

Assessment of Relatives' Satisfaction in the Emergency Department: A Cross-Sectional Study Using a Survey

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ABSTRACT

Introduction

Emergency Departments (EDs) are high-pressure environments where both patients and their relatives face numerous challenges. While patient satisfaction has been widely studied, the satisfaction of relatives remains underexplored, despite their crucial role in supporting patient care and decision-making. Recognizing relatives as key actors in the care process helps improve communication and reduce stress. This study aimed to assess the satisfaction of relatives of patients treated in the ED.

Methods

A prospective, descriptive study was conducted at the ED of the Mahmoud Yaacoub Center for Urgent Medical Assistance in Tunis from October 2023 to January 2024. Satisfaction was assessed using a 25-item structured questionnaire. Included participants were adult relatives directly involved in patient care who gave informed consent. Assessed dimensions included reception and management, information provided and overall satisfaction.

Results

The study included 169 relatives (mean age 41 ± 13 years, 52.1% female). Relationships included parents (26%), offspring (18.9%), and siblings (14.8%). Overall satisfaction was high: 78% were satisfied with the overall care, 82% with the initial reception, 74% with waiting times, 80% with accessibility, and 77% with information clarity. No significant associations were found between age or education and overall satisfaction. However, relatives from healthcare or paramedical backgrounds showed significantly higher satisfaction with the registration process compared to non-healthcare relatives ($p = 0.043$ OR = 2.64; 95% CI: 1.03–6.77).

Conclusion

The study supports strengthening the involvement of relatives in strategies aimed at improving ED care quality.

Keywords: Emergency Department - Health Care Surveys - Family Satisfaction

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Conflicts of interest: The authors declare no conflict of interest

Introduction

Emergency Departments (EDs) are high-pressure, overcrowded environments where skilled professionals provide care for critically ill patients^{1,2}. The fast-paced, overcrowded, and unfamiliar ED environment can cause stress and frustration for patients and families, often leading to feelings of alienation and reduced involvement in care.

Recognizing relatives' as integral to the critical care process, and striving to support both patients and their loved ones has been proven to be a crucial aspect of comprehensive patient care^{3,6}. Understanding and addressing the needs, emotions, and expectations of relatives of critically ill patients, along with gathering their feedback, helps ED professionals improve communication, enhance care quality, build trust, and reduce distress or aggressive behavior^{7,8}.

Factors influencing family satisfaction in the ED include the clarity and frequency of communication with healthcare professionals, the perceived empathy and responsiveness of the care team, and logistical considerations, such as waiting times and access to information. Negative experiences in these areas can lead to significant dissatisfaction, potentially undermining trust in the healthcare system and discouraging future engagement with healthcare services. Conversely, positive interactions characterized by clear communication, empathy, and a supportive care environment can enhance the family's understanding of the patient's condition, foster greater cooperation with healthcare providers, and contribute to a more favorable overall experience.

However, there is a notable gap in research focusing on ED, where the unique dynamics of acute care can significantly impact patient and relatives' experience. Moreover, the satisfaction of relatives of patients in the ED has been even less frequently assessed, despite their crucial role in supporting patient care and decision-making. While patient satisfaction has been extensively studied, the satisfaction of patients' relatives, particularly within the high-pressure environment of the ED, remains under-explored⁹. In the ED, where patients frequently present with acute, often life-threatening conditions, the patient may be unable to actively participate in their care, placing greater importance on the involvement and perspectives of their relatives¹⁰.

This study aimed to assess the satisfaction of patients' relatives in a Tunisian ED and to identify the factors influencing their satisfaction.

Methods

Study Design

This study was a monocentric, prospective, observational, descriptive study conducted at the ED of Mahmoud Yaacoub Center for Urgent Medical Assistance in Tunis. The study was conducted over a four-month period, from October 2023 to January 2024.

The study targeted adult relatives, aged 18 years or older, who were directly involved in the care of a patient during their visit to the ED. Eligible participants included parents, offspring, spouses, siblings, other family members, friends, or neighbors accompanying the patient. Relatives were not included if they were under 18, declined to participate, were accompanying incarcerated patients, or were related to patients who passed away during their ED stay. Surveys were excluded if they had a non-response rate exceeding 20%, defined as more than five unanswered items out of the 25-question survey. Additionally, responses related to patients who left the ED before completing their care were excluded from the final analysis. Informed consent was obtained from all participating relatives after explaining the study's purpose. Explicit verbal consent was also obtained from patients to allow accompanying relatives to receive medical information during the ED visit.

