

The role of caring nurse in the emergency department: a descriptive analysis of patient satisfaction in the waiting area

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ABSTRACT

Introduction: overcrowding and staff shortages in Emergency Departments negatively affect waiting times, the perceived quality of care, and the safety of healthcare professionals. The introduction of the caring nurse, dedicated to providing information and emotional support to patients in the waiting room, may improve the care experience.

Materials and Methods: this descriptive observational study was conducted in December 2024 at the Emergency Department of a university hospital in Lombardy, Italy. Adult patients triaged with a priority code between 3 and 5 and managed by the caring nurse were invited to complete a satisfaction questionnaire.

Results: during the study period, 4,613 patients were registered at triage, and 330 (7.1%) completed the questionnaire. The majority of patients (86.7%) perceived a high level of availability from the caring nurse, and 75.8% reported having received support in understanding the assigned triage code. Among the 164 open-ended responses analyzed, 124 expressed appreciation for the caring nurse, particularly highlighting professionalism, empathy, and clarity; whereas only 40 comments pointed out critical issues such as prolonged waiting times, insufficient information, and limited understanding of the clinical pathway.

Conclusions: the findings highlight the value of the caring nurse in improving the patient experience in the Emergency Department waiting area by addressing informational, emotional, and care-related needs. However, the success of this intervention depends on appropriate organizational support and resource allocation.

Key words: patient satisfaction; emergency department; workplace violence.

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Introduction

The Emergency Department (ED) represents a fundamental component of hospital care, playing a crucial role in ensuring access to healthcare services in urgent situations, both nationally and internationally. However, the increasing number of ED visits, combined with healthcare workforce shortages,¹ poses a critical challenge that may negatively affect waiting times and the overall patient experience.²⁻⁴ The initial contact between patients and the healthcare system in the ED typically occurs with the triage nurse, who assigns a priority code based on the urgency of treatment or the patient's clinical condition.^{5,6} Misunderstandings can arise even during these first interactions, often due to patients' limited knowledge regarding ED processes and expected waiting times.⁷ The wait before entering the treatment area can generate anxiety and concern, potentially impacting patients' perceptions of care quality.^{8,9} Prolonged waiting times and overcrowding can further lead to stress, anger, and frustration in patients who are already in vulnerable conditions.^{10,11} Moreover, factors such as lack of privacy, poor symptom control (e.g., pain), and uncomfortable environments can further impair the patient experience.^{12,13}

These critical issues may increase the risk of aggression towards healthcare workers, both during triage and the treatment phase.^{14,15} Data from the Italian Ministry of Health's National Observatory on Healthcare Professionals' Safety reported 4,452 voluntary notifications of workplace violence occurring in EDs across Italy in 2024, making it the healthcare setting with the highest frequency of verbal and physical violence.^{16,17} Additionally, staff shortages and ineffective communication can contribute to decreased patient satisfaction and trust in the healthcare delivery system.^{18,19}

Given the importance of these challenges, enhancing the patient experience in the ED—particularly through improved communication—has become a key priority in modern healthcare settings.²⁰ Effective communication may improve patients' adherence to treatment and their overall expectations of care. It is especially important that patients and their caregivers receive clear, timely information and are actively involved in the triage process.²¹ The introduction of a dedicated healthcare professional (caring nurse) responsible for interacting with patients and caregivers in the waiting area and providing information on ED procedures and the diagnostic process, is part of a patient-centered approach aimed at improving the care experience.²² Understanding patients' perspectives regarding the need for and importance of sharing information about their clinical status is essential, given the central role of the individual in the care pathway.²³ While patient satisfaction with ED care is well documented in the literature,²⁴ the specific experience of patients supported by the caring nurse during the waiting period remains under-investigated. This study aimed to assess patient satisfaction with the support provided by the caring nurse while waiting in the ED waiting area.

Materials and Methods

Study design and setting

This was a prospective, observational, descriptive study conducted at the Emergency Department of the Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico in Milan, from December 1 to December 31, 2024. The ED handles over 55,000 patients annually. Triage is performed according to the updated Intra-Hospital Triage Model of the Lombardy Region, aligned with the national "Guidelines on Intra-Hospital Triage" (2019). This model stratifies patients into five priority levels, each associated with a maximum waiting time for medical assessment and treat-

ment: code 1 (emergency, immediate access), code 2 (urgent, access within 15 minutes), code 3 (semi-urgent, access within 60 minutes), code 4 (minor urgency; access within 120 minutes), and code 5 (non-urgent, access within 240 minutes).

