

# Satisfaction Levels of Patients Who Were Followed In Emergency Department And Evaluation Of The Factors That Impact The Outcome

## Acil Serviste Takip Edilen Hastaların Memnuniyet Düzeyleri ve Buna Etki Eden Faktörlerin İncelenmesi

Fatih Alper Ayyıldız<sup>1</sup>, İsa Başpınar<sup>2</sup>, Ayşe Ayyıldız<sup>3</sup>, Yavuz Katırcı<sup>4</sup>

<sup>1</sup>Eskişehir City Hospital, Department of Emergency Medicine, Eskişehir, Turkey

<sup>2</sup>Istanbul Bağcılar Training and Research Hospital, İstanbul, Turkey

<sup>3</sup>Eskişehir Osmangazi University, Department of Anaesthesiology and Reanimation, Eskişehir, Turkey

<sup>4</sup>Ankara Keçiören Training and Research Hospital, Department of Emergency Medicine, Ankara, Turkey

### ABSTRACT

**Introduction:** With the spread of privatization and health insurance in the health sector in the world, the evaluation of the quality of the health service becomes important. Measurement of patient satisfaction is an important parameter in the evaluation of quality. The aim of this study was to evaluate the level of satisfaction in the emergency department (ED) of our hospital and to identify our shortcomings.

**Methods:** Demographic information of the patients who applied to Ankara Training and Research Hospital Emergency Department, ED application form, the time and urgency of the application, and the duration of the emergency service were recorded. The opinions of the patients were examined prospectively with 21 closed-ended questions measuring the physical conditions of the hospital, the health services provided and the quality of communication.

**Results:** The median age of 1044 patients participating in the study was 56 and 52.6% were male. It was determined that the level of satisfaction increased with increasing age ( $p<0.05$ ). Patients with a high level of education had a significantly higher dissatisfaction rate ( $p<0.05$ ) 73.9 % of patients were satisfied with the ED, was not satisfied with the ED of 9.8% and 16.3% undecided. When the patient's urgency score increases and having less waiting time, it was found to be high level of satisfaction ( $p<0.05$ ).

**Conclusion:** EDs have different dynamics than other units in terms of service and application. Different patient groups can apply for ED with a combination of one or more diseases. The main demand of the patients is to get diagnosis and treatment very quickly. However, it is not always possible to provide sufficient patient satisfaction due to time, staff and space constraints in EDs where workload is intense. Planning improvements for areas where complaints that lead to dissatisfaction in ED are concentrated will reduce ED patient dissatisfaction.

**Key words:** Patient satisfaction, emergency department

### ÖZET

**Giriş:** Dünyada sağlık sektöründe özelleştirme ve sağlık sigortasının yaygınlaşmasıyla birlikte sağlık hizmetinin kalitesinin değerlendirilmesi önem kazanmaktadır. Hasta memnuniyetinin ölçülmesi, kalitenin değerlendirilmesinde önemli bir parametredir. Bu çalışmanın hastanemiz acil servisinde(AS) memnuniyet düzeyini değerlendirmek ve eksiklerimizi tespit edebilmek için yapılması amaçlanmıştır.

**Yöntemler:** Ankara Eğitim ve Araştırma Hastanesi Acil Servisi'ne başvuran hastaların demografik bilgileri, acil servis başvuru formu, başvurunun zamanı ve aciliyeti, acil serviste kalış süresi, kayıt altına alındı. Hastaların görüşleri, hastanenin fiziki durumunu, verilen sağlık hizmetlerini ve iletişim kalitesini ölçen 21 adet kapalı uçlu soru ile prospektif olarak incelendi.

**Bulgular:** Çalışmaya katılan 1044 hastanın medyan yaşı 56 idi ve% 52,6'sı erkekti. Yaş ilerledikçe memnuniyet düzeyinin arttığı belirlendi. ( $P <0.05$ ) Eğitim düzeyi yüksek olan hastaların memnuniyetsizlik oranı anlamlı olarak daha yüksekti ( $p <0.05$ ) Hastaların% 73.9'u AS'den memnun, % 9.8 memnun değil ve% 16.3 kararsızdı. Hastanın aciliyet puanı arttığında ve bekleme süresi daha az olduğunda memnuniyet düzeyi yüksek bulundu ( $p <0.05$ ).

