SAĞLIK ve HEMŞİRELİK YÖNETİMİ DERGİSİ
JOURNAL of HEALTH and NURSING MANAGEMENT
Özgün Araştırma
Original Article

How to Provide Patient Safety in the Emergency Department? A Qualitative Study Emergency Nurses' Experiences

Acil Serviste Hasta Güvenliği Nasıl Sağlanır? Acil Servis Hemşirelerinin Deneyimlerine İlişkin Niteliksel Bir Çalışma

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Cite as: Keskin Kızıltepe S, Kurtgöz A. How to provide patient safety in the emergency department? A qualitative study emergency nurses' experiences. Sağlık ve Hemşirelik Yönetimi Dergisi. 2024;11(1):22-29. **DOI:** 10.54304/SHYD.2024.99705

Abstract

Aim: This study aimed to explore the experiences of emergency nurses regarding patient safety.

Method: This study, with a qualitative design, was carried out between December 2022 and March 2023 in the emergency department of a university hospital. We conducted in-depth interviews with a purposive sample of 14 emergency nurses. The data were analyzed using thematic analysis.

Results: Of the participants, 50% were male. Their age ranged from 25 to 40 years (mean 32.2, SD=5.99). Through the data analysis, two themes and three sub-themes were identified: (I) difficulties specific to the emergency department, (II) factors affecting patient safety the in emergency department.

Conclusion: Nurses stated that they often took individual and immediate preventive measures regarding patient safety. However, rather than individual prevention, strategies and plans are required to create an institutional patient safety culture. At the same time, administrators should adopt a proactive approach to patient safety and create a supportive environment for nurses regarding patient safety.

Keywords: Emergency department, patient safety, emergency nurses, qualitative.

Öz

Amaç: Bu çalışmada, acil servis hemşirelerinin hasta güvenliğine ilişkin deneyimlerinin açıklanması amaçlanmıştır.

Yöntem: Niteliksel desendeki bu çalışma, bir üniversite hastanesinin acil servisinde Aralık 2022-Mart 2023 tarihleri arasında yürütülmüştür. Çalışmada 14 acil servis hemşiresinden oluşan amaçlı bir örneklem ile derinlemesine görüşmeler yapılmıştır. Veriler, tematik analiz yöntemi kullanılarak analiz edilmiştir.

Bulgular: Katılımcıların %50'si erkek olup yaşları 25 ile 40 arasında değişmektedir (ortalama 32,2, SS=5,99). Verilerin analizi sonucunda iki tema ve üç alt tema belirlenmiştir: (I) Acil servise özgü sorunlar (II) Acil serviste hasta güvenliğini etkileyen etmenler.

Sonuç: Hemşireler, hasta güvenliği konusunda sıklıkla bireysel ve anlık önlemler aldıklarını belirtmişlerdir. Ancak bireysel önlemlerden çok kurumsal bir hasta güvenliği kültürü oluşturmaya yönelik stratejilere ve planlamalara gereksinim duyulmaktadır. Bununla birlikte, hasta güvenliğine ilişkin yöneticilerin proaktif bir yaklaşım benimsemeleri ve hemşireler için destekleyici bir ortam yaratmaları önerilmektedir.

Anahtar Sözcükler: Acil servis, acil hemşireleri, hasta güvenliği, nitel.

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Recieved / Geliş: 12.09.2023 ▪ **Accepted / Kabul:** 27.03.2024 ▪ **Published Online / Online Yayın:** 30.04.2024

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Introduction

Patient safety is directly related to the quality of care, so many health institutions try to build a "culture of safety" to create a safe care environment, minimize patient harm, and prevent unwanted patient-related events. Safety culture has a multifactorial structure that includes the beliefs, perceptions, competencies, behaviours, and attitudes of those within the institution (Lee et al., 2023). The literature reports that patient safety is affected by many factors, such as teamwork, cooperation, workload, experience, working conditions, job satisfaction, communication, and expectations and attitudes of managers (Churruca et al., 2021; Lee et al., 2023). In addition, human-related factors, management systems and strategies, and organizational and environmental factors are also associated with patient safety (Alshyyab et al., 2019). Patient safety is also affected by social, economic, and cultural factors. Studies report that in developed countries, factors such as transparency, communication, teamwork, and strong leadership characterize patient safety, while in others, factors such as insufficient personnel, physical constraints, inadequate materials, and hygiene problems lead to unsafe and undesirable situations in health care delivery (Listiowati et al., 2023; Soola et al., 2022).

