction questionnaire of the Press Ganey Institute, which is being used in most American hospitals with more than 100 beds, was used in this study. There were five options for answering to each question based on Likert scale, which scores five to one, given to answers very good, good, fair (or average), poor, and very poor, respectively. In evaluating each question poor and very poor answers were considered as dissatisfaction while good and very good as satisfaction. The Arabic version of Garney questionnaire in addition, to one question related to patients' assessment of the overall satisfaction was validated by distributing it to emergency department specialists and academic members to confirm its content validity after conducting a pilot study prior to the field work on a small sample of participants (n=25) aiming to test the clarity of the questions, and its suitability for use in Kuwaiti culture. This study

revealed that the questions were valid and reliable (alpha Cronbach =0.83). The questionnaire also included characteristics of patients and their background: name of governorate and hospital, age, gender, nationality, education, occupation, and marital status, time of visit, patient/or accompanied, patient health region, patient condition, the length of staying in ED. Patients were interviewed immediately after getting emergency services either at the time of admission to inpatient wards or before going home. A relative or friend accompanying the patient was asked to answer the questionnaire if patient condition prevented him from talking to the interviewer. Totally, 713 patients were enrolled in this study. Inclusion criteria were age 18 years and over and hospitalization in the emergency department for more than five hours. Exclusion criteria were: significant impairment of cognition (attention, understanding questions, recent memory loss etc.) and having a bad ill appearance, so that patient could not answer the questions. Patients were interviewed by research partners trained on dealing with patients. Patients were asked in calm condition. The literate patients were asked to fill the questionnaire, if not it was read for them in order to answer the questionnaire.

### Statistical analysis

Sample size was determined for opinion survey at 5% level of significance, 80% power and one design factor, 0.05 margin of error and 50% response rate, it was found to be 768. The sample size was calculated according to the equation (10):

$$n = \frac{z^2 * (P * Q) * d * \text{Number of estimate}}{(MOE)^2} / \text{nonresponse rate}$$

where,

z = the critical value (at alpha =0.05) =1.96,

p = 0.5 the maximum proportion for opinion research,

q = (1-p) =0.5,

d = design effect =1 in this study,

Number of estimate =1,

MOE = Margin of error =0.05, and

Nonresponse rate was supposed to be 50%.

Description of qualitative variables was performed by frequency tables and comparison between variables was assessed using Chi-square test. Statistical analysis was done using SPSS version 21. The significant level was considered as p<0.05.

### Ethical considerations

All ethical issues related to research were addressed according to the guidelines of standard and universal research ethical review. All the required approvals for conducting the study were obtained as that of the Kuwait Ministry of Health Ethical Committee. The permissions of the Deputy Ministry of Health in Kuwait as well as manager of each selected hospital were obtained. A written formal consent was prepared and signed by respondents after clarification of the

aim and process of the study. Confidentiality of collected information was ensured. Filled questionnaires were kept in the central office of the researcher.

## RESULTS

Analysis of the data indicated that 713 clients out of the total number of 768 patients referred to the emergency department agreed to participate in the study with a response rate of 92.8%.

Background characteristics of the participants were presented in Table 1. Because some questionnaires were not fully answered by the participants, a small proportion of the data was considered as missing. The data indicated that 50.5% of the participants were patients and 44.6% were their relatives. Also, 26.8%, 48.9% and 12.1% of the interviewees attended the emergency department (ED) in the evening, morning and night shifts, respectively. Only 17.5% of the participants using ED services did not belong to the health region. Most of the subjects were males (53.7%), and 46.3% were females. 29.9% of the patients were living in Ahmadi, 24.3% in Hawalli, 19.2% in Farwaniya, 14.7% in Jahra and 11.9% in Amiri governorates in Kuwait. The minimum age of subjects was 18 years and the maximum 86 years, with an average value of  $37.1 \pm 15.3$  years. Further analysis of the data revealed that in terms of academic background of the interviewees, only 24.7% were either illiterate or had left school before getting their intermediate school. The highest frequently represented group (40.8%) was that with participants holding an above secondary school degree. On the other hand, 34.5% of the subjects had received an education level of a high school diploma. The data also showed that 29.3% & 62.8% of the patients who attended the ED were discharged or hospitalized respectively.