**Sonuç:** AS'lerin hizmet ve uygulama açısından diğer birimlerden farklı dinamikleri vardır. Bir veya daha fazla hastalığın kombinasyonu ile farklı hasta grupları AS'ye başvurabilir. Hastaların temel talebi çok hızlı bir şekilde teşhis ve tedavi alabilmektir. Ancak iş yükünün yoğun olduğu AS'lerde zaman, personel ve mekan kısıtlamaları nedeniyle yeterli hasta memnuniyetini sağlamak her zaman mümkün olmamaktadır.Acil serviste memnuniyetsizliğe yol açan şikayetlerin yoğunlaştığı alanlarda iyileştirmelerin planlanması acil servis hastalarının memnuniyetsizliğini azaltacaktır.

**Anahtar Kelimeler:** Hasta memnuniyeti, acil servis

## **INTRODUCTION**

With the spread of privatization and health insurance in the health sector in the world, the evaluation of the quality of the health service becomes important. Measurement of patient satisfaction is an important parameter in the evaluation of quality (1). Satisfaction can be defined as the degree of compatibility between the expectations of the patients and the service provided by the hospital, or the totality of the patients' expectations from the hospital. This is related to many factors such as the demographic characteristics of the patients and their relatives, the lifestyle of the people, their past experiences, their expectations from the future, the facilities of the hospital and the perception of the patients to be urgent (2).

In order to provide a quality health service, it is necessary to measure the quality level of the service received and this is done through studies to determine the level of satisfaction. Patient satisfaction is also a part of hospital success and quality. Treatment provided in a quality healthcare service should be valid, compliant with the criteria, applicable and safe (3). The most important processes in patient satisfaction are summarized as interest and courtesy, guidance, information, empathy, service speed, psychosocial support, competence of service providers, appropriateness of medical results and general quality (2).

All kinds of environmental and biological situations that threaten human life and health are included in the concept of emergency department (ED) (4). In addition to patients in need of urgent intervention for EDs in Turkey, many individuals who believe that examination-treatment procedures will be performed faster, who cannot make an outpatient appointment or who do not meet the definition of emergency patients also apply (5,6). The increase in applications leads to overcrowding of EDs; First of all, it can lead to a decrease in service quality and then in patient satisfaction.

This study was conducted to determine the demographic characteristics of patients over 18 years of age who applied to Ankara Training and Research Hospital ED, to measure patient satisfaction and to investigate the factors affecting this.

## **MATERIALS AND METHODS**

Following the approval of the ethics committee, the demographic information of the patients who applied to the Ankara Training and Research Hospital Emergency Department, the ED application form, the time and urgency of the application, and the duration of the emergency service were recorded. The opinions of the patients were examined prospectively with 21 closed-ended questions measuring the physical conditions of the hospital, the health services provided and the quality of communication. The data were analyzed in SPSS Windows version 18. Mean, median, standard deviation and frequency values were used in the descriptive statistics of the data. The distribution of variables was checked with the Kolmogorov Simirnov test. Kruskal Wallis test was used for the analysis of numerical non-parametric data, and chi-square test was used for the analysis of qualitative data. The interquartile range (IQR) was used to show the distribution. A value of  $p < 0.05$  was considered statistically significant.

Ethical approval for this study was obtained from the Ankara Training and Research Hospital Ethics Committee in 2015.

## **RESULTS**

The median age of 1044 patients participating in the study was 56 and 52.6% were male. It was determined that the level of satisfaction increased with increasing age ( $p < 0.05$ ).

282 (27%) of the patients were illiterate, 447 (42.8%) were primary school graduates, 169 (16.2%) were high school graduates, 100 (9.6%) were undergraduate, 46 (4.4%) was a master's degree. Patients with a high

level of education had a significantly higher dissatisfaction rate ( $p < 0.05$ ).

Eighty-eight (1.18%) of the patients had paid or private health insurance and other patients had general health insurance. The satisfaction level of the patients with paid and private health insurance was found to be significantly lower than the other group. ( $p < 0.05$ )

73.9 % of patients were satisfied with the ED, %9.8 was not satisfied with the ED and 16.3% were undecided. When the patient's urgency score increases and have less waiting time, it was found to be high level of satisfaction ( $p < 0.05$ ). It was found that 432 (41.4%) of the patients were brought to the hospital by ambulance and 291 of the patient were brought by a private vehicle. The lowest satisfaction rate was among those who came to the emergency department by ambulance. ( $p < 0.05$ ) The satisfaction levels of the patients who applied to the emergency department between shift hours (between 16.00 p.m and 8.00 a.m and the weekend) were found to be significantly lower than the others ( $p < 0.05$ ).

