

Expectations and needs of family of mechanically ventilated patients at an emergency department: A pilot study

Acil serviste mekanik ventilasyon uygulanan hastaların ailelerinin beklentileri ve ihtiyaçları: Pilot çalışma

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ABSTRACT

Aim: Emergency services are healthcare areas that treat people urgent health problems. Emergency health services have developed almost throughout human history. It has become increasingly important in recent years. **Method:** Our study investigated the family members of critically ill patients with mechanical ventilation at an emergency department (ED) of a university hospital in Türkiye. We used a derived scale with 13 items and the face-to-face technique to determine the family's expectations and needs while waiting in the ED. **Results:** The mean age of the 70 participants in the study was 46.6 ± 12.5 , and 67.1% (n= 47) were male. 38.6% of the patient's relatives were the patient's children, and 32.9% were the patient's siblings. 31.4% (n= 22) of the participants were high school graduates. The reliability of the mini scale we derived was good (Cronbach's alpha value = 0.871). The most important expectations of patient family members were: 1. providing information about the patient at any time, 2. informing about the patient's status by the doctor, and 3. being with the patient throughout the entire treatment (91.4%, 81.4%, and 75.7% of the participants, respectively). Additionally, having space to sleep in the waiting room was considered very important by 41% of the patient's relatives. **Conclusion:** We believe that meeting the expectations and needs of the relatives of critically ill patients, who experience poor outcomes more frequently, will create a positive environment in the ED based on trust and thus increase satisfaction with both the ED and the hospital.

ÖZ

Amaç: Acil servisler, insanların acil sağlık sorunlarını tedavi eden sağlık alanlarıdır. Acil sağlık hizmetleri neredeyse insanlık tarihi boyunca gelişmiştir. Son yıllarda giderek daha da önemli hale gelmiştir. **Gereç ve Yöntem:** Çalışmamızda Türkiye'deki bir üniversite hastanesinin acil servisinde (AS) mekanik ventilasyon uygulanan kritik hastaların aile üyelerini inceledik. Ailenin AS'de beklerken beklenti ve ihtiyaçlarını belirlemek için 13 maddeden oluşan türetilmiş bir ölçek ve yüz yüze teknik kullandık. **Bulgular:** Çalışmaya katılan 70 katılımcının yaş ortalaması $46,6 \pm 12,5$ olup %67,1'i (n=47) erkekti. Hastanın yakınlarının %38,6'sı hastanın çocukları ve %32,9'u hastaların kardeşleriydi. Katılımcıların %31,4'ü (n=22) lise mezunuydu. Türettiğimiz mini ölçeğin güvenilirliği iyiydi (Cronbach'ın alfa değeri = 0,871). Hasta yakınlarının en önemli beklentileri: 1. hasta hakkında her an bilgi verilmesi, 2. doktor tarafından hastanın durumu hakkında bilgi verilmesi ve 3. tedavi boyunca hastanın yanında olunması idi (sırasıyla katılımcıların %91,4, %81,4 ve %75,7). Ayrıca, bekleme odasında uyumak için alan olması, hasta yakınlarının %41'i tarafından çok önemli olarak değerlendirildi. **Sonuç:** Sık kötü sonuçlar yaşayan kritik hasta yakınlarının beklenti ve ihtiyaçlarının karşılanmasının, acil serviste güvene dayalı olumlu bir ortam yaratacağına ve böylece hem acil servisten hem de hastaneden duyulan memnuniyeti artıracacağına inanıyoruz.

Key Words:
Emergency Department,
Expectation Level, Family,
Critically Ill Patients

Anahtar Kelimeler:
Acil Servis, Beklenti Düzeyi, Aile,
Kritik Hastalar

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DOI:
10.52880/sagakaderg. 1709258

Received Date/Gönderme Tarihi:
01.06.2025

Accepted Date/Kabul Tarihi:
26.06.2025

Published Online/Yayınlanma Tarihi:
30.06.2025

INTRODUCTION

Emergency services are healthcare services that treat people urgent health problems. Orr et al. defined emergency services as places where medical procedures are carried out promptly for people exposed to life-threatening situations such as accidents and where these people are monitored (Orr et al., 1991). The word 'emergency' literally means medical intervention that needs to be done immediately in cases where a person's health deteriorates, and ever since humanity has existed on Earth, it has always been possible to encounter accidents or situations requiring emergency interventions. As a result, emergency healthcare services have always existed and have become increasingly important (Kyriacou et al., 1999).

