



# Patients' satisfaction towards medical services at the emergency department of European Gaza Hospital-Gaza Strip

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## Abstract

**Objective:** Patients' satisfaction (PS) is recognized as an important emergency department service design and it has received a high interest and attention in the health management where many studies have focused on determining factors affecting PS in health-related circumstances. In this study, we aimed to examine PS in emergency department (ED) of the European Gaza Hospital (EGH) in the Gaza Strip (GS).

**Methods:** A descriptive-analytical cross sectional study was performed at ED-EGH between March, 15 and June 20, 2015. Press Ganey questionnaire was used as a tool for data collection. For each patient, a self-administered questionnaire including 22 questions was filled based on a Likert scale. Results were analyzed using SPSS version 22.

**Results:** Overall, 200 respondents were included in the study. About 73% of respondents were satisfied with overall medical services. The term of nurses' concern provided to patients elicited the highest score (83.1%), followed by physicians' concern with patients (72.0%) and communication skills with patients (71.4%), while the lowest score was reported in waiting time and security staff. Furthermore, our findings show an association between PS and level of education, gender differences, living area, and work shifts.

**Conclusion:** The study results conclude that areas of medical and nursing care, respects of staff, physical comfort and waiting time ED-EGH is highly acceptable and offer in appropriate manners.

**Keywords:** Patients' Satisfaction, Emergency care, Emergency department, European Gaza Hospital

## Introduction

Quality of health care is a worldwide concern that is experiencing a quick revolution to meet needs and demands of the patients. Hospitals are changing their perception of patients as illiterate, with little or no selected health care; to educated ones with many service requests and health care options available (1). Therefore, respecting the requirements of patients is vital for any health care system. Traditionally, quality of care services is based on professional standards of practice, but in the past decade; it is based on the patient who is an important indicator to measure care services in order to improve performance and effectiveness of clinical perception (2).

PS is an important principle for assessing quality of health care services (3) and it is a current concern in health care management. It has been recognized as a personal assessment of services received against expectations

during care (4). In an emergency department (ED), patients' satisfaction (PS) is recognized as an important health care indicator of quality health system, but it is difficult to measure it not only because of the clinical care but also non-clinical care outcomes such as patient expectations about services (5,6). The patient expectations of the services provided to him in the ED are different from the services provided in any hospital departments. This is closely related to emergency medicine, because changes in health care policy and the availability of a physician have been overwhelmed by ED with a patient load that often exceeds their capacity. With increasing waiting periods for accessing emergency services, it is likely that PS presumably suffers. Physicians and health care managers have become increasingly concerned with the patient to meet rapid care and quality expectations. Patients' judgments of the quality of health care services are



important factors regarding monitoring and promotion (7).

PS is assessed based on a wide range of scopes; as well as availability, accessibility suitability, technical competence of health care providers, interpersonal skills, and the physical environment in which services are provided (8,9). Demographic and clinical characteristics of the patient are also associated with the degree of satisfaction more than the technical quality of care provided (10).

In Palestine, providing a high quality of health services is one of the priorities of the Ministry of Health and one of the Health Sector Strategic Plan for improving the delivery of healthcare services. In this regard, policy-makers need to understand the patient and the institution characteristics as factors that determine health care satisfaction (11). In spite of numerous published studies concerning PS with health services provided in hospitals (12,13), but based on our knowledge, few studies have been conducted to assess PS in the ED. The European Gaza Hospital (EGH) is the second largest hospital in Southern Gaza Strip (GS) and one of the famous teaching hospitals intended to provide high quality of care. Despite importance of PS in the field of scientific research in general and especially in the health fields, the satisfaction is still incomplete. Therefore, this study aimed to evaluate the satisfaction of patients receiving health care services in the ED at EGH in the GS.

## Methods

This descriptive-analytical cross sectional study was designed to examine PS in the ED of EGH. Two-hundred patients, aging over 12 years, treated in the ED between March 15, 2014 and June 20, 2015, were approached to be an element in the sample. The response rate was very high (98%) and data were obtained from 200 patients. All patients were informed about the study purpose and procedures. Informed consent was obtained as well. The researcher informed participants about the research purpose and the confidentiality of information was quarantined. In addition, patients were informed about their rights to withdraw or to refuse participation. Completion of each questionnaire took about 20 minutes on average. Furthermore, administrative approval was obtained from General Director of the European Gaza Hospital.

The researcher used the Press Ganey Institute satisfaction questionnaire (14) for evaluating patient satisfaction in the ED with modification of some items due to the Palestine's situation. There was five options for answering to each question based on Likert scale ranging from 1 (very poor) to 5 (very good) (15).

Data were analyzed using SPSS software version 22. For continuous variables, we used mean and standard deviation. The score of patients' overall satisfaction was considered as the primary outcomes of this study. A chi-squared test was used to determine the association between the variables examined. A regression analysis was

used to identify factors affecting PS. A *P* value less than 0.05 was considered significant.

