Patients' Satisfaction at Emergency Departments in Baghdad Teaching Hospitals

Ayad Majid Mousa*

(Assistant Lecturer, University of Baghdad / College of Nursing)
Ayadmajid[at]yahoo.com

Abstract: _Introduction: providing high quality services in emergency department promotes patient satisfaction (PS) that depends on patients perception which is considered pointer for quality measurement this study has aim to assess patients satisfaction in emergency department (ED) in a sample of Baghdad teaching hospitals. Methods: Descriptive analytic design study using questionnaire to collect required data by self-report method. The current study used Valid and reliable Brief Emergency Department Patient Satisfaction Scale (BEPSS) in a sample 114 patients selected by non-probability (purposive sample) based on including criteria and Excluding criteria Descriptive Data and Inferential data analysis were done by statistical package for social sciences (SPSS) version 20 and p value ≤ 0.05 considered significant. Results: 114 participants were involved in this study where their mean age was 36.12 years old. Total satisfaction assessment was fair with mean score (3.15). Poor level revealed for following items the environment of the emergency room was calm and quiet, Emergency room was well equipped, the environment of the emergency room was hygienic, the physician spent a sufficient time examining me, and the waiting time before seeing the doctor was appropriate with mean scores respectively as follows: (2.85, 2.94 2.91, 2.88 , and 2.95).significant relationships found between overall satisfaction assessment scores and some demographic variables (marital status, residence, and time of entry to emergency department) at p value ≤ 0.05. Conclusion: fair satisfaction level has been detected in this study regarding overall assessment. To improve satisfaction of patients, Efforts should be done toward improving all fields studied at this study and more specifically focus toward calmness and quietness, hygienic issues, time of exam for patients by physicians, and shortening waiting time at emergency department to raise PS and improve quality of services at ED._

Keywords: patients, satisfaction, emergency department, Baghdad city

1. Introduction

Patients with urgent status that they are seen firstly by ED that is considered as first therapeutic unit in hospital for treating patients (**1**).To obtain guaranteed quality for services presented in emergency departments, PS assessment can be conducted to assure quality of care thus researcher should be encouraged to do updated tools for measuring and comprehending PS in emergency department. Moreover, satisfaction evaluation serves as a tool for managers of hospitals to evaluate quality provided (**2**). Satisfaction level can be raised through promoting factors such as increased self-esteem for patients, giving information about treatment for clients, staff attitude, improving physical environment, reducing waiting time, and good communication skills. We cannot satisfy all patients most of time but we can raise satisfaction level for our patients if we do on measures that satisfy many patients (**3-4**).Iraq has an estimated population of 36.3 million until 2015, which ranks 38th in the world. The capital is considered the largest city in Iraq is Baghdad. It has a population of 9 million; this shows that nearly 25% of Iraqi people live in one city. Thereby, Baghdad is second as compared to Arab countries after Cairo and the second-largest city in Western Asia behind Tehran (5). Baghdad is distributed into 14 districts, divided into Risafa and Karkh sides. Imam Ali hospital receives roughly 19080 patients at ED per month according to latest statistics in February 2016,regarding Alkindy Teaching hospital receives 15134 clients at ED per month, both above-mentioned hospitals located on Risafa side of Baghdad. While Al-Karama teaching hospital which locates on Karkh side of Capital received 6216 patients per month. (**6-7**) in summary, providing high quality services in emergency department will improve PS that depends on patients perception which is considered pointer for quality

measurement (**8**).This study has aims to assess PS in emergency department and find out association between satisfaction with demographic characteristics in a sample of Baghdad teaching hospitals.

2. Methodology

Descriptive analytic design study was conducted using questionnaire to collect required data. The study started from April 2nd 2016 until 28th November 2016. An official request was submitted to seek permission for data collection of the current study. Three hospitals selected by convenient method which are Imam Ali hospital, Alkindy Teaching hospital which are located on Risafa side of Baghdad ,and Al-Karama Teaching hospital which locates on Karkh side of Capital.