Table 2 shows the patients' satisfaction with emergency services in Kuwait. It was found that 58.4% of the participants showed overall satisfaction, while 18.9% were dissatisfied. Items with high level of satisfaction included: Concern the nurse showed for doing medical orders (67.2%), physicians' courtesy and behavior with the patients (66.6%), providers' efforts to get the patients involved in making decisions about their own treatment (60.7%), security guards' courtesy (60.3%) and nurses' courtesy with the patients (66.5%). The lowest level of satisfaction refers to the following items: Comfort and pleasantness of the waiting area (48.0%), waiting time (WT) before going to an examination (46.4%), and frequency of being visited by physician (49.8%).

Table 3 revealed that once the patients themselves were interviewed, their satisfaction level was 57.2%. On the other hand, their relatives' satisfaction level was 59.0%. Also, 19.6% of patients and 18.2% of their relatives reported dissatisfaction. The difference in different items of satisfaction between the two groups was statically not significant except for courtesy of staff who transferred the patients, where 64.5% of relatives compared to 58.1% among patients were satisfied ( $P=0.047$ ).

**Table 1: Background characteristics of studied patients attending emergency departments in Kuwait**

Background characteristics	Patients (n=713)	
	No.	%
<b>Governorate of residence</b>		
Capital	85	11.9
Hawalli	173	24.3
Farwaniya	137	19.2
Jahra	105	14.7
Ahmadi	213	29.9
<b>Governmental Hospitals Name</b>		
Amiri	84	11.8
Mubarak Alkabeer	162	22.7
Farwaniya	140	19.6
Jahra	101	14.2
Adan	226	31.7
<b>Gender</b>		
Male	383	53.7
Female	330	46.3
<b>Educational status</b>		
Below intermediate	176	24.7
Secondary	246	34.5
Above secondary	291	40.8
<b>Marital status</b>		
Single	219	30.7
Married	410	57.5
Divorced	55	7.7
Widowed	29	4.1
<b>Time of visit</b>		
Morning	349	48.9
Evening	191	26.8
Night	86	12.1
Missing	87	12.2
<b>Who completed the questionnaire</b>		
Patient	360	50.5
Accompanied	318	44.6
Missing	35	4.9
<b>Do you belong to the health region</b>		
Yes	559	78.4
No	125	17.5
Missing	29	4.1
<b>Patient's condition (disposition)</b>		
Admission	448	62.8
Discharge	209	29.3
Missing	56	7.9

**Table 2: Patients' satisfaction with emergency services in Kuwait**

Item	Dissatisfied		Fair		Satisfied	
	No.	%	No.	%	No.	%
Courtesy of staff in the registration area	136	19.1	158	22.2	419	58.8
Comfort and pleasantness of the waiting area	197	27.6	174	24.4	342	48.0
Comfort and pleasantness during examination	130	18.2	166	23.3	417	58.5
Friendliness/courtesy of the nurse	93	13.0	146	20.5	474	66.5
Concern the nurse showed for doing medical orders	98	13.7	136	19.1	479	67.2
Courtesy of security staff	109	15.3	174	24.4	430	60.3
Courtesy of staff who transfer the patients	112	15.7	167	23.4	434	60.9
Length of wait before going to an exam room	199	27.9	183	25.7	331	46.4
Friendliness/courtesy of the care provider	104	14.6	134	18.8	475	66.6
Explanations the care provider gave about the condition	130	18.2	148	20.8	435	61.0
Concern the care provider showed for questions or worries	121	17.0	167	23.4	425	59.6
Provider's efforts to include you in decisions about treatment	120	16.8	160	22.4	433	60.7
Information the care provider gave about medications	114	16.0	168	23.6	431	60.4
Instructions the care provider gave about follow-up care	113	15.8	156	21.9	444	62.3
Degree to which care provider talked with you using words you could understand	108	15.1	167	23.4	438	61.4
Amount of time the care provider spent with you	161	22.6	178	25.0	374	52.5
Frequency of being visited by physician	179	25.1	179	25.1	355	49.8
Overall cheerfulness of practice	156	21.9	157	22.0	400	56.1
Overall cleanliness of practice	167	23.4	148	20.8	398	55.8
Likelihood of recommending the practice to others	160	22.4	165	23.1	388	54.5
Overall satisfaction	135	18.9	162	22.7	416	58.4