Emergency departments (EDs) are chaotic environments where a wide variety of patients are admitted, patient turnover rates are high, and many practices are performed rapidly under time pressure (Castner, 2019). ED personnel work under great stress, and factors such as lack of personnel, time constraints, and workload create situations that threaten patient safety (Alshyyab et al., 2019). Resolving problems that put patient safety at risk in the ED requires increasing the competencies of ED nurses, building an institutional culture of safety, using technology to support diagnosis and workforce, and controlling the internal and external environment (Castner, 2019).

The literature on patient safety indicates that studies with quantitative designs have used measurement tools, and studies with qualitative designs have been few in number (Diz et al., 2022; Churruca et al., 2021). The multidimensional nature of patient safety necessitates the use of qualitative methods (Listiowati et al., 2023; Sarkhosh et al., 2022). The literature emphasizes that since the ED and its work environment have different characteristics, there is a need for studies with qualitative designs examining the views of ED nurses on patient safety (Skutezky et al., 2022; Milton et al., 2023). The number of such studies has been limited in Türkiye (Aydemir and Koç, 2023; Soyer et al., 2022). This study was conducted to obtain more in-depth data on this subject. Our findings will be useful in planning appropriate strategies and creating an institutional culture of patient safety to improve patient safety in the ED.

Method

Study Aim and Design: This study aimed to explore the experiences of ED nurses related to patient safety using a descriptive qualitative approach.

Study Sample: We conducted in-depth interviews with 14 emergency nurses by using a semi-structured form. Purposive sampling method was used to select the participants. The inclusion criteria were having at least three years of experience in the ED as a nurse. In designing and reporting the study, we followed the consolidated criteria for reporting qualitative research (COREQ) checklist (Tong et al., 2007).

Data Collection: Data were obtained from nurses working in the ED of a university hospital. There were 28 nurses in the ED working 8-hour (08-16), 16-hour (08-24), and 24-hour shifts.
Data were collected via in-depth interviews between December 2022 and March 2023. In-depth interviews allow nurses to better express themselves and share their experiences and feelings. Nurses were asked three open-ended questions about their practices related to patient safety in the ED, the factors limiting patient safety, and their suggestions for building a culture of safety. In order to ensure effective communication, the interviews took place in a quiet room in the ED. We employed a semi-structured interview form prepared by the researchers in line with the literature (Alqattan et al.,2021; Churruca et al.,2021; Diz et al.,2022). We proceeded with open-ended questions asked by the first author, who is a trained clinical researcher with a PhD and experience in qualitative designs. They began by explaining the purpose of the study. A code name was assigned to each participant and used instead of names during the interview and analysis process. All interviews were recorded using an audiotape. The interviews took approximately 30-40 minutes. The number of participants was determined according to the "data saturation" principle used in qualitative research. Interviews were ended when data saturation was reached.

Data Analysis: The participants' responses were recorded and transcribed for analysis. The data were analysed using Braun and Clarke's thematic analysis method (Braun & Clarke, 2006). First, all interviews were transcribed verbally. The researcher carefully read the data several times and analysed them independently. Then, we examined them line by line and assigned codes to paragraphs or segments of the text. After data coding, we divided them into meaning units to compile meaningful expressions. Next, themes and sub-themes were revealed and reviewed by all researchers. In addition, themes and sub-themes were scrutinized independently by an expert who was not involved in the study. Final changes to the themes and sub-themes were made according to suggestions.

Trustworthiness: To ensure trustworthiness, we followed Lincoln and Guba's four criteria: credibility, dependability, transferability, and confirmability (Lincoln & Guba, 1985). Credibility, the accuracy of the participant's answer, was ensured via a voice recorder, and all interviews were conducted by the first author. For dependability, interview transcriptions were analysed independently by all authors and by an expert who did not take part in the study. For confirmability, participants' statements were repeated and summarized in interviews, which were checked for accuracy. For transferability, participants' descriptions and reflection notes were taken verbatim.

Ethical Considerations: Ethics committee approval was obtained before starting the study. The participants were informed about the study and voice recordings and that the audio recordings would not be shared with anyone and would only be used for study purposes. Written and verbal informed consent was obtained from the participants before starting the study.

Limitations: The study was conducted only in a single university hospital. The data were limited by the working conditions of the university hospital and the experiences of the nurses. The semi-structured form was prepared by the authors by researching the literature. Pilot interviews were not conducted to assess the understandability of the interview questions. Another limitation of this study was the lack of member checking.