Study Protocol

A comprehensive family satisfaction survey was specifically developed for this study to assess the experience of relatives in the ED. The survey was inspired from existing surveys in other departments and was designed for a local context. It was validated by a committee of practitioners^{11,14}. The survey consisted of 25 items grouped into four main domains: relative's background information, reception and management by the healthcare team, information provided to the relative and overall satisfaction (appendix 1). The first domain collected demographic and contextual data such as age, sex, relationship to the patient, educational level, frequency of ED visits, healthcare employment status, distance to the hospital, and reason for the visit. The second domain assessed aspects of care delivery including reception and consultation delays, registration procedures, length of stay, staff accessibility, interaction quality, and understanding of healthcare roles. The third domain focused on the information provided to relatives, evaluating clarity, honesty, satisfaction with communication

from doctors and paramedics, and consistency of information. The final domain addressed overall satisfaction with the reception, management, and care provided to the patient. Most items were rated on a 4-point Likert scale ranging from "Very Dissatisfied" to "Very Satisfied," while four items were structured as yes/no questions. The survey was developed in formal Arabic and French to enhance accessibility and administered at the end of the patient's ED care, with only one relative per patient invited to participate. On-call physicians or paramedical staff explained the study, obtained informed consent, guided respondents through the process, and ensured confidentiality and anonymity. The survey was administered after the patient's condition was stabilized and before the patient's discharge from the ED.

In this study, relatives were defined as individuals accompanying the patient to the ED, including immediate or extended family members, friends,

neighbors, or any primary caregiver involved in the patient's support. Age groups were categorized based on the World Health Organization (WHO) classification: Adolescents and Young Adults (15–24 years), Adults (25–64 years), and Older Adults or Seniors (65 years and older)¹⁵.

The study received approval from the institutional ethics committee prior to initiation.

Statistical analysis

Statistical analysis was conducted using SPSS software, version 25.0, with a significance level set at $p < 0.05$. Descriptive statistics included frequencies, percentages, means, standard deviations, medians, interquartile ranges, and overall range. Analytical methods involved correlation and regression analyses to explore potential associations between various factors and levels of satisfaction among relatives.

Results

Descriptive study

A total of 169 relatives were included in our study (Figure 1).

