MERIT RESEARCH JOURNALS
www.meritresearchjournals.org

Merit Research Journal of Medicine and Medical Sciences (ISSN: 2354-323X) Vol. 5(11) pp. 577-583, November, 2017
Available online http://www.meritresearchjournals.org/mms/index.htm

Original Research Article

Patients' Satisfaction with Emergency Departments in General Hospitals in Kuwait

Dr. Saadoun Faris Alazmi

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

E-mail: drsaadoun@yahoo.com
Mobile:+965 99656756

Abstract

Patient Satisfaction (PS) is an important and commonly used indicator for measuring the quality of health care and service delivery in the emergency department. This study aimed to evaluate patient satisfaction in the emergency department in government general hospitals in Kuwait. A cross-sectional study was conducted in January - March 2016. Data collection form included personal data and questions related to satisfaction. Patient satisfaction scores toward emergency departments in Ameri (80.9%) and Jahra (79.7%) hospitals were significantly higher than Mubarak (71.4%), Farwaniya (65.9%) and Adan (71.1%) hospitals. The lowest level of satisfaction was related to waiting time, time spent with the physician and the waiting area. Attempt for reducing waiting time, providing comfort environment, increasing the time of visit with emergency physicians can reduce the patient dissatisfaction.

Keywords: Patient satisfaction, health care, emergency department, Kuwait

INTRODUCTION

Hospital Emergency Department (ED) is supposed to act as a treatment garrison for patients. Health care in ED can make an important contribution to reduce the proportion of avoidable deaths and disability in low and middle income populations (Damagh et al., 2013).

At a hospital level, providing a quality service is usually challenged by burdensome patients' flow and the urgent nature of care in the ED further suppresses the effort (Abdosh, 2006).

The number of ED attendants is steadily increasing that indicates the importance of planning good quality health services according to the needs of these patients.(Trout et al., 2000)Thus, ED must achieve patient satisfaction (PS) by providing high quality services (Soleimanpour et al., 2011). PS is the patient's perception of care received compared with the care expected (Lay, 2000). It is one of the most important indicators for evaluation of the quality of emergency care and outcomes of health care services (Aiello and McNeil, 1988; Taylor and Benger, 2004; Aiken et al., 2012). Some researchers believed that improving the work processes and hospital quality are not possible unless taking into consideration patients' opinion, needs, expectations and satisfaction.

A common method to improve the ED quality of care is to conduct a client satisfaction survey to clearly detect the variables which could be associated with and affecting. The satisfaction level (Trout et al., 2000). Measurement of PS is essential for evaluating the delivery of health care and for assessing patient outcomes. The importance of PS as an indicator of the quality of ED care is due to its relevance to compliance and recall of medical advice (Moll et al., 2006).

PS is a complex structure including a list of factors as the physician's knowledge, clinical and communication skills, personal characteristics, accessibility, appropriateness of location and surrounding area, office resource availability, continuity of care, efficacy, or financial arrangements and other factors (Krowinski and Steiber, 1996). Previous studies indicated that using the results obtained from satisfaction surveys can have a great effect on the ED quality of services (Trout et al., 2000;

Reihani et al., 2015; Lovato et al., 2013). The aim of the present study is to evaluate PS in the EDs in government general hospitals in Kuwait.

SUBJECTS AND METHOD

Setting

Kuwait has one of the most advanced health care facilities in the region. It also has relatively strong indicators of process of care, outcome of care and country level health care quality. However, there is overload on health care facilities due to shortage of doctors, particularly specialists. This study was conducted in five general hospitals (one in each health region of Kuwait) in January – March 2016.

Study design

A cross-sectional study was adopted to describe PS towards receiving health care in the EDs in the selected hospitals. The study populations were patients admitted to the EDs during the study period. A pre-designed questionnaire was used for data collections. The satisfaction "Revised Press Ganey" questionnaire was used in this study with some modification of some items and deletion of others as that related to "room", "food" and "discharge" to fit for EDs in general hospitals in Kuwait (Chandra et al., 2011; Jeanmonod et al., 2010). It was validated by distributing it to emergency department specialists and academic members to confirm its content validity. The questionnaire included domains related to socio-demographic characteristics (age, gender, nationality, education, occupation, education, and marital status), and satisfaction towards ED area (7 statements), staff courtesy in ED (6 statements) and care providers in ED (7 statements). Participant responded to sentences related to satisfaction by "very poor, poor, fair, good or very good". Patients were interviewed immediately after getting emergency service either at the time of admission or in patient's ward from ED or before the clients go to their home after getting emergency service. A relative or friend accompanying the patient was used to answer the questionnaire if patient condition prevented him from talking to the interviewer.