The objective for the present study was to assess patient satisfaction at emergency department and for this purpose. Valid and reliable Brief Emergency Department Patient Satisfaction Scale (BEPSS) (9) has been used which consist of five domains Emergency department staff (EDS 6 items), Emergency department environment (EDE 3 items), Physician care satisfaction (PCS 4 items), General patient satisfaction (GPS 5 items),and Patient's family satisfaction (PFS 2 items) since totally scale comprises twenty items where reliability of scale proven through using internal consistency aspect where Cronbach Alpha for each domain was respectively as follows (0.88, 0.75, 0.87, 0.84, 0.87). The current study used BEPSS in a sample 114 patients selected by non-probability (purposive sample) based on including criteria including patient age 18 years and over. Excluding criteria include patients younger than 18 years, unconscious patients, head injury, dying cases, and critical cases like Road traffic accident. The questionnaire comprises two parts first part consist of

demographic characteristics (gender, age, marital status, educational level, employment, living, time of entrance to ED, patient status after treatment at ED, and Previous admission for this hospital. To confirm validity and reliability of used questionnaire, the English questionnaire translated to Arabic language then offered to panel of experts (10 experts) to verify content validity of scale and clarity and understanding of items. Pilot study had been conducted on 25 patients before data collections on participants admitted to ED of Imam Ali hospital and these twenty-five samples excluded from original sample. The purposes of pilot study are to know clarity and understanding of items to the participants, time required to complete questionnaire and to prove reliability of scale. Outcomes of pilot study were regarding Time required to fill questionnaire is from 10-12 minutes, questionnaire items were fully understood and clear, and Cronbach alpha was used to investigate internal consistency of questionnaire items which was (0.91) for 20 items. Regarding answering the items of questionnaire likert scale used and scored from one to four (1 = completely disagree, 2 = mildly disagree, 3 = mildly agree, 4 = completely agree)\. Data were collected by self-report method for patients who are able to read and write. Regarding patients are not capable or read, researcher use interview method by reading question and read options then select answer that is selected by patient to prevent bias; researcher only read question and participant answer it.

Descriptive Data analysis was through frequency, and percentage, mean and standard deviation. Inferential data analysis were by contingency coefficient test to measure association between variables and significance level ≤ 0.05 considered statistically significant through applying by statistical package for social sciences (spss) version 20.

3. Results

Table (1) shows descriptive analysis of demographic characteristics for studied sample Totally, 114 participants participated in this study, more than half of studied sample (57.0%) of studied sample was males high percentage (36.8 %) of them was within age category (18-27) years. regarding marital status, nearly one third (33.3 %) of them which high percentage presented was single. Concerning educational level (percentage of institute, college and above group) was the dominant and has high percentage for studied sample. Studied sample showed free job had the highest percent among other categories within occupation variable. The vast majority of current sample of the study were within urban living areas. The most participants of the present study were admitted to ED at morning (86.0 %). After treatment in ED, roughly two thirds (67.5%) of subjects of the study discharged to home. the vast majority (61.4%) of the respondents of the study reported visited the hospital as previous admission.

Regarding measurement of patients' satisfaction all items included in **EDS** domain revealed fair level within mean of score (3.1-3.5), moreover overall assessment was fair. EDE domain showed poor level with mean of score (2.90) and items for this domain had mean of score as follows

(2.85, 2.94, 2.91, 2.90) respectively. Results of this study illustrate that all items of PCS were within fair level unless item "The physician spent a sufficient time examining me" showed poor level with mean of score (2.88) also the study revealed overall assessment for above-mentioned domain was fair with mean of score (3.15).related to domain called GPS where the first for this domain was item "The waiting time before seeing the doctor was appropriate" which shows poor level with mean of score (2.95) ;while other items illustrate fair level. PFS illustrated fair level with mean score (3.21) Overall assessment of patients' satisfaction for the current study questionnaire was fair with mean of score (3.15) (Table 2).

(Table 3) revealed significant relationships between overall satisfaction scores and demographic variables (marital status, Residence, and Time of entrance to ED) at p value ≤ 0.05, while no significant association found between overall satisfaction scores of the study participants and following demographic variables (Gender, Age groups, Educational level, Occupation, Patient status after treatment at ED, and Previous admission for this hospital) at p value ≤ 0.05.