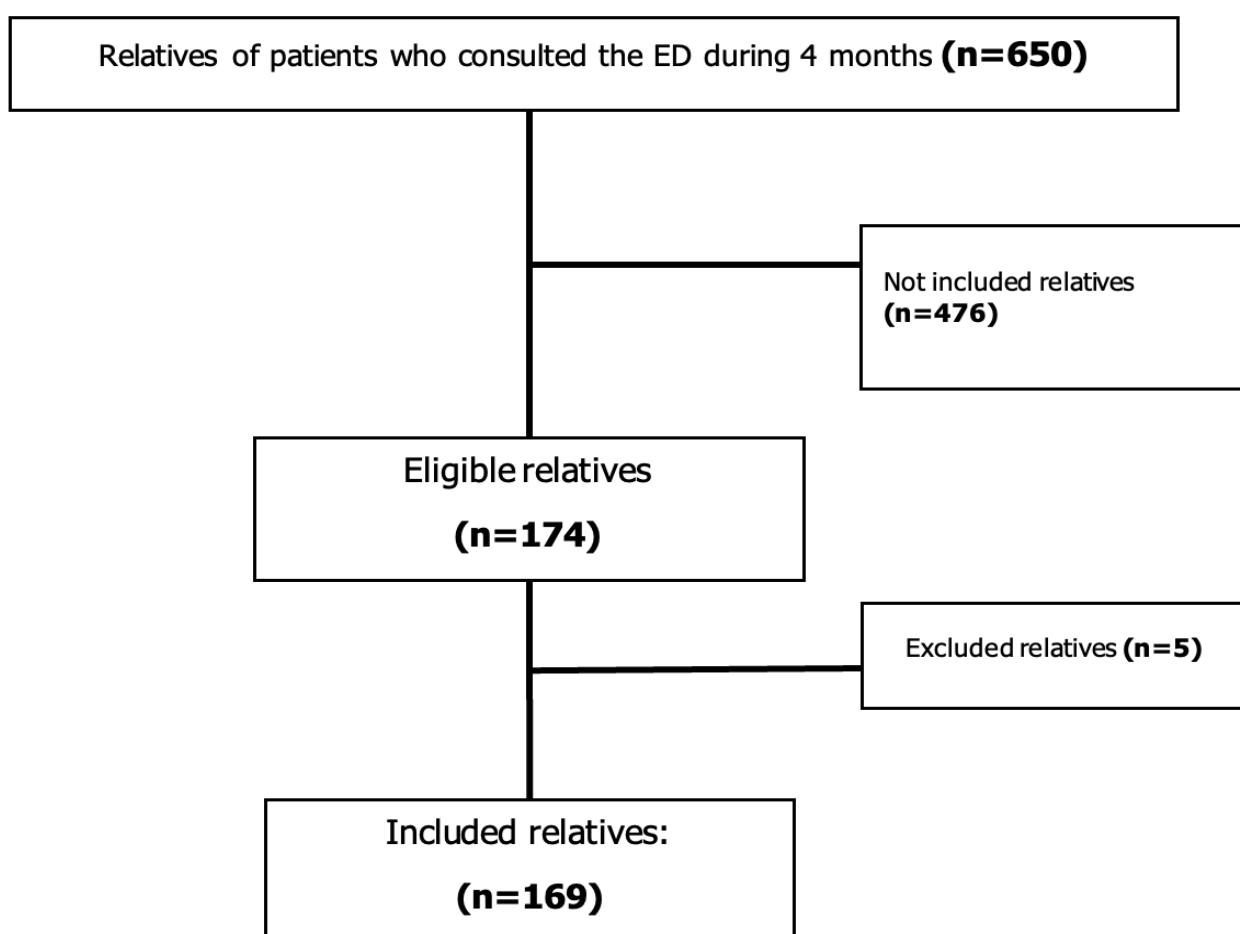


Figure 1. Flow Chart of the Study Population

The participants' ages ranged from 18 to 73 years, with a mean age of 41 ± 13 years (52.1% female). Table 1 summarized the demographic characteristics of the population.

Table 1. Demographic Characteristics of our Study Population

Variable	Category / Value	N population = 169
Age (years)	Mean \pm SD	41 ± 13 [18 – 73]
Sex	Male	81 (47.9)
	Female	88 (52.1)
Relationship to Patient	Parent	44 (26)
	Offspring	32 (18.9)
	Spouse	20 (11.8)
	Sibling	25 (14.8)
	Other family member	23 (13.6)
	Friend	16 (9.5)
	Neighbor	9 (5.3)
Educational Background	No formal education	8 (4.7)
	Primary education	21(12.4)
	Secondary education	66 (39.1)
	University education	73 (43.2)
Healthcare Employee		20 (11.8)
Previous ED Visits		94 (55.6)
Distance to Hospital	Mean \pm SD (minutes)	31 ± 23
Purpose of Visit	Patient transport	68 (40.2)
	Cultural/family/social reasons	77 (45.6)
	Seeking health information	24 (14.2)

Continuous variables are presented as median [IQR], ordinal variables are presented as number and percentage. ED: Emergency Department

Reception and Management by the Healthcare Team

The average reception delay reported by participants was 4.82 ± 4.18 minutes, with the majority 142 respondents (84%) reportedly being attended to in less than 10 minutes. When asked about their familiarity with the role of each healthcare provider involved in the patient's care, 95 participants (56.2%) responded affirmatively (Figure 2).