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. A pilot study was conducted prior to the field work on a small sample of participants aiming to test the clarity of the questions, and its suitability for use in Kuwaiti culture. This study revealed that the questions were suitable with some minor modifications of certain expressions.

Statistical analysis

Data were tested to find out possible mistakes by sorting of variable, determining the range, minimum and maximum values of each variable. Also, frequency distribution and cross tabulations were performed to detect controversy between variables. Data were revised for completeness. Satisfaction score was calculated by Likert's scale (very poor = 1, poor = 2, fair = 3, good = 4 and very good = 5). The total score for each respondent was calculated by summing scores for all sentence, then transferred into percentage score. Score was categorized into low < 50%, intermediate 50% - 75% and high > 75%.Simple descriptive statistics were used as frequency and percentage distribution for categorical variables, and mean ±standard deviation for quantitative variables. One way ANOVA test was used to compare percentage satisfaction scores between different hospitals.

Exclusion criteria included significant impairment of cognition, having a bad ill appearance, so that patient could not answer the questions. Patients were selected after ending their hospitalization at the ED and interviewed by research partners trained to have dealing with patients and design the questionnaire in a way to prevent patient's bias in answering. Patient was asked in calm condition. The patient who had enough literacy asked to fill the questionnaire if not; it was read for them in order to answer the questionnaire

RESULTS

Recruitment effort resulted inclusion of 713 ED patients who agreed to participate in the study. General characteristics of the study sample were presented in Table 1. The age of the participants ranged from 18 to 86 years (mean = 37.3 ± 15.0), with higher proportion in the age category 30-49 years (43.8%). Of the participating patients, 53.7% were males, 44.6% were Kuwaiti, 57.5% were married, 40.8% had higher degree than intermediate education, and 55.7% were interviewed in the morning period.

Considering patient satisfaction for each item of health service, Table 2 illustrates the proportion of satisfaction (very good/good) among participant. Regarding ED area, the proportion of participants who were satisfied about certain statements were 47.9% for "Comfort and pleasantness of the waiting area", 58.5% for "Comfort

Table 1. General characteristics of the study population

Variable	No.	%
Hospital		
Amiri	84	11.8
Mubarak	162	22.7
Farwaniya	140	19.6
Jahra	101	14.2
Adan	226	31.7
Gender		
Male	383	53.7
Female	330	46.3
Age (years)		
< 30	252	35.3
30 - 49	312	43.8
≥ 50	149	20.9
Nationality		
Kuwaiti	318	44.6
Non-Kuwaiti	395	55.4
Education		
Below intermediate	176	24.7
Intermediate	246	34.5
Above intermediate	291	40.8
Marital state		
Single	219	30.7
Married	410	57.5
Divorced / widowed	84	11.8
Time of visit		
Morning	397	55.7
Evening	218	30.6
Night	98	13.7
Interview with		
Patient himself	379	53.2
Accompanied person	334	46.8
Total	713	100.0

Table 2. Distribution of participants according to their satisfaction in emergency department

Statement	Very poor	Poor	Fair	Good	Very Good
Emergency department area:					
– Comfort and pleasantness of the waiting area	*10.2*	*17.4*	*24.4*	*26.2*	*21.7*
– Comfort and pleasantness during examination	*7.4*	*10.8*	*23.3*	*28.8*	*29.7*
– Length of wait before going to an examination room	*11.6*	*16.3*	*25.7*	*26.2*	*20.2*
– Overall cheerfulness of our practice	*8.1*	*13.7*	*22.0*	*30.4*	*25.7*
– Overall cleanliness of our practice	*9.7*	*13.7*	*20.8*	*28.1*	*27.8*
– Likelihood of your recommending our practice to others	*9.5*	*12.9*	*23.1*	*28.1*	*26.4*
– Frequency of being visit by physician	*10.1*	*15.0*	*25.1*	*24.0*	*25.8*
Staff courtesy in emergency department:					
– Courtesy of staff in the registration area	*5.6*	*13.5*	*22.2*	*28.6*	*30.2*
– Friendliness/courtesy of the nurse	*4.3*	*8.7*	*20.5*	*27.8*	*38.7*
– Courtesy of security staff	*5.0*	*10.2*	*24.4*	*28.9*	*31.4*
– Courtesy of staff who transfer the patients	*4.6*	*11.1*	*23.4*	*31.0*	*29.9*
– Friendliness/courtesy of the care provider	*4.3*	*10.2*	*18.8*	*29.6*	*37.0*
– Concern the nurse showed for doing medical orders	*4.3*	*9.4*	*19.1*	*28.6*	*38.6*
Care providers in emergency department:					
– Concern the care provider showed for your question or worries	*5.3*	*11.6*	*23.4*	*27.5*	*32.1*
– Care providers efforts to include you in decisions about treatment	*5.2*	*11.6*	*22.4*	*29.3*	*31.4*
– Information the care provider gave you about medications	*4.9*	*11.1*	*23.6*	*30.4*	*30.0*

