

# Factors Affect Patients Satisfaction in Emergency Departments in Palestine

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## Abstract

**Background:** Emergency care can make an important contribution to reduce avoidable deaths and disabilities. Assessing health care quality and improving patient satisfaction have become a global health-related issue, particularly among health care suppliers and customers of health care due to increase of customers' knowledge and awareness regarding health care services. Patient satisfaction is a patient's perception of care received compared with the care expected. Patient satisfaction was considered as an essential indicators of emergency care.

**Methods:** A descriptive and cross-sectional design was utilized in this study. All patients above 10 years who attended private and governmental hospitals in west bank for all potential health conditions were recruited (n=1150 patients). The Arabic version of the self-administered questionnaire of "Brief Emergency Department Patient Satisfaction Scale (BEPSS)" was used. **Results:** The majority of the subjects was men in (21-39) year old category, and were living in villages. More than half of the subjects were attendees of ED in private hospitals during night shifts. Duration of subjects' waiting to see physicians and nurses was less than 15 min. Subjects were satisfied highly as ranked ordered in for different items in the BEPSS scale domains. There were significant differences between as groups on BEPSS related to educational level and place of resident ( $F=6.14$ ,  $p \leq 0.00$ ) and ( $F=3.50$ ,  $p=0.03$ ) respectively. **Conclusion:** This study shown that overall patients' satisfaction score was 3.77 over 5 and this reflect an acceptable level of patients satisfaction Emergency hospital services and healthcare providers in Palestine.

**Keywords:** Emergency Department (ED), Palestine, Patients Satisfaction.

## 1. Background

Patient satisfaction is an indicator of quality of care and service delivery in emergency departments(Noochi, Komsari, Nakhaee, & Feyzabadi, 2013; Soleimanpour et al., 2011). Emergency care can make an important contribution to reduce avoidable deaths and disabilities in low and middle income countries(Damghi et al., 2013). A number of patients satisfaction contributing related variables need to be investigated in order to improve inadequacies of conditions lead to patients dissatisfaction(Rahmqvist & Bara, 2010). Assessing health care quality and improving patient satisfaction have become a global health-related issue, particularly among health care suppliers and customers of health care due to increase of customers' knowledge and awareness regarding health care services(Soufi et al., 2010).

Patient satisfaction is the level of happiness that clients experience having used a service or it is a patient's perception of care received compared with the care expected(Worku & Loha, 2017). Satisfaction is an important health care issue specifically in emergency department which is considered as a gatekeeper of treatment for patients(Noochi et al., 2013; Soleimanpour et al., 2011). Furthermore, patient satisfaction was considered as an essential indicators of emergency care quality and emergency care outcome(Aiken et al., 2012). However, patients satisfaction is affected by different variables which includes patient's wellness, education, occupation, and socioeconomic status(Amro & Qtait, 2017).

The researched literature agreed upon that there's a direct impact of measuring patient satisfaction on quality care provided(Bjertnaes, Sjetne, & Iversen, 2012). Patients' satisfaction concerning care can be a realistic index to supply possibility of improvement, improve strategic making decisions, minimize cost, meet patients' objectives, structure methods for efficient management, keep track of healthcare overall performance of health plans and offer benchmarking over the healthcare institutions(Ahmad et al., 2011).According to literature, patient satisfaction and continuity of care were related significantly. It was found that satisfaction with care provided lead patients to comply with the treatment plan and with receiving treatment in the same health care institution by same healthcare providers(Mohan & Kumar, 2011).

According to Palestinian Central Bureau of Statistics (2016), the estimated population of Palestinian was 4,816,503. The population distribution shows that 60.9% of Palestinian were living in the governorates of West Bank and 39.1% in the governorates of Gaza Strip. In the west bank, the number of health related visits to the

emergency services in Ministry of Health affiliated hospitals was 864,613(MOH, 2016). Palestinians in the West Bank have been living under prolonged military occupation, this occupation affected all aspects of people's lives and still constitutes a real challenge for Palestinians health and the entire health care system. Palestinian emergency services are carried out under a huge pressure, with insufficient human resources and lack of medical equipment and supplies. The demand on health services is greatly increased with the increased intensity of Israeli violence against Palestinians. The health care system in Palestine is overwhelmed by the influx of injuries and traumas. These conditions are considered as emotionally and physically challenging for the health care workers in emergency departments.