Table 4 indicated that the overall satisfaction of females was 59.7% and 57.3% for males. Moreover females were significantly more satisfied than males regarding courtesy of staff in the registration area ( $p=0.028$ ), courtesy of security staff ( $p=0.001$ ), courtesy of staff who transfer the patients ( $p=0.014$ ), friendliness/courtesy of the care providers ( $p=0.019$ ), concern the care providers showed for questions or worries ( $P=0.006$ ), Instructions the care provider gave you about follow-up care ( $p=0.019$ ). On the other hand, overall satisfaction with cleanliness of practice was higher among males ( $p=0.012$ ). The patients' satisfaction with emergency services according to work shifts. The participants' satisfaction with the morning, evening and night shifts were 63.9%, 52.9%

and 54.8% respectively. Their dissatisfaction levels were 15.2%, 22.4% and 20.1% respectively. The overall satisfaction with the morning shift was significantly higher than the other two shifts ( $p=0.06$ ). However, no significant difference was observed for friendliness/courtesy of the care providers ( $p=0.062$ ), concern the care providers showed for questions or worries ( $p=0.101$ ), information the care providers gave about medication ( $p=0.198$ ), instructions the care providers gave about follow-up care ( $P=0.141$ ), degree to which care providers talked with you using words you could understand ( $p=0.438$ ), frequency of being visited by physician ( $p=0.069$ ), overall cleanliness of practice ( $p=0.074$ ) (Table 5).

**Table 3: Patients' satisfaction with emergency services according to interviewed person in Kuwait**

Items		Dissatisfaction	Fair	Satisfaction	p value
		%	%	%	
Courtesy of staff in the registration area	Patient	21.7	22.2	56.1	0.081
	Accompanied	15.1	22.6	62.3	
Comfort and pleasantness of the waiting area	Patient	28.3	25.3	46.4	0.829
	Accompanied	27.0	24.2	48.7	
Comfort and pleasantness during examination	Patient	19.2	22.2	58.6	0.547
	Accompanied	16.7	25.2	58.2	
Friendliness/courtesy of the nurse	Patient	13.1	19.4	67.5	0.605
	Accompanied	11.0	21.7	67.3	
Concern the nurse showed for doing medical orders	Patient	13.1	19.4	67.5	0.993
	Accompanied	12.9	19.2	67.9	
Courtesy of security staff	Patient	16.9	26.1	56.9	0.159
	Accompanied	13.8	22.0	64.2	

Courtesy of staff who transfer the patients	Patient	18.3	23.6	58.1	0.047
	Accompanied	11.6	23.9	64.5	
Length of wait before going to an exam room	Patient	29.4	25.6	45.0	0.494
	Accompanied	25.5	26.1	48.4	
Friendliness/courtesy of the care provider	Patient	16.9	18.6	64.4	0.054
	Accompanied	10.7	18.2	71.1	
Explanations the care provider gave about the condition	Patient	18.6	21.7	59.7	0.698
	Accompanied	17.3	19.8	62.9	
Concern the care provider showed for questions or worries	Patient	18.1	23.3	58.6	0.750
	Accompanied	16.0	23.0	61.0	
Provider's efforts to include you in decisions about treatment	Patient	16.9	21.7	61.4	0.922
	Accompanied	16.7	23.0	60.4	
Information the care provider gave about medications	Patient	15.3	24.7	60.0	0.769
	Accompanied	16.7	22.6	60.7	
Instructions the care provider gave about follow-up care	Patient	15.0	21.4	63.6	0.807
	Accompanied	15.4	23.3	61.3	
Degree to which care provider talked using words you could understand	Patient	15.8	23.9	60.3	0.784
	Accompanied	14.8	22.3	62.9	
Amount of time the care provider spent with you	Patient	23.1	25.0	51.9	0.940
	Accompanied	22.0	25.8	52.2	
Frequency of being visited by physician	Patient	22.2	24.7	53.1	0.142
	Accompanied	28.0	25.8	46.2	
Overall cheerfulness of practice	Patient	21.1	20.8	58.1	0.377
	Accompanied	23.0	24.2	52.8	
Overall cleanliness of practice	Patient	23.3	19.4	57.2	0.510
	Accompanied	23.3	23.0	53.8	
Likelihood of recommending our practice to others	Patient	19.2	25.0	55.8	0.086
	Accompanied	26.1	21.4	52.5	
Overall satisfaction	Patient	19.6	23.2	57.2	0.744
	Accompanied	18.0	22.3	59.7	