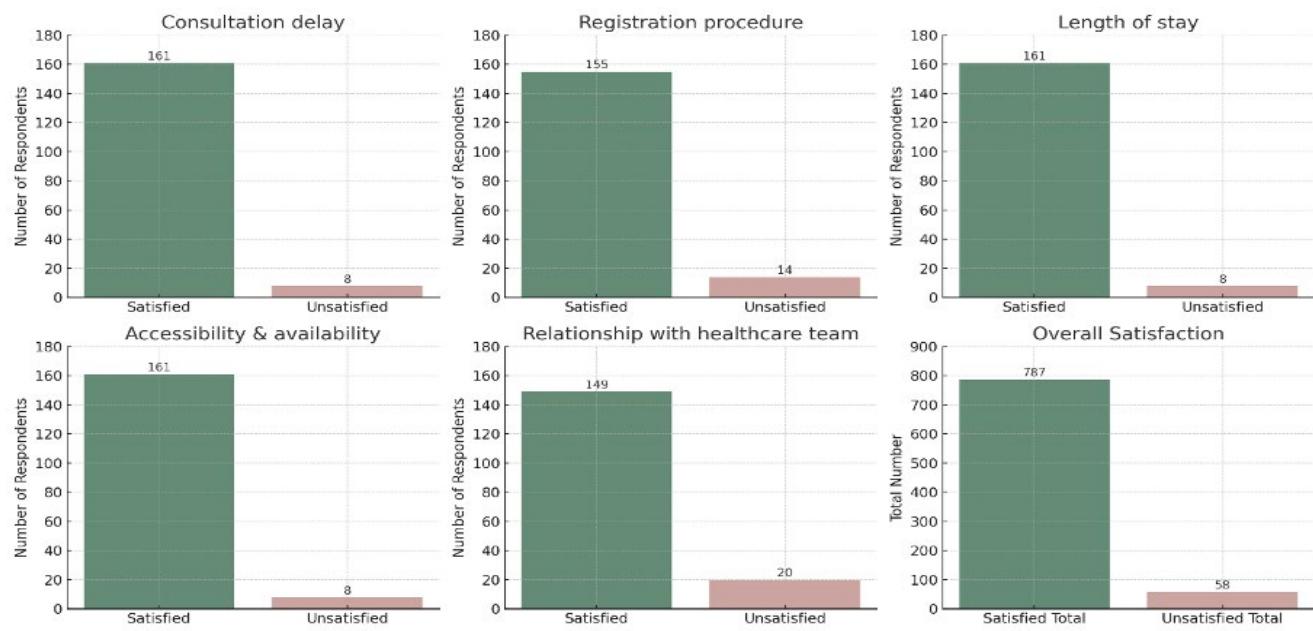


Figure 2. The Satisfaction of Relatives Regarding the Reception and Management by Healthcare Employees

Information Provided to the Patient's Relative

Most of the participants (94.7%) stated they had received information regarding the patient's care. However, 12 participants (7.1%) reported inconsistencies or contradictions in the information provided (Figure 3).