Patients satisfaction cannot be achieved without evaluation, research, and practical intent to promote the quality of services(Zohrevandi & Tajik, 2014). This study was carried out to find Palestinian patient satisfaction related factors in ED. Identifying these related factors can enhance and improve the quality in ED. Furthermore, there is inadequate research that targeting the same purpose of the study in Palestine.

## **2. Methods**

### *2.1 Study design and population*

A descriptive and cross-sectional design was utilized in this study. All patients above 10 years who attended private and governmental hospitals in west bank for all potential health conditions were recruited. The exclusion criteria were patient who cannot read or write and patient who have been diagnosed as psychiatric disease sufferer. Sample was selected on non-random basis through convenience sampling method. The total number of subjects who met the inclusion criteria during the designated duration of data collection (from Jan 2018 to Apr 2018) was 1150 patients.

### *2.2 Data collection and measurement*

The Arabic version of the self-administered questionnaire of "Brief Emergency Department Patient Satisfaction Scale (BEPSS)" was used(Atari & Atari, 2015). The questionnaire measures different areas related to patient satisfaction in emergency department. The BEPSS is a five-level Likert points scale consists of six parts. Part I: the demographic data of the subjects. Part II: level of satisfaction about emergency services (4 items). Part III: level of Satisfaction about emergency department environment (8 items). Part IV: Satisfaction about emergency staff (11 items). Part V: satisfaction about privacy in emergency department (2 items). Part VI: satisfaction about timing in emergency department (1 item). Part VII: Satisfaction about returned come back to the same emergency department. Percentages and mean score were calculated for each satisfaction item. As a pilot trial, twenty subjects who met the inclusion criteria of the study were recruited to assess the readability and timing of completing the instrument. The result of pilot study indicated that the estimated time of completing data was 5-10 minutes. All participants in the pilot study indicated that the instrument was clear and easy to understand. Only two items were revised by researchers; the first comment was about wording of three words, the second comment was about the font size. Researchers revised the commented words, modified them and redesigned the questionnaire using larger font size. The Cronbach's alpha reliability coefficient for the BEPSS instrument was 0.86.

### *2.3 Statistical Analyses*

Data were analyzed using the IBM Statistical Package of social science program (SPSS) version 23. Descriptive and inferential statistics were used to find the mean score and percentages of patient satisfaction and also to test the hypothesis. Researchers used independent t-test and one way ANOVA to determine if there a significance differences between score of BEPSS s and the selected independent variables.

### *2.4 Ethical considerations*

Informed consent from participants and from data collection settings were obtained. Subjects' participation was fully voluntary. The confidentiality and anonymity of the obtained data was completely secured by providing code numbers for each subject.

## **3. Results**

The majority of the subjects was men in (21-39) year old category, and were living in villages. The majority of subject were able to read and write (Table 1). More than half of the subjects were attendees of ED in private hospitals during night shifts. Duration of subjects' waiting to see physicians and nurses was less than 15 min (Table 1.).

Table 1. Socio-demographic and Service-Related characteristics of the Sample (n=1150).

	Item	n (%)
<b>Gender</b>	Male	777 (67.6%)
	Female	373 (32.4%)
<b>Age-group</b>	10 to 20 years	266 (23.1%)
	Between 21 to 39 years	513 (44.6%)
	More than 40 years	371 (32.3%)
<b>Place of residence</b>	City	415 (36.1%)
	Village	568 (49.4%)
	Camp	167 (14.5%)
<b>Level of education</b>	Does not hold a certificate	624 (54.3%)
	Diploma	151 (13.1%)
	Bachelor's	310 (27.0%)
	Master degree	65 (5.70%)
<b>Type of hospital</b>	Private	651 (56.6%)
	Governmental	499 (43.4%)
<b>Attending ED time</b>	Day shift	537 (46.7%)
	Night shift	613 (53.3%)
<b>Time waiting to see nurse</b>	less than 15 minutes	882 (76.7%)
	Between 15-30 minutes	189 (16.4%)
	Between 31-60 minutes	26 (2.30%)
	More than 60 minutes	53 (4.60%)
<b>Time waiting to see physician</b>	less than 15 minutes	667 (58.0%)
	Between 15-30 minutes	291 (25.3%)
	Between 31-60 minutes	123 (10.7%)
	More than 60 minutes	69 (6.0%)

Table 2. Shows that subjects were satisfied highly as ranked ordered in the different domains of BEPSS by the following items: respectful treatment (4.20), registration Clarke was helpful (4.15), respect for their privacy (4.14), and safe waiting environment (3.94).