Table 1: descriptive analysis of demographic characteristics for studied sample

Variables	Groups	F.*	%
1. Gender	Male	65	57.0
	Female	49	43.0
	Total	114	100.0
2. Age groups	18-27	42	36.8
	28-37	32	28.1
	38-47	14	12.3
	48-57	15	13.2
	≥ 58	11	9.6
	Total	114	100.0
Mean and SD =36.12 ±14.94			
3. Marital status	Single	38	33.3
	Married	64	56.1
	Divorced	3	2.6
	Separated	2	1.8
	Widow	6	5.3
	Missing	1	0.9
	Total	114	100.0
4. Educational level	Illiterate	19	16.7
	Read and write	17	14.9
	Primary	16	14.0
	Intermediate	22	19.3
	Secondary	18	15.8
	Institute, College and above	22	19.3
	Total	114	100.0
5. Employment	Government	19	16.7
	Free job	41	36.0
	No Job	13	11.4
	Housewife	29	25.4
	Retired	9	7.9
	Missing	3	2.6
	Total	114	100.0
Living	urban living	101	88.6
	Rural living	11	9.6
	Missing	2	1.8
	Total	114	100.0
Time of entrance to ED	Morning	98	86.0
	Evening	15	13.2

	Night	------	--------
	Missing	1	0.9
	Total	114	100.0
Patient status after treatment at ED	To home	77	67.5
	Referred to be admitted into hospital	21	18.4
	Consultation unit	14	12.3
	Missing	2	1.8
	Total	114	100.0
Previous admission for this hospital	Yes	44	38.6
	No	70	61.4
	Total	114	100.0

F= frequency %=percentage

Table 2: Descriptive analysis regarding studied sample's satisfaction responses

Questionnaire items	M.S.*	S.D.	Level
Emergency department staff (EDS) domain			
1. Nurses care about my treatment	3.57	0.638	Fair
2. Nurses inform me about the remaining of the treatment	3.38	0.774	Fair
3. Nurses attended to me patiently	3.24	0.827	Fair
4. Nurses relieved me of the pain well	3.10	0.798	Fair
5. Admission staff guided me appropriately	3.46	0.695	Fair
6. The behavior of the admission staff was suitable	3.46	0.670	Fair
Overall domain assessment	**3.36**	0.733	Fair
Emergency department environment (EDE) domain			
7. The environment of the emergency room was calm and quiet	2.85	1.123	Poor
8. Emergency room was well equipped	2.94	1.016	Poor
9. The environment of the emergency room was hygienic	2.91	1.098	Poor
Overall domain assessment	2.90	1.079	Poor
Physician care satisfaction (PCS) domain			
10. The physician told me about my treatment course	3.21	.895	Fair
11. The behavior of the physician was respectful	3.40	.620	Fair
12. The physician's explanation about the remaining of treatment was enough	3.11	.939	Fair
13. The physician spent a sufficient time examining me	2.88	1.155	Poor
Overall domain assessment	3.15	0.902	Fair
General patient satisfaction (GPS) domain			
14. The waiting time before seeing the doctor was appropriate	2.95	1.016	Poor
15. The waiting time before admission process was appropriate	3.23	.820	Fair
16. I would recommend this hospital to my acquaintances	3.20	.815	Fair
17. I am satisfied with the quality of services in the emergency room	3.18	.865	Fair
18. The emergency room of this hospital is well functioning	3.27	.779	Fair
Overall domain assessment	3.16	0.859	Fair
Patient's family satisfaction (PFS) domain			
19. The family of the patient are respected in this hospital	3.32	.744	Fair
20. Family can spend an appropriate amount of time besides the patient	3.10	.862	Fair
Overall domain assessment	3.21	0.803	Fair
Overall questionnaire assessment	3.15	0.875	Fair

M.S. = mean of score, SD = standard deviation

Table 3: Contingency coefficient test for association between overall satisfaction sores of studied samples and demographic variables

Demographic variables	Contingency coefficient	Significance level
Gender	.074	.427 (NS)
Age groups	.162	.544 (NS)
Marital status	.445	.000 (S)
Educational level	.225	.296 (NS)
Occupation	.062	.980 (NS)
Residence	.231	.012 (S)
Time of entrance to ED	.285	.002 (S)
Patient status after treatment at ED	.136	.351 (NS)
Previous admission for this hospital	.154	.097 (NS)

4. Discussion

Providing high quality services in emergency department improve patient satisfaction that depends on patients' perception which is considered pointer for quality measurement (8). On one hand, Concept of satisfaction has beneficial effect by which administrators and all working staffs can develop their service that is built on patient comments whose evaluation by satisfaction assessment tools can be achieved (10). On other hand, these patients' perceptions or comments can be impacted by expectation factor, where maybe patient with high level of expectation high quality services and they will not satisfy toward services that are out of what they think and low expected clients have low expectations so they can be satisfied by merely good communication skills although services were ineffective. This means matching between patient expectation and care provided is challenging factor at emergency unit. (11).