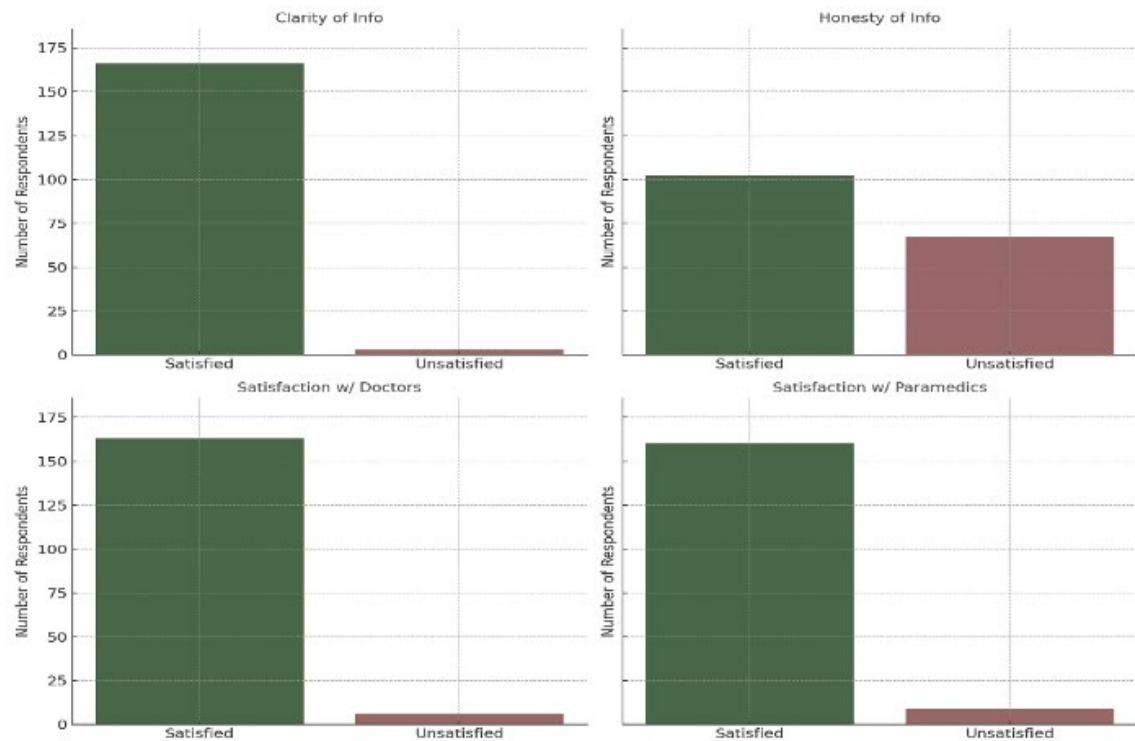


Figure 3. Satisfaction with the Information Provided to the Patient's Relative

Overall Satisfaction

Satisfaction in the domain of reception and management was high, with 89.7% of participants expressing full satisfaction. Similarly, 87.4% were satisfied with the information received. The overall satisfaction domain recorded the highest satisfaction, with 93.9% of respondents expressing a positive evaluation (Table 2).

Table 2. Overall Satisfaction

Questions Asked for the Relatives	n (%)
Are you satisfied with the reception from the healthcare team?	
Unsatisfied	18 (10.7)
Satisfied	151 (89.3)
Do you think the best care is being provided to your relatives?	
Unsatisfied	7 (4.1)
Satisfied	162 (95.9)
Are you satisfied with the care your relative is receiving from the healthcare team?	
Unsatisfied	6 (3.6)
Satisfied	163 (96.4)

Factors Associated with Satisfaction of Patients' Relatives in the ED

Multivariate analysis showed significantly higher registration satisfaction among healthcare workers compared to non-healthcare participants ($p = 0.043$; OR = 2.64; 95% CI: 1.03–6.77)

No significant associations were found between age, sex, or educational background and satisfaction in reception and management, information provided, or overall satisfaction (Table 3).

Table 3. Factors Associated with Satisfaction of Patients' Relatives in the ED

Item / p Value	Age	Sex	Educational Background	Healthcare Employee
Association Between the Demographic Characteristics of a Patient's Relatives and their Satisfaction with the Reception and Management Provided by Healthcare Providers				
Consultation Delay	0.811	0.722	0.468	0.241
Registration Procedure	0.497	0.167	0.591	0.043
Length of Stay	0.189	0.777	0.999	0.241
Accessibility and Availability of the Healthcare Team	0.485	0.545	0.468	0.952
Relationship with Healthcare Team	0.822	0.843	0.759	0.641
Familiarity with the Role of each Healthcare Provider	0.941	0.432	0.991	0.071
Association Between the Demographic Characteristics of the Patient's Relatives and their Satisfaction with the Information Provided to them				
Receiving Information Regarding the Relative	0.183	0.248	0.733	0.321
Clarity of Information Provided	0.911	0.999	0.579	0.522
Honesty of the Information Provided	0.728	0.608	0.579	0.522
Desire to Obtain more Information	0.314	0.221	0.513	0.972
Satisfaction with Information Provided by Doctors	0.905	0.999	0.237	0.241
Satisfaction with Information Provided by Paramedics	0.941	0.999	0.302	0.289
Consistency of the Information Provided by the Healthcare Team	0.183	0.881	0.912	0.155
Association Between the Demographic Characteristics of the Patient's Relative and their Overall Satisfaction				
Reception by the Emergency Team	0.172	0.493	0.910	0.640
Best Management Provided to the Relative	0.142	0.119	0.467	0.194
The Care Provided to the Relative	0.053	0.213	0.999	0.536

Discussion

This prospective study aimed to assess the satisfaction of patients' relatives in the ED of Mahmoud Yaacoub Center for Urgent Medical Assistance. The study found high satisfaction levels across most domains, including overall care (96.4%), reception (89.3%), and belief that the best care was provided (95.9%).

In the Tunisian context, medical confidentiality is protected by the Penal Code and the Medical Code of Ethics^{16,17}. Disclosure of information to relatives requires the patient's explicit consent, which must be distinguished from mere accompaniment. However, recent legal provisions permit the medical team to inform relatives in life-threatening emergencies requiring immediate medical intervention. Our finding that 94.7% of relatives received information suggests that ED staff are effectively navigating these ethical and legal requirements, likely by obtaining consent when possible, or acting under these emergency provisions.

The demographic characteristics of the study population, with a mean age of 41 ± 13 years and slight female predominance, aligned with previous studies on relatives in ED/ICU settings^{10,18,19}. The distribution of relationships to the patient, showing high involvement of parents, offspring, and siblings, also corresponds with other research findings^{18,20,21}. The high proportion of participants with secondary or university education was consistent with observations regarding family involvement in care decisions^{20,22}.