Table 2. The means and percentages of BEPSS items (n=1150).

Item	M (±)
<b>Patient satisfaction about Emergency ward services (3.72)</b>	
1. The registration clerks were helpful.	4.15 (±0.87)
2. I received prompt service.	3.71 (±1.11)
3. It was easy to find my way around	3.11 (±1.31)
4. The emergency room had access to telephones.	3.91 (±1.03)
<b>Patient satisfaction about Environment in &amp; around Emergency ward (3.61)</b>	
5. The location of the emergency room was convenient.	3.69 (±1.06)
6. The waiting area in emergency ward was clean.	3.81 (±1.06)
7. I felt safe in the waiting area in emergency ward	3.94 (±0.93)
8. The examination area was clean in emergency ward	3.67 (±1.11)
9. Convenient parking was available around emergency ward	3.06 (±1.28)
10. The waiting area was comfortable in emergency ward	3.58 (±1.15)
11. The emergency ward had medical equipment to meet my needs	3.72 (±1.05)
12. The waiting area was quiet.	3.43 (±1.20)
<b>Patient satisfaction about staff ( Nurses &amp; physician ) in emergency ward (3.84)</b>	
13. The nurses were caring about my case	4.04 (±0.85)
14. Medical terms were clearly explained to me	3.46 (±1.18)
15. The doctors listened to me	4.04 (±0.99)
16. Tests and procedures were explained to me in a way I could understand.	3.76 (±1.05)
17. I was treated with respect.	4.20 (±0.83)
18. If I had to wait, the reason for the delay was explained	3.72 (±1.08)
19. I was given enough information about my medical condition.	3.80 (±1.01)
20. There was a contact person for my family and friends.	3.65 (±1.02)
21. Any questions I had were answered before I left the facility.	3.74 (±1.05)
22. The discharge instructions were clearly explained	3.79 (±1.00)
23. The nurses were responsive to my needs	4.09 (±0.90)
<b>Patient satisfaction about privacy in Emergency ward (3.96)</b>	
24. My family and friends were informed about me during treatment in ED	3.78 (±0.97)
25. My privacy was respected during examinations.	4.14±(0.831)
<b>Patient satisfaction about timing in emergency ward (3.78)</b>	
26. Tests and procedures were carried out in a timely manner.	3.78 (±1.06)
<b>Satisfaction about returned come back to the same emergency department (3.73)</b>	
27. I would return to this emergency room.	3.77 (±1.13)
28. I would recommend ED to my family and friends in the future	3.69 (±1.16)

Analysis of t-test and ANOVA were run to identify differences of patient satisfaction as measured by BEPSS based on some dichotomous and multiple categorical variables. Table 4 shows that there was significant difference between groups on BEPSS related to educational level ( $F=6.14$ ,  $p\leq 0.00$ ). Specifically, results indicated that patients who have master degree were more satisfied ( $m= 4.10$ ,  $\pm 0.78$ ), than Diploma holders ( $m = 3.79$ ,  $\pm 0.61$ ), and Bachelor holders ( $m = 3.70$ ,  $\pm 0.76$ ), and than subjects who have no certificates ( $m=3.70$ ,  $\pm 0.74$ ). The F was 3.50, and the p value was 0.03. Patients who spent less time for seeing physician and nurses in ER ( $\leq 15$  min) were significantly more satisfied than those who spent more time to see them ( $p=0.00$ ). The results shown that there was not significant difference between attendees of ED in day shift ( $M=3.87$ ,  $\pm 0.68$ ), and night shift ( $M=3.65$ ,  $\pm 0.75$ ) and their satisfaction level. The t-value was 5.02 (1148),  $p=0.06$ . Specifically, our results suggest that patients who visits the ED at day and night shift had same satisfaction score (Table 3.).

Table 3. Differences of BEPSS scores based on socio-demographic and emergency department related characteristics.