Table 2. Continue

– Instructions the care provider gave you about follow-up care	*5.0*	*10.8*	*21.9*	*31.8*	*30.4*
– Degree to which care provider talked with you using words you could understand	*4.3*	*10.8*	*23.4*	*29.7*	*31.7*
– Explanations the care provider gave you about the condition	*5.5*	*12.8*	*20.8*	*27.1*	*33.9*
– Amount of time the care provider spent with you	*7.4*	*15.1*	*25.0*	*26.8*	*25.7*

Data are presented as raw percentage (n = 713 participants).

Table 3. Participants mean percentage satisfaction score in emergency department

Hospital	Domain of emergency department			
	Area	Staff courtesy	Care providers	Overall
Amiri	58.9±20.9	*83.2*±16.5	*82.1*±18.5	*80.9*±16.5
Mubarak	68.0±20.7	*74.4*±18.8	*72.2*±21.6	*71.4*±19.0
Farwaniya	65.1±20.9	*66.2*±22.2	*66.4*±20.6	*65.9*±20.6
Jahra	77.4±17.7	*83.4*±19.2	*78.9*±18.3	*79.7*±16.3
Adan	65.0±21.6	*75.8*±17.4	*73.3*±20.6	*71.1*±18.1
F(p)	11.78<0.001	17.24<0.001	9.97<0.001	12.20<0.001

Table 4. Distribution of participants according to degree of satisfaction and hospitals

Hospital	Satisfaction					
	Low		Intermediate		High	
	No.	%	No.	%	No.	%
Amiri	8	9.5	25	29.8	51	60.7
Mubarak	35	21.6	64	39.5	63	38.9
Farwaniya	33	23.6	58	41.4	49	35.0
Jahra	7	6.9	36	35.6	58	57.4
Adan	64	28.3	74	32.7	88	38.9
Total	147	20.6	257	36.0	309	43.3

Data are raw percentage $X^2 = 39.11$, $p < 0.001$. . . .

and pleasantness during examination", 46.4% for "Length of wait before going to an examination room", 56.1% for "Overall cheerfulness of our practice", 55.9% for "Overall cleanliness of our practice", 54.5% for "Likelihood of your recommending our practice to others", and 49.8% for "Frequency of being visit by physician".

Higher proportions of the participants were satisfied about staff courtesy in ED domain (ranging from 58.8% to 67.2%), than that of the ED area This domain included statements as "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", and "Concern the nurse showed for doing medical orders".

Regarding the domain of care providers in ED, 59.6% of participants were satisfied about "Concern the care provider showed for your question or worries", 60.7% about "Care providers efforts to include you in decisions about treatment", 60.4% about "Information the care provider gave you about medication", 62.2% about "Instructions the care provider gave you about follow-up care", 61.4% about "Degree to which care provider talked with you using words you could understand", 61.0% about "Explanations the care provider gave you about the condition", and only 52.5% about "Amount of time the care provider spent with you".

Participants opinion regarding ED area, staff courtesy and care provider in ED were assessed and transferred into percentage score. Table 3 demonstrates mean ± standard deviation of the overall and individual percentage score for each domain. Overall, the highest scores were registered in Amiri (80.9 ± 16.5) and Jahra (79.7 ± 16.3) and the lowest score was in Farwanyia (65.9 ± 20.6). The mean percentage score regarding the area of ED was higher in Jahra (77.5 ± 17.7) and Mubarak (68.0 ± 20.7) than the other hospitals. Regarding "staff courtesy" and "care providers" the highest scores were registered in Jahra (83.4 ± 19.2) and Amiri (83.2 ± 16.3); and (78.9% ± 18.3) and (82.1 ± 18.5) respectively. The difference between different hospitals was statistically significant for the overall score as well as for the individual domains (P< 0.001).