Results

Table 1. Distribution of participants' demographic data

Participants	Age	Professional experience (years)	ED experience (years)	Educational status
Participant 1	38	15	11	Bachelor's degree
Participant 2	27	3	3	Bachelor's degree
Participant 3	28	10	3	Associate degree
Participant 4	28	5	5	Master's degree
Participant 5	37	14	12	Bachelor's degree
Participant 6	27	5	4,5	Bachelor's degree
Participant 7	40	17	3	Bachelor's degree
Participant 8	25	5	5	Bachelor's degree
Participant 9	39	7	3	Bachelor's degree
Participant 10	32	4,5	4,5	Bachelor's degree
Participant 11	24	5	5	Associate degree
Participant 12	29	7	7	Associate degree
Participant 13	40	14	5	Bachelor's degree
Participant 14	37	13	8	Master's degree

Of the participants, 50 % were male and their mean age was 32.2 (SD=5.99) years. Participants had an average of 8.89 (4.76) years of professional experience and 5.64 (SD=2.89) years of ED experience.

Our data analysis revealed that there were two themes and three sub-themes in the interviews of the nurses. Table 2 demonstrates the themes, sub-themes, and codes in detail.

Table 2. Themes, sub-themes, and codes based on emergency nurses' patient safety experiences

Themes	Sub-themes	Codes
Difficulties specific to the ED		Crowded, time-pressure, stressful environments
		Excessive workload- high patient turnover
		Unpredictable and challenging situation
		High rate of patient transfers in and out of the unit
		Having many staff from different disciplines
		Impact of visitors (presence of visitors/families in some areas)
Factors affecting patient safety in ED	Structural (physical) constraints/factors	Deficiency of privacy; insufficient isolation rooms
		Areas (triage and green area) are far from each other
		The resuscitation room is not in an appropriate location
		Separate outpatient and ambulance entrances
	Institution- and manager-related factors	Lack of sufficient personnel
		Detrited materials due to patient turnover, better-quality materials, insufficient materials
		Inadequate security
		Approach to incident reporting (punitive attitude in incident reporting)
		Failure to set standards specific to the ED
		Lack of incentives for patient safety for all staff, patient/family
	Employee-related factors	Lack of experience
		Lack of information about patients
		Lack of communication
		Lack of teamwork
		Differences in training/practices
		Performing tasks outside the job description
		Excessive number of new (junior) interns; not following the rules/not receiving training

All participants received in-service training on patient safety. In the analysis of the data, two themes and three sub-themes were determined (Table 2).

Theme 1: Difficulties specific to the ED
Participants emphasized that the ED was mostly crowded and stressful. Nurses stated that they were faced with unpredictable and challenging situations and had to work with different professionals under time pressure. The high patient turnover prevented them from performing some standard practices (putting a wristband on the patient for identification, writing labels on serums, catheter care, etc.). In addition, they reported that the rapid transfers to the ED from outside and the high number of patient transfers to the clinics within the hospital also negatively affected patient follow-up.

"The ED has a high turnover. There are many transfers in and out of the ED at the same time, for example, the patient goes for an ultrasound... In these transfers, the staff may not return the patient to the same bed; the location changes. Sometimes we may not be able to put wristbands on patients due to turnover. Such situations pose a great risk for patient safety" (Participant 8).

According to the participants, the presence of their families in some areas sometimes compromises patient safety, even delays the intervention, and distracts the team.

We let patient families in, except for the red zone. Sometimes physicians even allow them to enter the red zone. The patient's family can take the patient to the restroom as we care for another patient (resuscitation, trauma patient, etc.), and the patient may fall in the restroom or faint in the corridor. We encounter such situations when we let patient families in, and the responsibility here falls to us again" (Participant 6).

Theme 2: Factors affecting patient safety
Three sub-themes were determined based on nurses' statements regarding the factors affecting patient safety, structural (physical) constraints/factors, institution- and manager-related factors, and employee-related factors.

Sub-theme 1: Structural (physical) constraints/factors
According to the nurses, the ED was not physically designed appropriately, which negatively affected its functioning and working conditions. Nurses stated that there were not enough isolation rooms with appropriate standards for patient protection, and when there was more than one patient who needed to be isolated, they had to follow this patient in the same area as other patients, which posed a serious risk for everyone in the ED. Moreover, they stated that they knew that some vulnerable groups, such as abused or violent patients, should be followed up in a separate area. However, they could not ensure patient privacy due to physical conditions, and in such cases, they took individual and immediate precautions with their own efforts.