Variable (n)	n	Mean±SD	F and t	P Value
<b>Gender</b>				
Male	777	3.73±0.70	-1.8	0.24
Female	373	3.81±0.76		
<b>Age group</b>				
less than 20 years	266	3.70±0.75	1.28	0.27
Between 21 to 39 years	513	3.76±0.73		
More than 40 years	371	3.79±0.69		
<b>Place of residence</b>				
City	415	3.81±0.70	3.50	0.03
Village	568	3.74±0.72		
Camp	167	3.64±0.79		
<b>Level of education</b>				
Not have any certification	624	3.70±0.74	6.14	<0 .001
Diploma	151	3.79±0.61		
Bachelor's	310	3.76±0.70		
Master degree	65	4.10± 0.78		
<b>Type of hospital</b>				
Private	651	3.89±0.68	7.52	0.98
Governmental	499	3.57±0.73		
<b>Attending time</b>				
Day shift	537	3.87±0.68	5.02	0.06
Night shift	613	3.65±0.75		

#### 4. Discussion

Patient satisfaction is essential and must be taken into consideration when decisions are being made about improving healthcare services (Farahani, Shamsikhani, & Hezaveh, 2014). Patient satisfaction is essential in quality measures which can indicate improvements in healthcare services, and has become an important metric for health care system performance, and was associated with reimbursement (Wieck et al., 2017). Moreover, patient satisfaction surveys may be performed in healthcare systems, and could be considered as key element in identifying health care (Radtke, 2013).

Currently, the Palestinian territories have approximately sixty hospitals and health care centers (Mahmoud, 2013). Palestinian emergency services are carried out under a huge pressure, with insufficient human resources, lack of medication and life-saving equipment, and frequent electricity cuts. The demand on health services frequently increases with the flare of Israeli violence against Palestinians (Hamdan, 2017).

This study reports the results of the first Palestinian study concerning the factors that affect patient satisfaction in emergency department. In this study, researchers assessed the overall satisfaction of the patients in Palestine, the overall mean score of general PS was high, 3.77 out of 5. Similar to other studies, the general satisfaction of participants were high, although there are many unmet patients needs (Bleich, Özaltın, & Murray, 2009; Bredart et al., 2004; Messina et al., 2015; Soufi et al., 2010).

In the present study, 3.72 over 5 were satisfied by the emergency services, there is a study conducted in Hawassa, Southern Ethiopia support our findings (Worku & Loha, 2017). In details, our study shown that the subjects specifically were satisfied by the registration employs association this results confirmed by previous study (Alazmi, 2017). Moreover, our findings shown that subjects were satisfied about the accessibility to contact using telephone in ED compared with previous study conducted in Pakistan that telephone facility in emergency department was available to only 15.17% of patients (Sultana et al., 2010).

Our study shown that subjects satisfaction about environment in and around emergency with overall score 3.61 over 5. In more details, subjects reported satisfaction with ED context in term of safety and hygienic context. The present results confirms previous international studies results in Morocco, Kuwait and Iran(Alazmi, 2017; Damghi et al., 2013; Soleimanpour et al., 2011).

In the domain of PS about nurses and physician, our results shown that the subjects treated with respect were satisfied greatly by care provided. Another findings was subject who received adequate and understandable information were satisfied by healthcare. There are a studies reveled that 68.54% were satisfied with explanation of the health problems by healthcare giver and 61.8% were fully satisfied with the management while attitude and behavior of doctors and nurses were found to be satisfactory by 95.5% and 94.5% respondents respectively(Alazmi, 2017; Sultana et al., 2010).

In present study, the highest satisfaction score by patients were observed for maintaining their patients privacy with overall score was 3.96 over 5. Maintains privacy during physical examination by health care providers are following ethical principle such as privacy and confidentiality and most of all healthcare providers are vital process to quality of care in ED. Previous studies consisted with our findings in reveled that patients feel more comfort during health assessment and history taking(Olsen & Sabin, 2003). Other study shown that 80% of patients privacy was respected and protected(Sagaro, Yalew, & Koyira, 2015).