Table 4 illustrates the distribution of participants according to the level of satisfaction percentage score.

Significant higher proportions of high level of satisfaction were registered in Amiri (60.7%) and Jahra (57.4%) hospital, ($p< 0.001$).

DISCUSSION

The EDs are now accounting for more than 50% of all hospital admissions in the US. That has imposed a lot of strains on many facilities and increased demand for service, leading to elongation of waiting time, overcrowding, boarding patients in hallways, increased ambulance dispersion, and highly variable care and outcomes (Chuppe et al., 2009). PS is a major indicator of health care quality and health care services outcome in emergency (Zohrevandi and Tajik, 2014). The ED must achieve patient satisfaction by providing good quality services (Soleimanpour et al., 2011).

The study showed that the overall PS scores of ED differed significantly in the studied hospital. It was higher in Amiri (80.9%) and Jahra (79.7%) than in Mubarak (71.4%), Farwanyia (65.9%) and Adan (71.1%). Also, the proportions of high satisfaction reported in Amiri (60.7%) and Jahra (57.4%) were higher than in Mubarak (38.9%), Farwanyia (35.0%) and Adan (38.9%) hospitals. The higher satisfaction scores among patients in Amiri and Jahra hospitals could be explained by the new extension and renovation in these hospitals. Satisfaction score in the present study were higher than that reported from Poursina Hospital, Rasht, Iran (57.8%), (Zohrevandi and Tajik, 2014) and Solei and Tabriz, Iran (34.9%) (Soleimanpour et al., 2011) and goes in accordance with that of a study that was conducted in Kaiser Permanente Medical Centers, USA (the mean patient satisfaction score was 79.4% for the 1,002 patients) (Patel and Vinson, 2013). A study that was conducted at five large hospitals of the Tehran University of Medical Sciences revealed results that were to some extent similar to our findings whereas 85.6% and 41.8% of participants showed satisfaction above average and very good, respectively (Omidvari et al., 2008). However it was lower than that obtained in Hwassa (86.7%) that might be due to conducting that study in a high-level facility with relatively sufficient number of health staff (Worku and Loha, 2017). Also, it was lower than that reported in USA in 2009 which represents the experiences of 1,399,047 patients treated at 1,725 hospitals nationwide and revealed that overall patient satisfaction with the ED was 83.18% (Press Ganey, 2009).

It should be mentioned that the relationship between satisfaction and the quality of care is complex and it is affected by patients, physicians, and the service providers (Kinnersley et al., 2000). Patients' expectation of health care services has an impact on their satisfaction (McKinley et al., 2002; Bryan-Brown and Dracup, 1996). The mismatch between patients' expectations and received services leads to lower satisfaction (McKinley and Roberts, 2001). Patients with high and impossible expectations, as that in Kuwait, may be dissatisfied from optimal care, whereas patients with low expectations, even with partial care, may be satisfied (McKinley et al., 2002).

Regarding items related to care providers in ED, the result of the present study showed that within the domain of emergency department area, the lowest proportions of satisfaction regarding all items were 50% or more except for "comfort and pleasantness of the waiting area"(47.9%) and "length of wait going to an examination room" (46.4%). Within the domain of staff courtesy in ED, the lowest satisfaction level was related to "courtesy the registration staff" with higher levels of satisfaction regarding nurses, security staff, transfer staff, and care providers. Lastly, "the amount of time the care provider spent with patient" had the lowest satisfaction level within the domain of care providers in ED. That time was a crucial factor for dissatisfaction. This goes in accordance with some previous studies as that of Reihani who reported that the highest satisfaction level was restricted to speed of admission (81%), received medical treatment (76%), nursing skills (71.4%) and lowest satisfaction level was related to comfort and pleasantness of the waiting area (45.9%), time the physician spent with the patient (56.5%) and waiting time before being examined (62.8%) (Reihani et al., 2015). Also, Soleimanpour and his colleagues found that the highest level of satisfaction was related to physicians' courtesy and their behavior with the patients, security guard's and nurses courtesy with clients, whereas the lowest satisfaction level was related to the care provider discussion with the patient, waiting time to be examined and cleanliness of the environments (Soleimanpour et al., 2011). Hospitals should attempt to analyze their patients' comments to improve the comfort level in registration staff and registration waiting area and examination room.