Our findings show the satisfaction of patients as general is fair, this is in agreement with study conducted at ED of Rasht Poursina Hospital in Iran that finds total satisfaction of studied sample was average (12) while our finding is inconsistent with other results obtained from following studies (1,13).

Regarding patients' satisfaction toward EDS, our study finding reveals that studied sample reported fail level toward nurses working in ED. this disagrees with result obtained from study conducted by (Eshghi Maryam et al.) (14) Who detected good level on nurse domain in their scale in terms of Nursing care, Nursing knowledge & practice, Nursing behavior, and Nurse's interest to work items.

Concerning patients' satisfaction toward EDE domain, the present study illustrate poor level, specifically regarding quietness and calmness item in this domain shows pool level, this may be caused by crowdedness of space specifically at evening and room space is very small and inefficient .This finding in disagreement with results (12, 14) that found good grade regarding physical space of emergency department. Similar results obtained rom study conducted in Malaysia (15) to assess patients satisfaction on quality presented in emergency department where 52.8% dissatisfied regarding hygienic environment in terms hand hygiene available for patients and visitors to use to clean their hands after usage of toilet or handling of specimen such as urine. Studied subjects (27.5%) showed dissatisfaction related to equipment use in emergency.

With respect to PCS domain the study, all items show fair level unless "The physician spent a sufficient time examining me" item was poor. This can be dependent on Patient perception and experience level that they have it to interpret doctor behavior where some patient cannot be concise to estimate sufficient time to examine them, in addition to maybe less number of doctor present each shift lead to less time consumed with client.

Concerning to The waiting time, in our study we do not objectively measure what exactly minutes consumed before seeing the doctor but subjectively waiting time has been measured where finding for it was poor, this means that studied sample has dissatisfaction regarding longer waiting time, this finding supported by Mohamed Hind Abdulla et al(16) who studied relationship efficiency of care and satisfaction of patients at emergency unit in Mansoura Emergency Hospital where they concluded there was association between waiting time and satisfaction level ;in other words patients those who are waiting longer become less satisfied toward care provided. Likewise our finding results from other studies found that longer waiting time had poor satisfaction for emergency department patients (11-12, 16).

Like other studies our study reveals no significant association between overall satisfaction level and gender, age variables (1, 17).Our finding regarding relationship between educational level and overall satisfaction was statistically non-significant. This result agrees with following study that reported significant association with

satisfaction (11) and disagree with results from studies (15,17).Our findings explore significant relationship between residence and overall satisfaction level assessment ,this can be attributed that patients who are near from hospitals specifically urban people will be more satisfied that others. Another result obtained in this study that time of admission to ED has significant association with overall patients' satisfaction; this is totally agreed with result obtained by Zohrevandi Behzad and Tajik Hosna (11) who did study to assess satisfaction of patients at emergency department in Rasht Poursina hospital in Iran. Limitations of the current study are first, the setting of the study used by convenient sample method this due to some security issues in Baghdad city this mean only three hospitals included in this study, more hospital are out of our survey. Second, the sample of the study was small so the outcomes of the current study cannot be generalized to all hospitals in Baghdad city. Third, The most times investigator spent to collect data were during morning, and evening, thereby participants who admitted at night hours did not have chance to participate thereby, this may be have effect on results of the study. Finally data collection done by self-reported method but, for these cannot read and write the interviewer filled the questionnaire by reading items and participants answered question so, potential bias may be occurred.

5. Conclusions

According to results of the study, overall assessment of satisfaction at emergency department for the studied sample was fair. Most of items of questionnaire showed fair satisfaction level that is considered unacceptable while, resting items of questionnaire illustrates poor level of the satisfaction which arethe environment of the emergency room was calm and quiet, Emergency room was well equipped, and the environment of the emergency room was hygienic. Significant statistical association has been detected in the current survey between patients satisfaction and demographic variables (marital status, residence, and time of entry to emergency department) at p value $\leq$ 0.05. On other hand no significant relationship found with other demographic variables. To improve satisfaction of patients at emergency department, Efforts should be done toward improving all fields studied at this study and more specifically focus toward calmness and quietness, hygienic issues, spent time of exam for patients by physician, and shortening waiting time at emergency department to raise PS and improve quality of services at ED.

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Conflict of Interest

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None

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