



## ARE GERIATRIC EMERGENCY SERVICES NECESSARY? A SURVEY STUDY PROVIDING AN EVALUATION FROM THE PERSPECTIVE OF PATIENTS AND THEIR RELATIVES

GERİATRİK ACİL SERVİSLER GEREKLİ MİDİR? HASTA VE HASTA YAKINLARININ GÖZÜNDEN DEĞERLENDİRME SAĞLAYAN BİR ANKET ÇALIŞMASI

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### ABSTRACT

**Introduction:** Elderly patients' emergency department admission is increasing and constitutes 1/3 of all admissions. The aim of the study is to determine the factors affecting geriatric patients' satisfaction in the emergency departments, and to increase their satisfaction with our recommendations.

**Methods:** Data were collected with face-to-face interview technique to the elderly patients or their companions in the emergency department for 50 days, prospectively. In the questionnaire, there are questions about the sociodemographic characteristics of the patients such as age, gender, educational status and the design and architecture of the emergency department, and its suitability for the elderly patient.

**Results:** There are 359 individuals accepted to join the face-to-face interview survey. The majority of the participants (93,87%, n=337) thought that there should be a separated emergency department for geriatrics, 95,26% (n=342) of them stated that if a geriatric emergency department was established, they would prefer, 99,72% (n=358) of them wanted to be informed at every step of the treatment and follow-up, 96,10% (n=345) of them argued that they need a separate physical space, 95,82% (n=344) of them stated that the area should be noise-free, 98,05% (n=352) of them wanted an examination bed where they could easily lie down/get up, 83,00% (n=298) of them wanted to have a walker/cane that they could use, and 98,05% (n=352) of them wanted unobtrusive lighting.

**Conclusion:** In the emergency medical care of geriatric patients, identifying their needs and improving service delivery will contribute to increase the quality of patient care.

**Keywords:** Geriatric emergency medicine, seniors health, satisfaction, emergency care

### ÖZET

**Giriş:** Acil servise başvuran yaşlı hastaların sayısı giderek artmaktadır ve tüm acil servis kabullerinin 1/3'ünü oluşturmaktadır. Çalışmanın amacı, geriatric hastaların acil servislerdeki memnuniyetlerini etkileyen faktörleri belirlemek ve önerilerde bulunarak memnuniyetlerini artırmaktır.

**Yöntemler:** Veriler, 50 gün boyunca acil servise başvuran yaşlı hastalara veya refakatçilerine anket formunun yüz yüze görüşme tekniği ile prospektif olarak toplanmıştır. Ankette, hastaların yaş, cinsiyet, eğitim durumu gibi sosyodemografik özellikleri ile acil servis tasarımı ve mimarisi ve yaşlı hastaya uygunluğu hakkında sorular bulunmaktadır.

**Bulgular:** Yüz yüze yapılan ankete 359 kişi katılmayı kabul etti. Katılımcıların büyük çoğunluğu (%93,87, n=337) geriatri için ayrı bir acil servis olması gerektiğini düşünürken, %95,26'sı (n=342) geriatric acil servisin kurulması durumunda bunu tercih edeceklerini, %99,72'si (n=358) tedavi ve takibin her aşamasında bilgilendirilmek istediklerini, %96,10'u (n=345) ayrı bir fiziksel alana ihtiyaç duyduklarını, %95,82'si (n=344) alanın gürültüsüz olması gerektiğini, %98,05'i (n=352) kolayca yatıp kalkabilecekleri bir muayene yatağı istediklerini, %83,00'ı (n=298) kullanabilecekleri bir yürüteç/baston istediklerini ve %98,05'i (n=352) gözü yormayan bir aydınlatma istediklerini belirtmişlerdir.

**Sonuç:** Geriatric hastaların acil servis tıbbi bakımlarında ihtiyaçlarını belirlemek ve bu ihtiyaçlar doğrultusunda hizmet sunumunu iyileştirmek, hasta bakım kalitesinin artırılmasına katkıda bulunacaktır.

**Anahtar Kelimeler:** Geriatric Acil Tıp, Yaşlı Sağlığı, Memnuniyet, Acil Bakım

### INTRODUCTION

The life expectancy and elderly population rate are increasing worldwide with each passing day. With the increasing elderly population, the number of elderly patients admitted to emergency department (ED) is also increasing every day and constitutes 1/3 of all admissions. The most frequent and important point of contact of the elderly with the health system are EDs. Improving the care of elderly patients in the EDs has been recognized by American College of Emergency Physicians (ACEP) as one of the top 10 research priorities (1). Gynecology and obstetrics and

pediatric EDs are widely available due to the physiological, biological, and psychosocial needs of each age group. The geriatric ED concept, which aims to provide more qualified emergency health services to the rapidly growing age group over 65, has been developed over the last 15 years and started to become widespread. The geriatric ED may be a separate physical area (a separate triage scale, a special area where physical and psychosocial needs are met) specially designed for older adults, or it may be an integrated area in the ED where arrangements are made to meet the needs of geriatric patients (2).