All adult patients (≥ 18 years), with access codes allowing a waiting time of up to 240 minutes, who owned a smartphone and were registered between 8:00 a.m. and 8:00 p.m., were eligible.

Exclusion criteria were language barriers, cognitive or clinical impairments preventing proper questionnaire completion, and lack of informed consent.

Role of the caring nurse

In accordance with the Regional Decree No. XII/1827 of January 31, 2024, issued by the Lombardy Region, a dedicated nurse was introduced to improve communication between the hospital and patients/caregivers during ED admission (8:00 a.m. to 8:00 p.m.). The caring nurse interacts with patients after triage, while they await access to the treatment area, providing clear and timely information about clinical procedures and organizational aspects. The goal is to promote effective communication, reduce anxiety and misunderstandings, and update patients on expected waiting times and ED workflow.

Data collection

Patients in the waiting area after triage (between 8:00 a.m. and 8:00 p.m.) were invited to complete a questionnaire using the SURVIO platform, accessible via a smartphone QR code. The questionnaire was developed by adapting items from two validated tools: the "Accident and Emergency (A&E) Department Questionnaire PCA" and the "Emergency Department Patient-Reported Experience Measure (ED PREM)".^{25,26} The final version consisted of three sections: 1) Items on sociodemographic characteristics (age, sex, education) and triage code assigned; 2) Six items on satisfaction with the caring nurse, rated on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree); 3) One open-ended question (max 300 words) inviting comments or suggestions for improvement.

Content validity was assessed by two ED experts who independently evaluated item relevance and consistency. A pilot test with five patients helped refine the questionnaire based on their feedback.

Statistical analysis

Data were analyzed using Microsoft Excel software. Categorical variables were presented as absolute and percentage frequencies; continuous variables were reported as mean and standard deviation. Open-ended responses were thematically analyzed to identify recurring topics.

To obtain a representative sample, a minimum of 300 complete questionnaires was targeted within the one-month study period. According to the study design, the response rate threshold ($>5\%$) was defined a priori to ensure a minimum level of representativeness, rather than for inferential statistical purposes.

Ethical considerations

The study was conducted in accordance with the Declaration of Helsinki and EU Regulation 2016/679 (GDPR) on data protection. The protocol was approved by the hospital's medical director. Participation was voluntary, and refusal did not affect patient care. Informed consent was obtained before questionnaire completion. All data were collected anonymously and stored on a secure, encrypted server. The study involved no procedures beyond routine care and did not collect sensitive data beyond the study objectives.

Results

During the study period, 4,613 ED patients were recorded. Of these, 82.2% (3,792/4,613) were assigned a triage code with a maximum wait time of 240 minutes, and 7.1% (330/4,613) of patients completed the questionnaire. Table 1 summarizes ED access characteristics.

Among the 2,150 patients registered at triage during the caring nurse's presence and assigned a triage code between 3 and 5, the majority (49.1%; 162/330) were aged 30–59 years and had completed upper secondary education. Table 2 details sociodemographic data and ED access characteristics.

High levels of satisfaction were reported regarding communication and involvement in the care process. Specifically, 75.8% (250/330) and 73.9% (244/330) of patients agreed or strongly agreed that the caring nurse helped them understand the triage code and provided updates on waiting times. Perceived reassurance and availability were rated highly, with 73.9% (244/330) and 86.7% (286/330) selecting “agree” or “strongly agree”, respectively. Table 3 presents detailed responses. Regarding the open-ended comments, 50.3% (166/330) did not leave any feedback. Thematic analysis of the remaining 164 comments highlighted appreciation for the caring nurse's professionalism, kindness, clarity, and empathy. Forty comments noted concerns regarding long waits, understaffing, insufficient information, and difficulty understanding triage codes or care pathways. Only a small number (1.5%; 5/330) suggested improving the caring nurse's visual identification compared to other staff.

Discussion

This study demonstrates that introducing a dedicated nurse in the ED significantly enhances the patient's experience during the waiting period. Most respondents expressed high satisfaction with communication, emotional support, and clarity of information – findings aligned with prior evidence on the role of communication in reducing patient anxiety and dissatisfaction in emergency care.²⁷

Patients' experience in ED is shaped by multiple factors. The most frequently cited in the literature include waiting times, interactions with triage staff, patients' physical conditions, and the quality of information provided.²⁸ Support in understanding the assigned triage priority and regular updates on waiting times have proven to be key elements in reducing uncertainty and improving the perception of care. Most patients who completed the questionnaire reported high satisfaction with the regular updates regarding waiting times and information related to the care pathway. Informational transparency is associated with increased trust in the healthcare organization and a lower risk of conflict. Specifically, providing indicative waiting times for laboratory tests results, consultations, and hospital admission has proven particularly

valuable.²⁹ Moreover, such transparency contributes to reducing stress and frustration associated with prolonged waits before entering the examination room.²⁹ Conversely, a lack of information on waiting times can generate frustration and negatively impact

Table 1. Characteristics of emergency department admissions.