## **DISCUSSION**

EDs have different dynamics than other units in terms of service and application. Different patient groups can apply for ED with a combination of one or more diseases. The main demand of the patients is to get diagnosis and treatment very quickly. However, it is not always possible to provide sufficient patient satisfaction due to time, staff and space constraints in EDs where workload is intense (7).

Howard et al.(8) ED satisfaction level was 80.7% in a study conducted by Stevens et al.(9) the satisfaction percentage was 78.2% (9). In the study of Akkaya et al. (10), the general satisfaction level with ED was 93.3% and 91.4% was found in the study of Togun et al. (11). In our study, ED satisfaction level of the patients was 73.9% (satisfied and very satisfied). Although our general satisfaction rate is high, it is lower than the rates of other studies conducted in our country. The

main reason for this is that the patient and workload density is higher in our hospital's ED.

Arlı et al.(12) found no relationship between age and satisfaction in their study. In their study, Schwartz and Overton reported that patients over 65 years of age complained less in satisfaction studies conducted in ED (13). Liefeld et al.(14) has shown in the study that young adults complain more. In Thiedke's study, it was reported that older people and those with more chronic diseases were more satisfied with the health service they received (15). In our study, it was found that satisfaction increased with increasing age. We think that elderly patients are more satisfied due to their more tolerance, their greater emphasis on communication, and a historical respect for healthcare professionals. In addition, we believe that better analysis of past and present comparisons by elderly people contributes to the level of satisfaction, as older individuals witness more developments in the field of health.

Çağlayaner et al.(16) performed in Turkey and they found the rate of satisfaction with both the institution and the health service throughout the country inversely proportional to the level of education. Özcan et al.(17) found that as the education level of the patients increased, their satisfaction with ED decreased. Emhan et al.(18) stated that there is a significant relationship between education level and satisfaction with health services and as the level of education increases, satisfaction with health services decreases. In the literature, it has been stated that the patient group with a low education level and therefore little knowledge has low expectations and the satisfaction rate is high (19,20). In our study, it was determined that as the education level increases, patient satisfaction decreases. The main reason for this may be that educated individuals can use social media, have immediate access to information about possible diagnoses, have information about the subject, and have a high level of expectation.

Thompson et al.(21) stated in their study that health insurance does not change satisfaction. Al et al. (2) found that patients with social security are more satisfied than patients without social security . In our study, it was found that the satisfaction level of private and paid patient profiles was lower. The main reason for this may be that this patient group generally prefers private hospitals and the attention they receive there cannot be given in our hospital. Al et al.(2) found no relationship between the type of hospital admission and general satisfaction . In our study, outpatients were the group with high satisfaction levels from ED, while those who came by private vehicle or ambulance were the group with the lowest satisfaction. We are of the opinion that most of the outpatients who are admitted to ED are the group that is not an emergency, but the group whose satisfaction is high due to the fact that their expectations are met only to receive outpatient services.

Sandovski et al.(22) found that the patients who came to the hospital in the morning hours were more satisfied, and they attributed this to the fact that the existing staff was more employable and the daytime work was shorter at that time. Al et al. (2)reported that patients who come in the daytime are more satisfied. Burstein and Fleisher reported that patients who came in the evening hours were more satisfied in their study (23). In our study, it was found that the satisfaction level of patients who came to ED during the daytime was high, while the satisfaction level of the patients who came in the evening hours was low. The main reason for this may be that the personnel working during the daytime are more experienced, the number of people is more crowded and the problems with other clinics can be solved more easily. Although the intensity of ED increases in the evening, the delay of solutions can reduce satisfaction.

## CONCLUSION

Planning improvements for areas where complaints that lead to dissatisfaction in ED are concentrated will reduce ED patient dissatisfaction. The society should be conveyed to the individuals with the training to be given what the role of ED is, which patient group it should look at, which patient group is given priority and applications that are not suitable for ED will reduce the service quality. It is seen that the level of satisfaction will increase with the appropriate evaluation of patient expectations and improvements in this regard. Adjusting the patient care area and the number of staff working in the triage area according to the peak hours will reduce the complaints about the long waiting period.