Our analytical study revealed a significant difference in satisfaction with the registration procedure between healthcare and non-healthcare employees, with the former expressing higher satisfaction (85% vs 62%, $p=0.043$). This may be attributed to their greater familiarity with hospital administrative processes, supporting prior research²³.

Unlike evaluation of relatives' satisfaction with healthcare, the evaluation of patient satisfaction has been extensively studied in healthcare settings²⁴, particularly in Intensive Care Units (ICUs) and Pediatric Departments^{25,27}. It is a well-established indicator of healthcare quality, routinely measured through surveys designed to identify areas for improvement and enhance service delivery^{11,28}. These surveys have become integral to the patient-centered approach that dominates modern healthcare, allowing providers to align their services more closely with patient needs and expectations¹².

Studies on relatives' satisfaction in ICUs have emphasized the importance of fostering understanding,

as relatives often navigate complex emotions and interactions with healthcare providers during critical moments of care^{29,30}. Similarly, in pediatric settings, research has emphasized the impact of communication and empathy on parental satisfaction. However, in the ED, where rapid decision-making and high patient turnover are common, the satisfaction of relatives has not been sufficiently assessed. This gap in literature suggests a need for targeted research to better understand and improve the experiences of both patients and their families in the emergency care environment.

In our study, the high satisfaction with reception and management by healthcare providers^{6,26}, including short reception delays for the majority, and high satisfaction with consultation delay^{22,23,31}, registration⁹, availability, and relationships^{22,23,31}, aligned with the importance of timely reception in emergency settings. However, the observed dissatisfaction regarding the honesty of information provided (39.6% unsatisfied) suggests potential gaps in transparency, corroborating studies where families felt information was withheld, particularly in critical cases^{25,27}. We also found that 7.1% of respondents reported receiving conflicting information, which aligned with findings from other studies that emphasize the impact of inconsistent messaging^{25,32}. Interestingly, unlike some other studies, our study found no significant association between age, sex, or educational background and overall satisfaction, which is consistent with literature reporting inconsistent associations between demographic factors and parent satisfaction³³. This could suggest that the ED's practices are effective across diverse demographics or may be influenced by the homogeneity of the specific study population^{10,25,34,35}.

Our findings, particularly the high overall satisfaction rates, can be interpreted in light of specific cultural norms in Tunisia, where strong family involvement in patient care is deeply ingrained and expected. The significant proportions of relatives accompanying patients for 'transport' (40.2%) and fulfilling 'cultural/family/social obligations' (45.6%) underscore this active family presence. This societal expectation might contribute to higher satisfaction when families feel included and informed. Additionally, cultural perceptions of medical authority and the public's trust in healthcare providers could play a role in the generally positive satisfaction levels observed.

Strengths and Limitations

To the best of our knowledge, this is the first study in Tunisia to assess the satisfaction of relatives in the ED, specifically focusing on adult family members, an often-overlooked perspective in patient-centered care. Using a structured scoring system, we evaluated key factors influencing satisfaction, including reception, clarity of communication, and overall experience. The prospective design further strengthens the reliability of the data collected in real-time clinical settings.

We acknowledge several limitations: the small, single-center sample may limit generalizability, and findings may not reflect other regions or settings. Larger, multicenter, and longitudinal studies are needed to enhance validity and assess changes in satisfaction over time.

Recommendations

Based on the findings of our study, several strategies are recommended to improve the satisfaction of relatives in EDs. First, administrative procedures should be simplified and streamlined, especially for non-healthcare users, with consideration given to digital solutions such as pre-registration platforms. Second, providing real-time updates on waiting times and offering comfort measures in waiting areas could help reduce stress and improve the overall experience. Third, ED staff should be trained and encouraged to communicate clearly, compassionately, and consistently with patients' relatives.

This research highlights the importance of improving communication with patients' relatives to reduce frustration that may lead to aggression, and to strengthen their support for the patient, ultimately enhancing the quality of care in the ED.

Conclusion

Our findings highlight that while overall satisfaction of patients' relatives was high in the ED, areas like the registration process require targeted improvement, especially for those unfamiliar with healthcare systems. Our study underscores the importance of clear communication, streamlined administrative processes, and a supportive environment. These insights contribute valuable information for developing family-centered care strategies that could lead to enhanced patient outcomes and a more supportive emergency care environment.

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