Newcomb reported that patient satisfaction was largely affected by ED cleanliness and waiting time for the physician. PS scores can be influenced by promoting cleanliness, improving environments and arranging patient flow (Newcomb et al., 2017). Higher degrees of ED crowding at admission might be associated with lower real-time patient satisfaction (Wang et al., 2017). In their study, van der Linden et al stated that ED crowding and patient boarding are associated with increased mortality and decreased patient satisfaction. Perceived improved quality of care, shortening of length of stay, and enhanced peer consultation might improve PS. This might suggest a positive impact of additional medical specialists during busy shifts (van der Linden et al., 2017). Yildirim et al. found that lengthy waiting time was the most important reason for dissatisfaction whereas the quality of ED services was the most important cause of satisfaction of patients.(Yildirim et al., 2005)However, In another study, it was reported that reduction of waiting time had no effect on satisfaction level (Topacoglu et

al., 2004).

Skill of Communication appeared to has an important effect on ED management and may improve PS. Workshops on physician-patient communication can enhance physician's abilities in this area that in turns increases PS and decrease patient complaints concerning ED physicians (Lau, 2000). Also, It was suggested that the availability of staff and communication are two key aspects for the patient. For this reason, future efforts to improve the patient experience in the ED should provide training for staff to improve the communication and management of human relationships (Lovato et al., 2012).

To increase patients' satisfaction, providing a bigger area, increasing the number of beds, building an observation unit for the comfort of patients who stay a long time in the ED, increasing the amenities in the emergency waiting room for patients' families, and supervising the cleanliness of wards and toilets are essential as well as increasing the number of staff and services.

Apology is rendered to some limitations of the present study. In particular, some factors that might affect satisfaction level like the actual waiting time, patient condition and disease with different clinical manifestations were not considered. Patients with various clinical presentations might have various satisfaction levels. Also, the severity of cases may affect PS. Another limitation is using a person accompanying the patient to answer the questions might reflect his own opinion and that could be different from the patient him/herself.

CONCLUSION

Patient satisfaction toward emergency departments in Ameri and Jahra hospitals were more satisfied than Farwania, Mubarak and Adan hospitals. The lowest level of satisfaction was related to waiting time and time spent with the physician as well as the waiting area. To reduce patient dissatisfaction, attempt should be done to reduce the waiting time, provide comfort and clean environment, and increase the time of visit with physicians.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

REFERENCES

Abdosh B (2006). The quality of hospital services in eastern Ethiopia: Patient's perspective. Ethiop J Health Dev. 2006; 20(3): 199–200.

Aiello A, Garman A, Morris BS (2000). Patient satisfaction with nursing care: a multilevel analysis. QualManag Health Care. 312(3): 187–91.

Aiken LH, Sermeus W, Van den Heede K, Sloane DM, Busse R, McKee M, Bruyneel L, Rafferty AM, Griffiths P, Moreno-Casbas MT, Tishelman C, Scott A, Brzostek T, Kinnunen J, Schwendimann R, Heinen M, Zikos D, Sjetne IS, Smith HL, Kutney-Lee A (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: e 1717.

Bryan-Brown CW, Dracup K (1996). Outcomes, endpoints, and expectations. Am J Crit Care. 5(2): 87-9.

Chandra A, Sieck S, Hocker M, Gerardo CJ, Villani J, Harrison D, Boardwine A, Limkakeng A (2011).An observation unit may help improve an institution's Press Ganey satisfaction score. CritPathwCardiol. 10(2): 104-6..

Chuppe D, Kennedy C, McCaffrey K, Mulherin M, Mylod D (Eds). Saloane T. Emergency Department Press Ganey Pulse Report 2009. by Press Ganey Associates, 404 Columbia Place, South Bend, IN 46601. Accessed at: https://helpandtraining.pressganey.com/Documents_secure/Pulse%20Reports/2009_ED_Pulse_Report.pdf

Cleary PD, McNeil BJ (1988). Patient satisfaction as an indicator of quality care. Inquiry25(1): 25-36.

Damghi N, Belayachi J, Armel B, Zekraoui A, Madani N, Abidi K, BelabesBenchekroun A, Zeggwagh AA, Abouqal R (2013). Patient satisfaction in a Moroccan emergency department. Int Arch Med.6:20-27.

Jeanmonod R, Boyd M, Loewenthal M, Triner W (2010).The nature of emergency department interruptions and their impact on patient satisfaction. Emerg Med J. 27(5):376-9.

Kinnersley P, Anderson E, Parry K, Clement J, Archard L, Turton P, Stainthorpe A, Fraser A, Butler CC, Rogers C (2000). Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care. BMJ. 320(7241): 1043-8.