"There is an isolation room in our ED, but it does not meet the standards. It is far from the ED, we cannot see the patient in that room, and there is no monitoring system. If there was a monitor tracking system, we could at least notice a change in their rhythm". When there is more than one infectious patient, such as patients with tuberculosis or Covid-19, we cannot pay much attention to the protection of other patients, because we do not have enough isolation rooms..." (Participant 2).

Sub-theme 2: Institution- and manager-related factors
Participants stated that factors, such as insufficient personnel, inadequate security, difficulties in supplying materials, inadequate equipment, and the use of low-quality equipment threaten patient safety by negatively affecting patient care, follow-up, and interventions. At the same time, nurses usually stated that managers had a punitive attitude. They also emphasized that everyone working in the institution should be involved in building a culture of patient safety and that it is important to train health professionals, patients, and their families on this.

"At the moment, in ED does not have a stretcher for obese patients. Our stretchers are all the same size. I recently followed an intubated obese patient who was hanging all over the stretcher; the stretcher side rails could not hold the patient. We also do not have enough patient-appropriate blood pressure cuffs" (Participant 11).

"When a patient arrives in an ambulance, it is sometimes followed by 10 family members. Such a crowded environment affects both our safety and our intervention. We have a serious security gap. While we perform medical interventions on patients, their families get agitated and interfere with us. I.e., they can prevent patient care. This threatens patient safety. There should be security so that we can perform our job comfortably" (Participant 10).

"Falls, wrong doses of medication, etc. Unfortunately, these can happen in the ED. Nurses are often hesitant to fill out the incident report forms because they think they will be penalized. At this point, the managers should not solve the problem on an individual/nurse basis. They need to question and solve the problem that caused this incident in the first place. The nurse administered the wrong dose, but why... Was she too tired, or was her workload excessive? They do not question this. They say the nurse is careless and replace her. This approach needs to change" (Participant 14).

"I think that not only health professionals but also patients or their families should actually be aware of the patient safety culture. For example, we lift the side rail, but the family takes it down without asking us because they do not realize that it prevents falls. They remove it to make the patient more comfortable, to make it easier to get off, or because it hurts the leg. I think patient families should be well informed about patient safety" (Participant 1).

Sub-theme 3: Employee-related factors
Participants stated that personal (lack of experience, not being open to learning, etc.), team-related problems, and differences in training/practices pose a risk to patient safety. They emphasized that they had difficulties communicating with physicians. Taking on responsibilities outside their job descriptions increased their workload. One disadvantage of having a large number of personnel in the ED was the inability to build teamwork.

"*I think one of the most important things in ensuring patient safety is communication. A breakdown in communication puts everyone at risk. For example, patient handovers need to be done properly; medication orders need to be clear. There is also a lack of understanding of teamwork between physicians and nurses.* (Participant 6).

"*There is resistance to change in both patients and colleagues. For example, the safest area for IM injection is the ventro-gluteal area, but patients or nurses who do not know this do not want this area to be used. If the hospital or individuals are resistant to change, it is very difficult to break this resistance. Even patients can be resistant to this. They say, 'You gave us the injection in the wrong place'. We experience this a lot. Maybe if posters/banners are hung in the ED about this, their awareness will increase"* (Participant 7).

Discussion

Our study aimed to examine the experiences of emergency nurses in reltion to patient safety using a qualitative design. Our findings highlight difficulties specific to the emergency department. Conditions that make nursing care and patient follow-up difficult, such as crowded rooms, high patient turnover, unpredictable-challenging situations, workload, and high rates of patient transfers, are common situations that pose a risk for patient safety in the ED. In our study, nurses stated that they could not even identify patients due to high patient turnover and that they had difficulty in patient follow-ups and providing nursing care. Many studies conducted in the emergency department have reported problems such as waiting for a long time for transfer, insufficient oral or written information during patient transfer, inadequate medication orders, duplicate orders, and inadequate recording of patient information (Churruca et al., 2021; Hyvämäki et al., 2023; Mahmoud et al., 2023). Our study found that easy access to the ED by patient families and other personnel threatens patient safety, and measures should be taken accordingly. The presence of anxious, stressed, and crowded families at the bedside and their interference in nurses' practices may lead to violations of patient safety practices. In this context, we think that security practices in EDs should be strict and that only a limited number of attendants should be admitted to the ED. The study conducted by Alqattan et al. (2021) with emergency nurses found that the presence of patient families in the ED for 24 hours negatively affected nurses and that time restrictions should be imposed on visitors. Rapid patient turnover and heavy workload pressure require ED personnel to be quick thinkers, decision-makers, and implementers. Therefore, it is important for ED personnel to be practical and experienced. In Türkiye, most nurse managers think that young and newly graduated nurses should be assigned to the ED and similar units (e.g., intensive care units) because they are intense units. However, as our findings show, the initial assignment of inexperienced personnel to the ED poses a serious threat to patient safety. Studies emphasized that qualified personnel should work in the ED to prevent medical errors, establish good communication, and have a good command of the ED's functioning (Alqattan et al., 2021; Miguel et al., 2023). It is of great importance for hospital and unit managers to be aware of this and to act accordingly to ensure patient safety.