Similar to other study, there is no significant differences in gender, age, types of hospitals and shifts. A study conducted in the US shows that variables such as age and gender do not have a profound impact on satisfaction level(Hall & Press, 1996). Aragon's study reveals similar results; overall satisfaction was equal despite gender(Aragon & Gesell, 2003). Our study shown that there is a significant differences in place of residence and level of education. Regarding place of residence, patients who were lived in cities are more satisfied than village and cohabitant, the reason could be due to most of private and governmental hospitals are located in cities, which are closer to them than lived in village and camp and another reason could be the limitation number of private hospitals in Palestine. There is a study support our explanation that reveled patient who lived within 10 Kilometers distance from hospital will be more satisfied than patients who were lived more than 10 Kilometers(Damghi et al., 2013). Regarding education level, Patients with a lower educational level (illiterate, primary, and secondary levels) were less satisfied than well educational level. Patients with a high educational level are more satisfied because they can listen and integrate medical debate. Thus, they accept that their rescue was dependent on good management, despite uncomfortable conditions(Damghi et al., 2013).

## 5. Conclusion

Patient satisfaction are a vital process to evaluate the quality of hospitals and healthcare providers for care in West Bank, Palestine. This study shown overall satisfaction score 3.77 over 5 of patients experiences and reflect very good overview about our hospitals and healthcare providers inside emergency departments in Palestine.

## 6. Limitation

This study inherent limitation that must be taken into consideration. Convenience sample may limit the generalizability of the results. The use of self administered questionnaire is not enough to evaluate satisfaction, researchers recommended using other methods to evaluate patients satisfaction.

## 7. Acknowledgments

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## 8. Authors' Contribution

Authors were involved actively in planning and supervised the work of the study. All listed researchers collectively performed the analysis, drafted the manuscript and designed the tables. Researchers interpreted the results and worked on the manuscript. All authors discussed the results and they assigned the first researcher to be correspondent author.

## 9. Conflict of Interest

None.

## 10. References

- AHMAD, I., NAWAZ, A., KHAN, S., KHAN, H., RASHID, M. A. & KHAN, M. H. 2011. Predictors of patient satisfaction. *Gomal Journal of Medical Sciences*, 9.
- AIKEN, L. H., SERMEUS, W., VAN DEN HEEDE, K., SLOANE, D. M., BUSSE, R., MCKEE, M., BRUYNEEL, L., RAFFERTY, A. M., GRIFFITHS, P. & MORENO-CASBAS, M. T. 2012. Patient safety, satisfaction, and

- quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *Bmj*, 344, e1717.
- ALAZMI, S. F. 2017. Patients' Satisfaction with Emergency Departments in General Hospitals in Kuwait. *Merit Research Journal of Medicine and Medical Sciences*, 5, 577-583.
- AMRO, N. R. & QTAIT, M. 2017. General Knowledge & Attitude of First Aid among Schoolteacher's in Palestine. *International Journal of Innovative Research in Medical Science*, 2, 660 to 665-660 to 665.
- ARAGON, S. J. & GESELL, S. B. 2003. A patient satisfaction theory and its robustness across gender in emergency departments: a multigroup structural equation modeling investigation. *American Journal of Medical Quality*, 18, 229-241.
- ATARI, M. & ATARI, M. 2015. Brief Emergency Department Patient Satisfaction Scale (BEPSS); development of a new practical instrument. *Emergency*, 3, 103.
- BJERTNAES, O. A., SJETNE, I. S. & IVERSEN, H. H. 2012. Overall patient satisfaction with hospitals: effects of patient-reported experiences and fulfilment of expectations. *BMJ Qual Saf*, 21, 39-46.
- BLEICH, S. N., ÖZALTIN, E. & MURRAY, C. J. 2009. How does satisfaction with the health-care system relate to patient experience? *Bulletin of the World Health Organization*, 87, 271-278.
- BREDART, A., MIGNOT, V., ROUSSEAU, A., DOLBEAULT, S., BEAULOYE, N., ADAM, V., ELIE, C., LEONARD, I., ASSELAIN, B. & CONROY, T. 2004. Validation of the EORTC QLQ-SAT32 cancer inpatient satisfaction questionnaire by self-versus interview-assessment comparison. *Patient Education and Counseling*, 54, 207-212.
- DAMGHI, N., BELAYACHI, J., ARMEL, B., ZEKRAOUI, A., MADANI, N., ABIDI, K., BENCHEKROUN, A. B., ZEGGWAGH, A. A. & ABOUQAL, R. 2013. Patient satisfaction in a Moroccan emergency department. *International archives of medicine*, 6, 20.
- FARAHANI, M. F., SHAMSIKHANI, S. & HEZAVEH, M. S. 2014. Patient satisfaction with nursing and medical care in hospitals affiliated to arak university of medical sciences in 2009. *Nursing and midwifery studies*, 3.
- HALL, M. F. & PRESS, I. 1996. Keys to patient satisfaction in the emergency department: results of a multiple facility study. *Journal of Healthcare Management*, 41, 515.
- HAMDAN, M. 2017. Burnout among workers in emergency Departments in Palestinian hospitals: prevalence and associated factors. *BMC health services research*, 17, 407.
- MAHMOUD, A. 2013. Health challenges in Palestine. *Science and Diplomacy*. Available at: <http://www.sciencediplomacy.org/perspective/2013/health-challenges-in-palestine> (accessed 18 January 2016).
- MESSINA, G., VENCIA, F., MECHERONI, S., DIONISI, S., BARAGATTI, L. & NANTE, N. 2015. Factors affecting patient satisfaction with emergency department care: an Italian rural hospital. *Global journal of health science*, 7, 30.
- MOH 2016. Director of Palestinian Health Information Center (PHIC). *Ministry of Health*.
- MOHAN, D. R. & KUMAR, K. S. 2011. A study on the satisfaction of patients with reference to hospital services. *Int J Bus Econ Manag Res*, 1, 15-25.
- NOOHI, K., KOMSARI, S., NAKHAEI, N. & FEYZABADI, V. Y. 2013. Reasons for discharge against medical advice: A case study of emergency departments in Iran. *International journal of health policy and management*, 1, 137.
- OLSEN, J. C. & SABIN, B. R. 2003. Emergency department patient perceptions of privacy and confidentiality. *The Journal of emergency medicine*, 25, 329-333.
- RADTKE, K. 2013. Improving patient satisfaction with nursing communication using bedside shift report. *Clinical Nurse Specialist*, 27, 19-25.
- RAHMQUIST, M. & BARA, A.-C. 2010. Patient characteristics and quality dimensions related to patient satisfaction. *International Journal for Quality in Health Care*, 22, 86-92.
- SAGARO, G. G., YALEW, A. W. & KOYIRA, M. M. 2015. Patients' satisfaction and associated factors among outpatient Department at Wolaita Sodo University Teaching Hospital, Southern Ethiopia: a cross sectional study. *Sci J Clin Med*, 4, 109-116.
- SOLEIMANPOUR, H., GHOLIPOURI, C., SALARILAK, S., RAOUFI, P., VAHIDI, R. G., ROUHI, A. J., GHAFOURI, R. R. & SOLEIMANPOUR, M. 2011. Emergency department patient satisfaction survey in Imam Reza hospital, Tabriz, Iran. *International journal of emergency medicine*, 4, 2.
- SOUFI, G., BELAYACHI, J., HIMMICH, S., AHID, S., SOUFI, M., ZEKRAOUI, A. & ABOUQAL, R. 2010. Patient satisfaction in an acute medicine department in Morocco. *BMC health services research*, 10, 149.
- SULTANA, A., RIAZ, R., HAMEED, S., SYED ARSHAD, S., IFFAT, T. & ARSHIA, B. 2010. Patient satisfaction in emergency department of District Head Quarters Hospital, Rawalpindi. *Rawal Med J*, 35, 85-90.
- WIECK, M. M., BLAKE, B., SELICK, C., KENRON, D., DEVRIES, D., TERRY, S. & KRISHNASWAMI, S. 2017. Utilizing technology to improve intraoperative family communication. *The American Journal of Surgery*, 213, 895-900.

- WORKU, M. & LOHA, E. 2017. Assessment of client satisfaction on emergency department services in Hawassa University Referral Hospital, Hawassa, Southern Ethiopia. *BMC emergency medicine*, 17, 21.
- ZOHREVANDI, B. & TAJIK, H. 2014. A Survey of Patients' Satisfaction in Emergency Department of Rasht Poursina Hospital. *Emergency*, 2, 162.