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American Geriatric Society and ACEP have recently published guidelines on geriatric care in the ED setting. The purpose of these guidelines is to summarize and standardize best practices for improving the care of elderly patients. These guidelines consist of many subheadings such as personnel, equipment, training, policies and procedures, monitoring, and performance improvement measures (3). Although there are practices in our country from time to time such as elderly patient-friendly hospitals, there is no ED application developed only for elderly patients.

Patient satisfaction may vary depending on the benefits patients expect from the service they receive, the performance they expect from the service, and the compliance of the service with socio-cultural values. Measurement of health services performance can be carried out by academicians as part of evaluation research, with patient groups where the quality of health services is routinely monitored, through the work of health commission members or by service providers (4).

Considering the literature, although there are studies evaluating the satisfaction levels of patients admitted to the ED worldwide, studies examining the needs of special populations such as the geriatric age group are limited (5-7). In this context, it is important to determine the expectations of patients aged 65 and over from EDs and identify the difficulties they experience during their admissions to

improve the quality of service and care provided. In our country, to the best of our knowledge, there is no study examining the expectations and satisfaction of geriatric patients from the EDs.

This study aimed to determine the factors affecting satisfaction in terms of patients aged 65 and over who apply to the EDs and to increase patient satisfaction with the recommendations to be made afterward. It aimed to determine whether an emergency service for this patient group is necessary, to improve the ED care and services provided to this special population by defining the expectations of patients aged 65 and over from the EDs and the difficulties they experience in the EDs.

## METHODS

### Data collection

Our study was planned prospectively and cross-sectionally. The sample size was determined based on the results of a previous study in which patient satisfaction was 73%. It was calculated that 359 patients would be needed based on the expected satisfaction rate ranging from  $\pm 10\%$ , 0.05, and power=80%. Survey practitioners interviewed randomly selected patients or their relatives who met the inclusion criteria every day for 24 hours for 50 days.

The inclusion criteria of the participants in the study were to apply to the ED as a patient over the age of 65 or to be

**Table 1:** Geriatric emergency department expectation survey

|   |
|---|
| In your opinion, should there be a separate emergency room for patients aged 65 and over? (similar to child emergency, maternity emergency) |
| If there is such an emergency room, would you prefer it for admission?  |
| Do you think that staff working in such an emergency room should receive additional training for the needs of this age group?               |
| Do you think geriatric emergency medicine should be a separate specialty?   |
| Would you like to be informed at every step?  |
| If there was an emergency room with the following features, would you prefer it for admission?  |
| Separate room and physical space for the elderly  |
| Separate triage and waiting area for the elderly  |
| Noiselessness of the waiting area   |
| Free internet access in the waiting area  |
| Basic food, beverages, water, and tea-coffee vending machines in the waiting area   |
| Television in the waiting area  |
| Comfortable seats in the waiting area   |
| Being able to lie down on/get up easily from the examination bed  |
| Walker/cane   |
| Reading glasses   |
| Lockers   |
| Easy access to toilet and sink  |
| Lighting that does not strain the eye   |
| Low noise level in the observation area   |
| The area being clean  |
| Having a companion  |

The companion of a patient over the age of 65. Patients under 65 years of age, patients who were unconscious or could not be communicated with for any reason, and patients arriving at the emergency room by ambulance were excluded from the study. Their companions were asked to participate in their place.

After the ethics committee approval obtained from Antalya Training and Research Hospital Clinical Research Ethics Committee (approval number:3/8, approval date: 13/02/2025), data were collected by filling out the previously prepared questionnaire form with face-to-face interview technique to the patients aged 65 and over or their companions who applied to the ED of our hospital for various reasons between 14 February 2025 and 4 April 2025. In the study, a questionnaire form prepared by taking into account the literature was used. In the first part of the questionnaire, there are questions about the sociodemographic characteristics of the patients such as age, gender, educational status. The second part of the survey includes the design and architecture of the ED, and its suitability for the elderly patient.

### Questionnaire development

For questions on the patients' expectations about the system, after a literature review, a questionnaire was drafted and a beta test was conducted to explore patients' views on the system. The questionnaire consisted of 21 items, three of which were related to sociodemographic data. For responses other than sociodemographic data, a 3-point Likert-type scale consisting of "I agree, undecided/I do not know, I disagree" options was used (Table 1).

### Statistical Analysis

Study data were analyzed using SPSS (Statistical Package for the Social Sciences) 23.0 programs. Numerical data were expressed as mean  $\pm$  standard deviation and frequency data were expressed as percentages. All hypotheses were established as two-sided.