## Results

About 51.5% of the patients were younger than 30 years, and 28.0% were between 30-50 years. Approximately, 53% of patients were male, and 47.0% were female. The results also indicated that 30% of the 200 participants in the study had a tertiary education level. This means that the majority of the study group is educated. Moreover, findings revealed that 39.5% of the patients had arrived in the morning shift. Only 24.5% of participants had visited the ED for receiving services for the first time. Almost 78% of the patients were discharged from the ED. Nearly 72% of the patients visited ED for mild medical reasons, where only 6% visited ED for emergency situations. Thirty-five percent of the 200 participants in the study who filling the questionnaire are patients. Most of attendance to ED

**Table 1.** The demographic, socio economic and health characteristics of patients (n = 200)

Variables	No.	Percent
Gender		
Male	106	53.0
Female	94	47.0
Age group (y)		
Less and equal 30 years	103	51.5
31- 50 years	56	28.0
More than 50 years	41	25.5
Educational level		
Primary and less	41	20.5
Secondary	45	22.5
Tertiary	60	30.0
University	54	27.0
Time visit		
Morning	79	39.5
Evening	75	37.5
Night	23	23.0
Patient first visit here		
Yes	49	24.5
No	151	75.51
Reason for visit		
Medical	95	47.0
Surgical	36	18.5
Orthopedic	69	34.5
Illness severity		
Mild	144	72.0
Moderate	44	22.0
Sever	12	6.0
Who completed the questionnaire		
Patient	70	35.0
Another one	130	65.0
Living area		
Rafah	86	43.0
Bani-Suhila	114	57.0
Patient's disposition		
Discharge	156	78.0
Admission	44	22.0

living in Bani-Suhila area which account 57%. Table 1 summarizes the demographics of the respondents.

Despite insignificant differences between the 2 groups ( $P=0.278$ ), results showed that seventy three percent of participants were satisfied with the overall care provided in the ED compared to 17% who were dissatisfied. A high level of satisfaction was observed for these items: care providers genuine interest (87.5%), friendliness/courtesy of the nurse (83.3%), efficiency of triage system (78.5%) and friendliness/courtesy of the physician (74.0%). Furthermore, the highest satisfaction rates were observed in the domain of nurses' concern with patients (83.1%), while physicians' concern with patients and communication skills with patients were 72% and 71.4% respectively (Table 2).

Satisfaction of patients with the morning shift was the highest in comparison with evening and night shifts (74.3%, 71.8% and 73.1%, respectively). Although the overall dissatisfaction rate for the evening shift was less than that for other shifts, there was no significant statistical difference among the different shifts.

About 76.6%, 69.9%, 75.9%, 71.6% and 73.1% of the study participants were illiterate, primary, secondary, tertiary, and university level, respectively. Dissatisfaction levels among them were 14.2%, 21.0%, 14.9%, 19.3% and 16.6%, respectively. Advanced analysis revealed that participants with primary education levels were more dissatisfied

( $P=0.026$ ) in comparison with other groups.

In regard to the severity of the patient conditions, their satisfaction with the mild, moderate and severe pain were 73.5%, 72.6% and 71.0%, respectively. Their dissatisfaction levels were 17.4%, 18.2% and 19.8%, respectively.

Although the dissatisfaction rate among males was slightly decreased that for females, there was significant statistical difference among the different gender. This difference was favor for females.

Table 3 demonstrates logistic regression analysis of factors affecting PS. Significant predictors as revealed by multivariate logistic regression analysis showed that educational level remained associated with overall satisfaction ( $P=0.002$ ). The association between overall satisfaction, age, gender, visit time, and person who completed questions did not reach a statistically significant level ( $P=0.14, 0.18, 0.50, 0.68$  respectively).

## Discussion

Patient satisfaction is the most important indicator to measure the quality of health care services and its delivery in the ED (7,16,17). This report study is the first published study in Palestine focusing on satisfaction using the Press Ganey questionnaire-Arabic version which has an excellent reliability and validity. Our study revealed a high satisfaction level, even though there are numerous unmet needs (18,20). About 73.1% of 200 respondents of