**Table 4: Patients' satisfaction with emergency services by gender in Kuwait**

Items	Gender	Dissatisfaction	Fair	Satisfaction	p value
		%	%	%	
Courtesy of staff in the registration area	M	22.7	21.4	55.9	0.028
	F	14.8	23.0	62.1	
Comfort and pleasantness of the waiting area	M	28.5	20.9	50.7	0.059
	F	26.7	28.5	44.8	
Comfort and pleasantness during examination	M	20.4	21.9	57.7	0.247
	F	15.8	24.8	59.4	
Friendliness/courtesy of the nurse	M	14.6	19.6	65.8	0.375
	F	11.2	21.5	67.3	
Concern the nurse showed for doing medical orders	M	15.7	18.5	65.8	0.275
	F	11.5	19.7	68.8	
Courtesy of security staff	M	19.1	26.6	54.3	0.001
	F	10.9	21.8	67.3	
Courtesy of staff who transfer the patients	M	18.5	25.3	56.1	0.014
	F	12.4	21.2	66.4	
Length of wait before going to an exam room	M	27.7	25.8	46.5	0.986
	F	28.2	25.5	46.4	
Friendliness/courtesy of the care provider	M	17.8	19.6	62.7	0.019
	F	10.9	17.9	71.2	
Explanations the care provider gave about the condition	M	21.4	19.3	59.3	0.055
	F	14.5	22.4	63.0	
Concern the care provider showed for questions or worries	M	21.1	22.5	56.4	0.006
	F	12.1	24.5	63.3	
Provider's efforts to include you in decisions about treatment	M	18.5	23.2	58.2	0.283
	F	14.8	21.5	63.6	
Information the care provider gave about medications	M	18.0	24.8	57.2	0.127
	F	13.6	22.1	64.2	
Instructions the care provider gave about follow-up care	M	19.1	19.3	61.6	0.019
	F	12.1	24.8	63.0	

Degree to which care provider talked using words you could understand	M	17.2	22.5	60.3	0.238
	F	12.7	24.5	62.7	
Amount of time the care provider spent with you	M	24.8	24.5	50.7	0.304
	F	20.0	25.5	54.5	
Frequency of being visited by physician	M	25.8	23.2	50.9	0.463
	F	24.2	27.3	48.5	
Overall cheerfulness of practice	M	21.4	20.6	58.0	0.516
	F	22.4	23.6	53.9	
Overall cleanliness of practice	M	22.7	17.0	60.3	0.012
	F	24.2	25.2	50.6	
Likelihood of recommending our practice to others	M	23.0	21.4	55.6	0.498
	F	21.8	25.2	53.0	
Overall satisfaction	M	19.5	22.3	58.3	0.591
	(383)				
	F (330)				