## RESULTS

The majority of the survey respondents were female (297, %82,72), and only 62 were male (%17,27). While the ages of the patients varied between 65-95 years, the ages of the participants who were patient companions were between 45-90 years. The mean age of the participants was 74,6 years. The educational status of the participants consisted mostly of primary school graduates (60.72%, n=218). Looking at the results of the survey, the majority of the participants (93,87%, n=337) thought that there should be a separate ED for patients aged 65 and over. Again, the majority (95,26%, n=342) stated that if a geriatric ED was established, they would prefer this ED for themselves. Over 90 percent (92.75%) (n=333) of respondents thought that geriatric ED staff should receive additional training for the

needs of this age group. Also, 85.51% (n=307) of the respondents thought that geriatric emergencies should be a separate sub-branch. The rate of those who wanted to be informed at every step of the treatment and follow-up process was 99.72% (n=358).

Looking at the questions about the physical characteristics of the geriatric ED, the majority of the participants (96,10%, n=345) argued that they should have a separate room and physical space for the elderly. Again, 94,70% (n=340) of the participants stated that there should be a separate triage and waiting area for the elderly. 95.82% (n=344) of the participants stated that the waiting area should be noise-free. The rate of participants who wanted free internet access in the waiting area was 69.35%, the rate of those who wanted basic food/beverages, water, and tea-coffee vending machines was 87.18% (n=313), the rate of those who thought that there should be a television was 78.83% (n=283), and the rate of those who wanted comfortable seats was 95.54% (n=343). 98.05% (n=352) of the participants wanted an examination bed where they could easily lie down/get up. 83.00% (n=298) of the participants wanted to have a walker/cane that they could use in the geriatric ED, the rate of those who wanted reading glasses was 66.01% (n=237), the rate of those who wanted lockers was 72.42% (n=260), the rate of those who wanted easy access to the toilet and sink was 95.82% (n=344), the rate of those who wanted unobtrusive lighting was 98.05% (n=352), the rate of those who wanted low noise level in the observation area was 96.93% (n=348), and the rate of those who wanted the areas to be clean was 97.77% (n=351).

The rate of participants who wanted a companion to accompany them was 96.37% (n=346). All responses to the questionnaire are shown in Table 2.

## DISCUSSION

The 81% response rate to our survey was similar to other recent surveys on similar topics in the literature (4). Our questionnaire, which was developed in the light of the current literature according to both the experiences and needs of older adults in the ED, was designed to develop an ED designed mainly for the geriatric age group and to underline the general needs of this age group during emergency medical care reception.

The physical environment of the ED has a significant impact on older adult admissions. When the literature is reviewed, patients feel uneasy due to lack of cleanliness, insufficient lighting, noise, etc., and they often complain about the chaotic environment of the emergency room and lack of privacy. These factors lead to a poor patient experience in the ED that makes patients feel less valuable (1). In our study, similar to the literature, it is seen that physical areas specially designed for the elderly are preferred by the elderly.

**Table 2:** Distribution of responses to satisfaction items in the emergency care system questionnaire

| Questions   | I agree<br>n (%) | I disagree<br>n (%) | I don't know/<br>Undecided<br>n (%) |
|---|------------------|---------------------|-------------------------------------|
| In your opinion, should there be a separate emergency room for patients aged 65 and over? (similar to child emergency, maternity emergency) | 337 (93.87)      | 2 (0.55)            | 20 (5.57)                           |
| If there is such an emergency room, would you prefer it for admission?  | 342 (95.26)      | 7 (1.94)            | 10 (2.78)                           |
| Do you think that staff working in such an emergency room should receive additional training for the needs of this age group?               | 333 (92.75)      | 17 (4.73)           | 9 (2.50)                            |
| Do you think geriatric emergency medicine should be a separate specialty?   | 307 (85.51)      | 31 (8.63)           | 21 (5.84)                           |
| Would you like to be informed at every step?  | 358 (99.72)      | 0 (0.00)            | 1 (0.27)                            |
| If there was an emergency room with the following features, would you prefer it for admission?  |                  |                     |                                     |
| Separate room and physical space for the elderly  | 345 (96.10)      | 2 (0.55)            | 12 (3.34)                           |
| Separate triage and waiting area for the elderly  | 340 (94.70)      | 8 (2.22)            | 11 (3.06)                           |
| Noiselessness of the waiting area   | 344 (95.82)      | 5 (1.39)            | 10 (2.78)                           |
| Free internet access in the waiting area  | 249 (69.35)      | 87 (24.23)          | 23 (6.40)                           |
| Basic food, beverages, water, and tea-coffee vending machines in the waiting area   | 313 (87.18)      | 30 (8.35)           | 16 (4.45)                           |
| Television in the waiting area  | 283 (78.83)      | 58 (16.15)          | 18 (5.01)                           |
| Comfortable seats in the waiting area   | 343 (95.54)      | 7 (1.94)            | 9 (2.50)                            |
| Being able to lie down on/get up easily from the examination bed  | 352 (98.05)      | 0 (0.00)            | 7 (1.94)                            |
| Walker/cane   | 298 (83.00)      | 38 (10.58)          | 23 (6.40)                           |
| Reading glasses   | 37 (66.01)       | 109 (30.36)         | 13 (3.62)                           |
| Lockers   | 260 (72.42)      | 81 (22.56)          | 18 (5.01)                           |
| Easy access to toilet and sink  | 344 (95.82)      | 3 (0.83)            | 12 (3.34)                           |
| Lighting that does not strain the eye   | 352 (98.05)      | 3 (0.83)            | 4 (1.11)                            |
| Low noise level in the observation area   | 348 (96.93)      | 3 (0.83)            | 8 (2.22)                            |
| The area should be clean  | 351 (97.77)      | 1 (0.27)            | 7 (1.94)                            |
| Having a companion  | 346 (96.37)      | 3 (0.83)            | 10 (2.78)                           |