The treatment of critically ill patients is essential for them; it is vital for their families to see that the patient is treated well and correctly and to be adequately informed of the rights and satisfaction of the patients. If the patients' relatives' expectations and needs are not considered, problems may arise in the emergency department (ED) operation and the safety of physicians and nurses. There are many incidents of violence in healthcare. When the incidents are explored, it is revealed that some of them are due to relatives of the patients not being adequately informed (Ocak & Aşaroğulları, 2019). Also, a critical evaluation criterion of healthcare services is patient and family satisfaction. Hospitals are among the leading institutions that provide 24-hour EDs in our country, as in the rest of the world. Among the satisfaction criteria for those receiving healthcare services in EDs, welcoming and guiding the patient, informing the patient and their relatives, complying with the rules of courtesy, empathy, psycho-social support, and service speed are essential (Dolek et al., 2005).

Studies and scales to determine the expectations and needs of patient relatives have been conducted for intensive care patient relatives. However, no such scale has yet been developed specifically for use in ED settings. This study was conducted to determine the needs of family members of critically ill patients who were mechanically ventilated in the ED.

METHOD

Study setting and population

This research was conducted at Erciyes University Faculty of Medicine Hospital's ED between September 15, 2023 and December 30, 2023. The principal investigator recorded demographic data and 13-item survey questions to determine the expectations and needs of family members of critically ill patients through

face-to-face interviews. All volunteer participants gave written informed consent. Inclusion criteria for the study included: 1. being a first-degree relative of a critically ill patient being followed up with mechanical ventilation for non-traumatic reasons, 2. being eighteen or older. Patients who died in the ED and relatives of critically ill patients who were followed up for less than 6 hours were not included in the study. During the study period, 178 patients were followed up with mechanical ventilation in the ED for reasons other than trauma, and 70 family members of patients who met the criteria were included.

The Critical Care Family Needs Inventory (CCFNI) scale is a 45-item Likert-type questionnaire developed to evaluate the relatives of intensive care patients (Molter, 1979). In our study, a 13-item mini-scale was derived from this scale. The evaluation was made with four-point Likert-type questions. Accordingly, the answers were arranged as "1=not important", "2=somewhat important", "3=important", and "4=quite important".

Ethics Committee Approval

Approval was received for this study from the Erciyes University Ethics Committee (Date: 11.09.2023 Issue: 58/2023).

Statistical analysis

The reliability of the mini-scale was analyzed using Cronbach's alpha correlation coefficient, with values between 0.7 and 0.9 considered very good. The Kolmogorov-Smirnov test was used to determine that the distribution of the age variable was normal. Categorical data were given as numbers and percentages.

RESULTS

The mean age of the 70 participants in the study was 46.6 ± 12.5 , and 67.1% (n=47) were male. 38.6% of the patient's relatives were the patient's children, and 32.9% were the patient's siblings. Of the participants in the study, 1 (1.4%) was literate, 5 (7.1%) were elementary school graduates, 11 (15.7%) were middle school graduates, and 22 (31.4%) were high school graduates, 9 (12.9%) had an associate degree, 17 (24.3%) had a bachelor's degree, and 5 (7.1%) had a master's degree (Table 1).

The reliability of the mini scale we derived was good (Cronbach's alpha value = 0.871). The results of the mini-scale are given in Table 2. It was essential for 64 (91.4%) patients' relatives to be informed about their patients whenever they wanted. Being present with the patient throughout the treatment was considered very important for 53 (75.7%) of the patient's relatives. The presence of a religious official at all times during the patient's treatment

Table 1. Socio-Demographic Characteristics of The Individuals Included in The Study

Features	n	%
Gender		
Male	47	67.1
Female	23	32.9
Age		
18-44	30	42.9
45-59	28	40.0
60-74	12	17.1
Education status		
None	0	0.0
Literate	1	1.4
Elementary school	5	7.1
Middle school	11	15.7
High school	22	31.4
Associate degree	9	12.9
Bachelor's degree	17	24.3
Master's degree	5	7.1
Closeness to the patient		
Partner	9	12.9
Sibling	23	32.9
Child/Children	27	38.6
Parents	11	15.7

Table 2. Expectations of The Patient's Relatives

Expectations	Insignificant n (%)	Minimally important n (%)	Important n (%)	Very important n (%)
How important is it for you to be informed about your patient whenever you want?	0 (0.0)	0 (0.0)	6 (8.6)	64 (91.4)
How important is it for you to be with the patient throughout the entire treatment?	0 (0.0)	3 (4.3)	14 (20.0)	53 (75.7)
How important is it for you to have a religious official with the patient?	22 (31.4)	18 (25.7)	21 (30.0)	9 (12.9)
How important is it for you that the information is provided by the doctor?	0 (0.0)	0 (0.0)	13 (18.6)	57 (81.4)
How important is it for you to have a system where patient results are automatically shared?	1 (1.4)	8 (11.4)	16 (22.9)	45 (64.3)
How important is it for you to be able to monitor your patient remotely with a video camera?	2 (2.9)	7 (10.0)	20 (28.6)	41 (58.6)
How important is it for you that the waiting room is comfortable?	5 (7.1)	9 (12.9)	22 (31.4)	34 (48.6)
How important is it to you to be offered free internet access while you wait?	9 (12.9)	20 (28.6)	22 (31.4)	19 (27.1)
How important is it for you to have a place to be alone in the waiting room?	12 (17.1)	18 (25.7)	20 (28.6)	20 (28.6)
How important is it for you to have a place to sleep while you wait?	9 (12.9)	16 (22.9)	16 (22.9)	29 (41.4)
How important is it for you to have a psychologist provide charge-free support while you wait?	8 (11.4)	18 (25.7)	19 (27.1)	25 (35.7)
How important is it for you to have access to a free restroom?	2 (2.9)	5 (7.1)	24 (34.3)	39 (55.7)
How important is it for you to have free food and drinks available?	6 (8.6)	21 (30.0)	20 (28.6)	23 (32.9)