**Table 5: Patients' satisfaction with emergency services by work shift in Kuwait**

Items		Morning	Evening	Night	p value
		%	%	%	
Courtesy of staff in the registration area	Dissatisfaction	16.0	24.1	19.8	0.012
	Satisfaction	65.0	49.2	59.3	
Comfort and pleasantness of the waiting area	Dissatisfaction	22.1	34.6	26.7	0.001
	Satisfaction	55.9	39.3	39.5	
Comfort and pleasantness during examination	Dissatisfaction	14.9	20.9	18.6	0.000
	Satisfaction	67.0	51.3	47.7	
Friendliness/courtesy of the nurse	Dissatisfaction	10.9	15.7	11.6	0.007
	Satisfaction	73.6	59.2	62.8	
Concern the nurse showed for doing medical orders	Dissatisfaction	10.0	19.9	12.8	0.001
	Satisfaction	74.2	57.6	64.0	
Courtesy of security staff	Dissatisfaction	10.9	18.3	20.9	0.001
	Satisfaction	67.6	54.5	46.5	
Courtesy of staff who transfer the patients	Dissatisfaction	10.3	20.4	18.6	0.000
	Satisfaction	69.6	54.5	50.0	
Length of wait before going to an exam room	Dissatisfaction	21.2	36.6	27.9	0.000
	Satisfaction	55.6	39.3	38.4	
Friendliness/courtesy of the care provider	Dissatisfaction	12.0	18.3	12.8	0.062
	Satisfaction	71.1	58.6	66.3	
Explanations the care provider gave about the condition	Dissatisfaction	14.3	17.3	25.6	0.047
	Satisfaction	65.6	57.1	57.0	
Concern the care provider showed for questions or worries	Dissatisfaction	13.5	17.8	18.6	0.101
	Satisfaction	65.0	53.9	54.7	
Provider's efforts to include you in decisions about treatment	Dissatisfaction	14.3	18.3	19.8	0.009
	Satisfaction	67.6	52.9	55.8	
Information the care provider gave about medications	Dissatisfaction	14.0	15.7	17.4	0.198
	Satisfaction	64.8	55.0	59.3	
Instructions the care provider gave about follow-up care	Dissatisfaction	14.6	15.7	18.6	0.141
	Satisfaction	66.8	57.1	60.5	
Degree to which care provider talked using words you could understand	Dissatisfaction	12.9	16.8	14.0	0.438
	Satisfaction	65.6	57.6	60.5	
Amount of time the care provider spent with you	Dissatisfaction	18.1	26.2	23.3	0.047
	Satisfaction	58.7	45.5	50.0	
Frequency of being visited by physician	Dissatisfaction	20.6	28.8	26.7	0.069
	Satisfaction	56.2	44.0	46.5	
Overall cheerfulness of practice	Dissatisfaction	17.2	28.3	22.1	0.012
	Satisfaction	62.5	50.8	50.0	
Overall cleanliness of practice	Dissatisfaction	18.6	26.7	25.6	0.074
	Satisfaction	62.5	51.3	51.2	
Likelihood of recommending our practice to others	Dissatisfaction	17.5	27.7	19.8	0.012
	Satisfaction	60.2	51.3	47.7	
Overall satisfaction	Dissatisfaction	15.2	22.4	20.1	0.046
	Satisfaction	63.9	52.9	54.8	

## DISCUSSION

Patient satisfaction is commonly used as an important indicator for the quality of the emergency department services.<sup>(1)</sup> The emergency department is a unique medical service compared with other medical department services, therefore understanding of the factors affecting patient satisfaction in such department is very important and essential. Evaluation of patient satisfaction has become a requirement in some private health care facilities and became a key role for health care providers.<sup>(11)</sup> The result of this study, is consistent with other studies, in which the general satisfaction of patients is relatively high, although there are many unmet needs.<sup>(12)</sup> The overall satisfaction of patients who attended the emergency departments in the studied general public hospitals was 58.4%, although 18.9% were dissatisfied. In the present study the satisfaction with the waiting time before going to an exam room was only 46.4%, satisfaction with comfort and pleasantness of the waiting area was 48.0% and frequency of being visited by physician 49.8%. Compared with similar studies, the waiting time and comfort and pleasantness of the waiting area in this study was slightly higher. On the other hand, items with prominent level of satisfaction included: physicians' courtesy with patients (66.6%), security guards' courtesy and respect (60.3%) and nurses' respectful behavior with patients (66.5%), concern the nurse showed for doing medical orders (67.2%), instructions the care provider gave about follow-up care (62.3%), courtesy of staff who transfer the patients (60.9%). The main factors that influenced patient satisfaction seem to be the waiting time and staff courtesy. Aragon's studies revealed that overall service satisfaction is a function of client satisfaction with the doctor, with the waiting time and with nursing service, hierarchically relating to the patients' perception that the doctor provides the clinical value, followed by time spent waiting for the doctor and then satisfaction with the nursing care.<sup>(13)</sup> In another study in Turkey, length of waiting time in EDs was the most important reason for dissatisfaction of patients.<sup>(14)</sup> This study also demonstrated that overall cleanliness of their practice was 55.8%, a similar study also demonstrated that there was a high dissatisfaction rate with the cleanliness.<sup>(15)</sup> Like other studies, the findings of this study also showed that waiting time and the physical environment of the EDs are among the factors causing much dissatisfaction and that they can be reduced by setting up a good triage system and trying to create a neat environment. The literature indicates that the comfort of the waiting room and cleanliness of the ED environment are also important patient satisfaction factors in the US. Those who rated the waiting room as "dissatisfied" in comfort had dramatically lower overall satisfaction with their visit

than those who rated the comfort of the waiting room as "satisfied".<sup>(16)</sup>