**Conflict of Interest:** The authors declare that they have no conflict of interest.

**Funding:** No funding was taken for this study.

## REFERENCES

1. Yıldırım C, Kocoğlu H, Göksu S, et al. Patient satisfaction in a university hospital emergency department in Turkey. *Acta Medica (Hradec Kralove)*. 2005;48(1):59-62.
2. Al B, Yıldırım C, Togun İ, et al. Factors that affect patient satisfaction in emergency department. *JAEM* 2009; 8(1):39-44.
3. Heidegger T, Saal D, Nuebling M. Patient satisfaction with anaesthesia care: What is patient satisfaction, how should it be measured, and what is the evidence for assuring high patient satisfaction? *Best Pract Res Clin Anaesthesiol*. 2006;20(2):331-46.
4. Kyriacou DN, Ricketts V, Dyne PL, et al. A5-Year time study analysis of emergency department patient care efficiency. *Ann Emerg med*. 1999;34(3):326-35.
5. Oktay C, Çete Y, Eray O, et al. Appropriateness of emergency department visits in a Turkish university hospital. *Croat Med J* 2003;44:585–91.
6. Coleman P, Irons R, Nicholl J. Will alternative immediate care services reduce demands for non-urgent treatment at accident and emergency? *Emerg Med J* 2001;18:482–7.
7. Yiğit Ö, Oktay C, Bacakoğlu G. Analysis of the patient satisfaction forms about Emergency Department services at Akdeniz University Hospital. *Türkiye Acil Tıp Dergisi - Turk J Emerg Med* 2010;10(4):181-6.

8. Howard M, Goertzen J, Hutchison B, et al. Patient satisfaction with care for urgent health problems: a survey of family practice patients. *Ann Fam Med* 2007;5:419-24.
9. Stevens M, Reininga IH, Boss NA, et al. Patient satisfaction at and after discharge. Effect of a time lag. *Patient Educ Couns*. 2006;60(2):241-5.
10. Akkaya EG, Bulut M, Akkaya C. The Factors Affecting the Level of Patients' Satisfaction of the Applicants for Emergency Service Tr J Emerg Med 2012;12(2):62-8.
11. Toğun İ. Acil Serviste hasta memnuniyeti (Uzmanlık tezi). Gaziantep:Gaziantep Üniversitesi Tıp Fakültesi Acil Tıp Anabilim Dalı; 2007.
12. Arlı ŞK, Aslan FE, Purisa S. Patient complaints evaluation stages-II in emergency setting: implementing of the evaluation form. *Türkiye Acil Tıp Dergisi - Turk J Emerg Med* 2008;8(4):164-9.
13. Schwartz LR, Overton DT. Emergency department complaints: A one-year analysis. *Ann Emerg Med*. 1987;16:857-61.
14. Liefeld JP, Edgcombe FCH, Wolfe L. Demographic characteristics of Canadian consumer complainers. *J Consumer Affairs* 1975;9:72-80.
15. Thiedke CC. What do we really now about patient satisfaction? *Fam Pract Manag* 2007; 33-6.
16. Çağlayaner H, Uysal A, Dinç D, et al. Bir kent hastanesine ayaktan başvuruların sağlık hizmetlerini değerlendirmesi. *Türk Aile Hek Derg* 1999; 3: 62-8.
17. Özcan H, Özdemir O, İnci E, et al. Evaluation of Patients Admitted to the Emergency Department Satisfaction. *HSP* 2015;2(2):149-55.
18. Emhan A, Bez Y, Dülek Ö. Bir Üniversite Hastanesine Başvuran Hastaların Memnuniyet Düzeyleri. *Dicle Tıp Dergisi* 2010; 37:241-7.
19. Kahraman N. Ege üniversitesi tıp fakültesi hastanesi acil servise yapılmış şikâyet başvurularının geriye dönük incelenmesi (Uzmanlık tezi) İzmir- 2012.
20. Hall MF. Pres I: Keys to patient satisfaction in the emergency department: results of a multiple facility study. *Hosp Health Serv Adm*. 1996 Winter;41(4):16-33.
21. Thompson DA, Yarnold PR, Williams DR, et al. Effects of actual waiting time, perceived waiting time, information delivery, and expressive quality on patient satisfaction in the emergency department. *Ann Emerg Med*.1996;28(6):657-65.
22. Sandovski U, Salman H, Bergman M, et al. Patients satisfaction with the staff function in an emergency department. *Eur J Emerg Med*. 2001;8(2):117-22.
23. Burstein J, Fleisher GR. Complaints and compliments in the pediatric ED. *Pediatr Emerg Care*. 1991; 7:138-140.

Cite as: Ayyıldız FA, Başpınar İ, Ayyıldız A, et al. Satisfaction Levels of Patients Who Were Followed In Emergency Department And Evaluation Of The Factors That Impact The Outcome. *Eskisehir Med J*. 2021; 2 (1): 1-5.