was considered very important for only 9 (12.9%) of the patient's relatives. Providing information about the patient by the doctor was considered very important for 57 (81.4%) of the patient's relatives. A screen where the patient's test results are automatically shared was considered very important for 45 (64.3%) of the patient's relatives. Monitoring the patient remotely with a video camera was very important for 41 (58.6%) of the patient's relatives. The comfort of the waiting room was evaluated as very important for 34 (48.6%) patients' relatives. Free internet availability while waiting was necessary for 19 (27.1%) of the patient's relatives. Being alone in the waiting room was very important for 20 (28.6%) of the patients' relatives. Having space to sleep in the waiting room was considered very important by 29 (41.4%) of the patient's relatives. 25 (35.7%) of the patient's relatives considered free psychologist support very important. Accessible restroom availability was evaluated as very important by 39 (55.7%) of the patient's relatives. 23 (32.9) of the patients assessed relatives' free food and beverage availability as very important. This study emphasizes the critical importance of family-centered approaches in emergency care settings, particularly for relatives of mechanically ventilated patients.

DISCUSSION

EDs ensure public safety, security, and health by handling and resolving emergencies. At the same time, EDs have serious responsibilities toward patients' families. In the study by Taylor et al., informing patients' relatives and waiting times were considered the most critical factors in a systematic evaluation of satisfaction in the ED (Taylor et al. (2004). In the study by Tokur et al. in 2016, informing the patients' relatives was determined to be the criterion that provided the highest satisfaction to the patient's relatives, with 88% satisfaction reported (Tokur et al. 2016). In our study, consistent with these studies, relatives obtaining information about their patients was considered very important and was evaluated as the most essential expectation and need. In fact, among all survey items, information obtainment received the highest rate of expectation.

In a study conducted by Kosko et al., relatives of 45 critically ill patients were interviewed, and the most critical expectations were the careful and compassionate attitude of nurses providing treatment services to their patients, the ability to see their patients at least once a day and to receive constant information via phone or pager (Kosko and Warren 2000). In a study conducted by Erol et al., the desire of healthcare professionals to inform patients' relatives and to be with the patients was emphasized (Erol et al. 2022). In our study, consistent

with this study, approximately three-fourths of the patient's relatives evaluated it as essential to be with the patient constantly throughout the treatment. However, it does not seem possible for patient relatives to be with critically ill patients throughout their treatment, mainly due to the risk of infection. For this purpose, particular cabins that can be monitored from outside can be built, but we believe that not all emergency services are economically suitable.

It is known that the relatives of critically ill patients have more needs. Studies have shown that healthcare professionals serving critically ill patients are exposed to more violence than healthcare professionals serving ward patients (Ağaçkiran et al., 2023). A survey by Redley et al. showed that information given by a physician, providing chaplain support, the availability of an environment to be alone while waiting, the comfort of the waiting room, food and beverage availability, and restroom availability were brought to the attention of relatives of critically ill patients in Australia (Redley and Beanland (2004). In our study, although the relatives of the patients wanted to be able to monitor their patients remotely, this is inappropriate regarding patient privacy. Also, in our research, the relatives of the patients wanted to follow the examination results automatically, and this request has increasingly started to be met by many institutions today. In addition, in our study, the comfort of the waiting room was considered necessary by the relatives of the patients, and many of them requested free internet support. Free psychologist support was also a service requested by the relatives of the patients to a large extent. Although food and beverage support while waiting was not considered very important, the need for restrooms was significant.

Limitations

Our research's limitations are due to a relatively small study group, and prospective studies with more people are needed to support it.

CONCLUSION

The expectations and needs of critically ill patients' families are significant issues for the EDs. Meeting these expectations and requirements is also essential regarding patient relative satisfaction and increasing emergency department quality. In our study, providing information about the patient's status at any time by the doctors and being with the patient throughout the entire treatment by family members was critical. Additionally, having space to sleep in the waiting room was considered very important by the patient's relatives.

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