In our study satisfaction related to concern the nurse showed for doing medical orders was 67.2%, which is lower than what was reported in another study conducted in Iran, where the satisfaction rate was 78.6% with medical and nursing care.<sup>(17)</sup> Our study findings demonstrated that a high satisfaction rate can be achieved by courtesy of staff in the registration area, friendliness/courtesy of the nurse, courtesy of security staff, courtesy of staff who transfer the patients, friendliness/courtesy of the care provider, information the care provider gave about medications, instructions the care provider gave about follow-up care. Similarly, other study findings revealed that a high satisfaction rate can be achieved by courtesy and respect shown to the clients by the staff.<sup>(17)</sup>

This study also revealed that acceptable satisfaction rates for explanations the care provider gave patients about the condition (61.0%), information the care provider gave patients about medications (60.4%), instructions the care provider gave patients about follow-up care (62.3%) and degree to which care provider talked with patients using words patients could understand (61.4%). The Taylor's study in Australia showed that, staff orientation with an educational film and workshop on how to communicate effectively with patients and having a nurse to explain the diagnostic and treatment processes to patients improved the patient's satisfaction levels.<sup>(18)</sup>

Regarding work shifts, subjects' satisfaction with the morning, evening and night shifts were 63.9%, 52.9% and 54.8 respectively. The overall satisfaction rate with the morning shift was more than that for the other shifts despite being the most crowded work shift. The study of Pines et al. about the effect of ED crowding on patient satisfaction revealed an indirect effect of crowding on satisfaction.<sup>(19)</sup> Also, Weiss et al. showed significant relationship between the ED overcrowding and the number of patients who leave ED without being seen as one of the probable indicators of patient satisfaction.<sup>(20)</sup> The interesting findings of the present study could be explained by the high number of ED staff in the morning shift. In this study, there was a statistically significant difference between the different shifts, except for friendliness/courtesy of the care provider, concern the care provider showed for questions or worries, information the care provider gave about medications, instructions the care provider gave about follow-up care, degree to which care provider talked with you using words you could understand, frequency of being visited by physician, overall cleanliness of practice. Patients who arrived in the emergency department in the morning reported higher satisfaction than those

who arrived in the evening or night, In the Press Graney report the highest satisfaction with the emergency department was recorded in the morning hours.<sup>(11)</sup> Staffing patterns, patient volume and severity of the patient conditions may play a large part in these differences in satisfaction. In the night hours, waiting times may be on the rise as patient volumes have increased during the day. The data indicated that the overall satisfaction was 59.7% for females and 57.3% for males, moreover females were significantly more satisfied than male regarding courtesy of staff in the registration area, courtesy of security staff, courtesy of staff who transfer the patients, friendliness/courtesy of the care provider, concern the care provider showed for questions or worries, instructions the care provider gave about follow-up care. On the other hand, satisfaction with overall cheerfulness of practice was higher among males. The study conducted by Hall and Press (1996) in the US showed that gender does not have a profound impact on satisfaction level.<sup>(16)</sup> Aragon's study revealed similar results; overall satisfaction was equal despite gender.<sup>(21)</sup> This research study demonstrated that patient gender did not crucially influence ED patient satisfaction which was consistent with other studies.

## CONCLUSIONS & RECOMMENDATIONS

The findings of this study revealed that giving services to emergency clients in various areas such as physical comfort, physicians care, nurse care, and the overall Emergency Department Satisfaction were relatively agreeable. However, interventions are needed in different areas such as waiting area, length of waiting before examinations, amount of time physician spend with patients and frequency of being visited by doctor.

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