Krowinski W, Steiber S (1996). Measuring patient satisfaction. Chicago: American Hospital Publishing.

Lau FL (2000). Can communication skills workshops for emergency department doctors improve patient satisfaction? EmergMedJ. 17: 251-53.

Lovato E, Minniti D, Giacometti M, Sacco R, Piolatto A, Barberis B, Papalia R, Bert F, Siliquini R (2013). Humanisation in the emergency department of an Italian hospital: new features and patient satisfaction. Emerg Med J. 30: 487–491.

McKinley RK, Roberts C (2001). Patient satisfaction with out of hours primary medical care. Qual Health Care. 10(1): 23-28.

McKinley RK, Stevenson K, Adams S, Manku-Scott TK (2002). Meeting patient expectations of care: the major determinant of satisfaction with out-of-hours primary medical care? Fam Pract. 9(4): 333-8.

Moll van Charante E, Giesen P, Mokkink H, Oort F, Grol R, Klazinga N, Bindels P (2006). Patient satisfaction with large-scale out-of-hours primary health care in The Netherlands: development of a postal questionnaire. Fam Pract. 23(4): 437-43.

Newcomb P, Wilson M, Baine R, McCarthy T, Penny N, Nixon C, Orren J (2017). Influences on patient satisfaction among patients who use emergency departments frequently for pain-related complaints. J EmergNurs. 43(6): 553-559.

Omidvari S, Shahidzadeh A, Montazeri A, Azin SA, Harirchi AM, Souri H (2008). Patient satisfaction survey in the hospitals of Tehran University of medical Sciences, Tehran, Iran. Payesh.7(2):141-152, (Persian).

Patel PB, Vinson DR (2013). Physician e-mail and telephone contact after emergency department visit improves patient satisfaction: a crossover trial. Ann Emerg Med. 61(6):631-7.

Press Ganey (2009). Patient Satisfaction surveys are critical to improve performance and manage in new times. Accessed at: https://helpandtraining.pressganey.com/resources/patient-satisfaction-surveys

Reihani H, Pishbin E, Shaye ZA, Ebrahimi M, Bolvardi E, Delooi MT, Moghaddam DM, Vakili V (2015). Patient Satisfaction Analysis in Emergency Department in Imam Reza Hospital of Mashhad. Patient SafQualImprov. 3(1): 179-183.

Soleimanpour H, Gholipouri C, Salarilak S, Raoufi P, Vahidi RG, Rouhi AJ, Ghafouri RR, Soleimanpour (2011). Emergency department

patient satisfaction survey in Imam Reza Hospital, Tabriz, Iran. Int J Emerg Med. 4:2-8.
Taylor C, Benger J (2004). Patient satisfaction in emergency medicine. Emerg Med J. 21(5): 528-32.
Topacoglu H, Karcioglu O, Ozucelik N, Ozsarac M, Degerli V, Sarikay S, Cimrin AH, Soysal S (2004). Analysis of factors affecting satisfaction in the emergency department: a survey of 1019 patients. AdvTher. 21(6):380-388.
Trout A, Magnusson AR, Hedges JR (2000). Patient satisfaction investigations and the emergency department. What does the literature say? AcadEmerg Med. 7: 695-709.
van der Linden MC, de Beaufort RAY, Meylaerts SAG, van den Brand CL, van der Linden N (2017). The impact of medical specialist staffing on emergency department patient flow and satisfaction. Eur J Emerg Med. Jul 12. doi: 10.1097/MEJ.0000000000000487. [Epub ahead of print]
Wang H, Kline JA, Jackson BE, Robinson RD, Sullivan M, Holmes M, Watson KA, Cowden CD, Phillips JL, Schrader CD, Leuck J, Zenarosa NR (2017). The role of patient perception of crowding in the determination of real-time patient satisfaction at Emergency Department. Int J Qual Health Care. 29(5):722-727
Worku M, Loha Eskindie (2017). Assessment of client satisfaction on emergency department services in Hawassa University Referral Hospital, Hawassa, Southern Ethiopia. BMC Emerg Med. 17: 21-25.
Yildirim C, Kocoglu H, Goksu S, Gunay N, Savas H (2005). Patient satisfaction in a university hospital emergency department in Turkey. ActaMedica (Hradec kralove). 48(1):59-62.
Zohrevandi B, Tajik H (2014). A survey of patients' satisfaction in emergency department of Rasht Poursina hospital. Emergency. 2(4): 162-5.