**Table 2.** Satisfaction level of clients in regard to 22 items of the questionnaire

Question	Very poor	Poor	Fair	Good	Very good
Satisfied with the medical care provided in the ED	2.5	10.5	20.5	49.0	17.5
Triage arrange patients and prevented crowded	0.0	11.5	10.0	49.0	29.5
Care providers genuine interest with the patients	3.5	3.0	6.0	54.5	33.0
Allow to say everything that think is important	0.0	13.0	33.5	35.0	18.5
Information the care provider gave you about medications	2.0	9.5	38.0	41.0	9.5
Instructions the care provider gave you about follow-up care	4.5	7.0	26.5	51.5	10.5
Degree to which care provider talked with you using words you could understand	0.0	2.5	39.0	47.5	11.0
Get emergency care without any trouble	4.5	13.5	34.0	35.5	12.5
Courtesy of staff in the registration area	0.5	7.0	21.5	54.0	17.0
Easy to get medical care in ED	0.0	10.5	25.5	46.5	17.5
Comfort and pleasantness of the waiting area	6.5	9.5	25.5	46.0	12.5
Courtesy of security staff	4.5	14.0	26.5	42.5	12.5
Waiting for a long time in the triage (unnecessarily) before entering the ED	4.5	24.0	30.5	17.0	24.0
Friendliness/courtesy of the nurse	0.0	4.0	12.5	45.5	38.0
Concern the nurse showed for doing medical orders	0.0	2.5	25.0	47.0	25.5
Comfort and pleasantness during examination	1.0	2.0	28.0	46.5	22.5
Friendliness/courtesy of the physician	0.5	1.0	24.5	45.0	29.0
Explanations the physician gave you about your condition	3.5	3.5	28.0	50.0	15.0
Concern the physician showed for your questions or worries	1.5	10.5	29.0	47.5	11.5
Physician efforts to include you in decisions about your treatment	7.5	5.0	34.5	35.0	18.0
Frequency of being visit by physicians	5.0	12.5	31.0	33.0	18.5
Degree to which physician talked with you using words you could understand	9.0	26.5	29.5	21.5	13.5

**Table 3.** Logistic regression used for factors affecting on patient satisfaction

Variables	B	Wald	OR	95% CI	P value
Age	0.42	2.15	0.65	0.37-1.15	0.14
Gender	0.54	1.75	1.73	0.76-3.90	0.18
Educational level	0.55	9.84	0.57	0.40-0.81	0.002
Person complete question	0.28	0.45	0.75	0.32-1.73	0.50
Time of visit	0.10	0.10	0.90	0.54-1.49	0.68
Constant	4.35	8.47	78.00		0.004

our study were satisfied with the overall care. In a report in 2009 it was shown that 83.18% of 1 399 047 patients treated at 1725 hospitals nationwide were satisfied with the overall health care (14).

The ED is a unique ward among other medical care services, therefore, understanding the factors affecting PS is essential (17). Thus, the researchers in addition to the satisfaction level, looked for other factors affecting PS by conducting a regression analysis. The study indicated that patients with a high educational level have higher satisfaction level, this is because higher education level participants can listen and converse with the medical staff. Nonetheless, there was no relationship reported by age, gender, work shifts, severity of the patient conditions, and patients who completed the questionnaire. This finding is not in line with the study of Damghi et al that observed an association between satisfaction and type of emergency admission, waiting time and the distance from patient's home to the hospital (21).

Further analysis of data revealed that patients who arrived in the ED between 14:00 to 20:00 were more dissatisfied than those who arrived in the other times of the day and the difference between arriving time and satisfaction level did not reach a significant level. This result is consistent with a Press Ganey report that recorded the highest levels of satisfaction with the ED in early morning hours (14). Evidence shows that age and gender do not have an effect on the satisfaction level (17,22), but there is an association between satisfaction and respect of doctors and nurses for patients during waiting time (17). Another study conducted in Iran confirms the association between gender, level of education and satisfaction (23). Contrary to other researches, our findings showed that gender has an effect on PS.

A study at Cooper Hospital in New Jersey in 2004 showed that the level of satisfaction was the highest in those with serious diseases or urgent needs (24). This result is inconsistent with our findings.

Based on our findings, there are some problems for patients in the ED which need urgent attention to increase patient satisfaction. For example, waiting time and explanation of test results are problems which have an effect on satisfaction. For instance, waiting long time of the patient in triage area of patients who does not need immediate intervention by the medical staff leads to dissatisfaction with the health service.

Communication of staff with patients and caregivers and information provided to them are also considered another problem and does not seem to be priority of patients visiting the ED. Here we focus on chronic patients who are reluctant to ED for receiving treatment or admission to hospital. These patients are not concern about health providers communication and information.

This may be attributed to Palestinian's culture. Islam is a major religion in Palestine. The certainty that fate is under the control of Allah and therefore the wellbeing and disease are undeniable. Patients pray to tackle the stressful situations they are faced and win the blessing of Allah. The disease is considered as a predestined fact and should not be directly linked to a possible failure in the management of medical and paramedical situations.

### Conclusion

The simplest, cheapest and most effective way of evaluating health care services is PS. In this study, PS is evaluated and findings show that patients were more satisfied from ED services. Findings reveal that crucial interventions are needed in areas including physician and nursing services, communication skills, registration, physical comfort, and security staff. To achieve these improvements, quality management in health services is essential, and the systematic use of comments and feedbacks can improve efficiency and satisfaction.

### Ethical issues

This study was approved ethically by in-services education department of European Gaza Hospital. Informed consent was taken from the participants for the study.

### Authors' contributions

All authors have read and approved the manuscript. AAS, AEK, and AEN performed the data collection, writing, critical revision and drafting of the manuscript. HAO undertook the major parts of the study design and performed the statistical analysis, data analysis and data interpretation.

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