The literature emphasized that in-service training on patient safety should be continuous and carried out in a way to includes the staff and managers working in the institution (Sarkhosh et al., 2022). Patient safety incident reports will enable them to be addressed in more detail and appropriate strategies to be developed (Hyvämäki et al., 2023; Skutezky et al., 2022). Participants said that managers should integrate the patient safety culture into the institution and raise awareness among all staff there. The literature emphasized that patients and their families should be authorized to participate in patient safety and health services and that patient safety cannot be achieved merely by institutional staff (Listiowati et al., 2023; Sarkhosh et al., 2022). In line with these findings, protective measures appropriate to the characteristics of the ED should be taken, and all stakeholders (managers, healthcare professionals, patients, and their families, etc.) should cooperate and receive training in order to ensure patient safety practices in a qualified manner in the ED. Some data (instution- and manager-related factors and employee-related factors) in our findings are similar to other studies in the literature. These factors are generalizable and not specific to the emergency department that affect patient safety. In a study conducted by Han et al. among emergency room nurses, it was found that psychological safety, night shifts, and reporting of adverse patient safety events jeopardize patient safety (Han et al., 2020). Unlike our findings, the literature indicates that factors such as leadership, reporting, situational awareness, distribution of roles/task management, feedback, teamwork, management support, and communication also affect patient safety (Riberio et al., 2022; Gabr, 2019). Additionally, in simulated environments and acute care settings, these concepts have been shown to affect individuals clinical performance and are associated with patient safety (Cooper et al., 2016; Peltonen et al., 2020).

Conclusions and Recommendations

In our study, data including difficulties specific to the ED and factors affecting patient safety in the ED were obtained. Specific to the emergency department, it was found that high patient transfers, patient turnover, exposure of employees to unpredictable/challenging situations under time constraints, insufficient isolation rooms, working with different disciplines, and the impact of visitors make nursing care and patient follow-up difficult. However, it has been determined that structural/managerial and employee-related factors also affect patient safety. In many cases, it has been found that nurses often take individual and immediate prevention regarding patient safety.

Managers should integrate the culture of patient safety into the institution and raise awareness among all staff there. It was also essential to raise awareness and work with patients and their families. In order to ensure quality and safe care in the ED, it is important to ensure the social and institutional development of a patient safety culture and to make plans accordingly. Hospital administrators and unit managers should adopt a proactive approach to patient safety, allow staff to freely voice their concerns and suggestions, and create a supportive environment for nurses. Different types of measures and strategies should be developed in high-risk units, such as the ED, in terms of patient safety.

Author Contribution: The authors confirm contribution to the paper as follows; study conception and design: SKK, AK; data collection: SKK; analysis and interpretation of results: SKK, AK; draft manuscript preparation: SKK, AK; All authors reviewed the results and approved the final version of the manuscript.
Ethics Committee Approval: Ethical permission was obtained from the Düzce University Scientific Research and Publication Ethics Committee (Date: 05.12.2022 - Number: 2022/208).
Conflict of Interest: The authors declare that there is no conflict of interest.
Funding: The authors declare that the study has no financial support.
Informed Consent: Written and verbal consents were obtained from the participants before starting the study.

Yazarlık Katkısı: Yazarlar makaleye katkılarını şu şekilde beyan etmektedir; Çalışma tasarımı: SKK, AK; Veri toplama: SKK; Veri analizi: SKK, AK; Makale yazımı: SKK, AK; Yazarlar sonuçları gözden geçirdi ve makalenin son halini onayladı.
Etik Kurul Onayı: Düzce Üniversitesi Bilimsel Araştırma ve Yayın Etiği Kurulu tarafından onaylanmıştır (Tarih: 05.12.2022 - Karar No: 2022/208).
Çıkar Çatışması: Yazarlar herhangi bir çıkar çatışması olmadığını beyan ederler.
Finansal Destek: Yazarlar, çalışmanın finansman desteği olmadığını beyan eder.
Katılımcı Onamı: Araştırmaya başlamadan önce katılımcılardan yazılı ve sözlü onamları alındı.

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