n:number

Patients presenting to the ED would like to know what is happening at the moment and what will happen next. In this way, the obscurity disappears, and they feel safer (8). Similarly, in our study, the participants stated that they wanted to be informed at every step of their ED admissions.

In the literature, there are a number of recommendations to improve the ED admissions of geriatric patients. These are: to be trained on the devices they should bring with them (cane, glasses, walker, etc.), to focus on basic comfort measures, to provide assistance, especially when there are no family members to accompany the elderly adult, to

encourage them to use a notebook that can record their questions and contain discharge instructions, to improve the quality of signs in the ED to make it easier to find the way, to improve patient communication, including adopting respectful, non-ageist discourse while addressing older adults, and to improve the ED environment on issues such as cleanliness, lighting, and privacy (1, 2, 9-11).

In the chaotic environment of the ED, geriatric patients cannot receive adequate medical care. In geriatric ED developed for this purpose, positive improvements have been detected in the literature in parameters that objectively



evaluate patient care such as length of stay, consultation rate and completion time, re-admission within 72 hours, and delirium (8, 12, 13). On the other hand, if a new health facility/application is developed, generally no one asks the beneficiary for their opinion and does not adequately evaluate their needs and requirements. In a dynamic environment such as the ED, determining the expectations of patients and their relatives in all kinds of service improvements and improving them in line with these expectations will increase the quality and standards of patient care (14, 15).

Emergency health service is a multidimensional concept that should be addressed with social issues such as the percentage of elderly and other special groups in the population in the region where it is located, and the socioeconomic status of the admittants. Emergency services that are developed in a way that appeals to the general public may cause delays in the solution and increase health service costs. The elderly population in our country is also increasing day by day. With the findings we have obtained, it is necessary to create special areas for geriatric patients in emergency services, especially in regions where the elderly population is dense in our country.

### Limitations

Our survey as such is promising in terms of architectural improvement, but it alone is insufficient for the elderly to receive better service in EDs. The repeatability of the questionnaire or its responsiveness to current changes has not been tested.

This study includes 3-month data, and the reliability of our findings is expected to increase as more data are collected and analyzed.

The results of this study cannot be generalized for patients whose general condition is poor (and therefore not included), who do not speak Turkish, or who come by ambulance. Arrival by ambulance has a profound effect on the level of anxiety and satisfaction in terms of ED. The responses of the participants reflect how the situation was perceived at that moment during their stay in the ED. The high rate of discontinuation in individuals who cannot concentrate on completing a questionnaire in a risky, stressful situation during data collection may lead to a lack of generalization in this group.

### CONCLUSION

Especially in the emergency medical care of geriatric patients, identifying their needs and improving service delivery in this direction will contribute to increasing the quality of patient care. In summary, geriatric patients want a separate and noise-free emergency room, specially trained staff, information at every step, free internet/food/beverages, an examination bed where they can lie down and get up easily, a walker/cane, reading glasses, a locker, easy access

to the toilet and sink, lighting that does not strain the eyes, and a companion to accompany them.

**Ethics Committee Approval:** Ethics committee approval obtained from Antalya Training and Research Hospital Clinical Research Ethics Committee (approval number:3/8, approval date: 13/02/2025)

**Informed Consent:** A written informed consent form was obtained from all study patients or their relatives.

**Authorship Contributions:** Idea/Concept:AA, Design:AA, Supervision:RNO, Data Collection and Processing:RNO, Analysis or Interpretation:AA, RNO, Literature Search:AA, Writing:AA, RNO, Critical Review: RNO, References and Fundings:-Materials: -.

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