Characteristics	n=4613 (%)
Triage code (color)	
Code 1 – red	127 (2.7)
Code 2 – orange	694 (15.1)
Code 3 – blue	1222 (26.5)
Code 4 – green	2041 (44.2)
Code 5 – white	529 (11.5)
Mean Emergency Department length of stay (hours)*	20.3±5.6

*Only for patients who were subsequently admitted to the hospital.

Table 2. Sociodemographic characteristics.

Variable	n=330 (%)
Age group (years)	
18-29	68 (20.7)
30-44	80 (24.2)
45-59	82 (24.8)
60-74	60 (18.2)
75-90	38 (11.5)
> 90	2 (0.6)
Sex	
Female	176 (53.3)
Male	154 (46.7)
Education level	
Lower secondary school	52 (15.8)
Upper secondary school	138 (41.8)
University degree	132 (40)
Other	8 (2.4)
Triage code (color)	
Code 3 – blue	92 (27.9)
Code 4 – green	194 (58.8)
Code 5 – white	44 (13.3)
Mode of Emergency Department access	
Self-referred	170 (51.5)
Accompanied by caregiver/friend	94 (28.5)
Ambulance	50 (15.1)
Other	16 (4.9)

Table 3. Patient satisfaction with the caring nurse.

Variable	Not at all (%)	Slightly (%)	Neutral (%)	Fairly (%)	Very much (%)
The caring nurse helped me understand the triage code	26 (7.8)	22 (6.7)	32 (9.7)	152 (46.1)	98 (29.7)
The caring nurse provided updates on waiting times	24 (7.3)	18 (5.5)	44 (13.3)	164 (49.7)	80 (24.2)
The caring nurse informed me about my care pathway	14 (4.2)	22 (6.7)	50 (15.2)	142 (43)	102 (30.9)
The caring nurse supported me in meeting basic needs (e.g., hydration, food, use of restroom, mobility)	12 (3.6)	26 (7.9)	90 (27.3)	100 (30.3)	102 (30.9)
Did you feel reassured?	4 (1.2)	12 (3.6)	70 (21.2)	162 (49.1)	82 (24.9)
Did you perceive the availability of the caring nurse?	8 (2.4)	8 (2.4)	28 (8.5)	152 (46.1)	134 (40.6)

patients' perception of care quality.³⁰ Managing patients' expectations while they are in the waiting area is essential, especially since perceived waiting time has a greater impact on patient experience than actual waiting time. Frequent communication has therefore proven to be an effective strategy for increasing satisfaction among waiting patients.³¹

Patient feedback suggests that the visual recognizability of the caring nurse—such as differentiated uniforms, clearly visible ID badges, or a clear presentation of their role—is a key element in fostering trust and reducing uncertainty during the waiting period. This finding aligns with existing studies that emphasize how effective communication extends beyond verbal content to include non-verbal cues such as visual appearance and staff demeanor.³² The presence of clearly identifiable personnel dedicated to patient interaction also helps reduce the communicative burden on triage nurses and physicians, thereby improving the overall efficiency of information flow among healthcare providers.³³ Furthermore, structured visual communication tools (e.g., digital displays in the waiting area showing care progression or regular updates from healthcare personnel) have been associated with up to a 25% improvement in patient satisfaction in certain hospital settings.^{34,35} Investment in the visibility and role clarity of the caring nurse, along with proactive communication regarding wait times and care phases, can therefore significantly enhance the waiting experience and patients' perceived safety.

Despite the positive findings, the responses highlighted several critical issues, including prolonged waiting times and understaffing. These factors are recognized in the literature as key contributors to episodes of workplace violence toward healthcare personnel.³⁶ In this setting, specific measures—such as installing video surveillance systems, implementing in-house security services, and creating welcoming environments for patients and caregivers in accordance with Deliberation XI/6902 of the Regional Council of Lombardy—represent targeted interventions to improve the safety in ED. Additionally, the introduction of the caring nurse may serve not only to enhance patient experience but also as a potential strategy for preventing aggression. Clear, empathetic, and timely communication can reduce stress and misunderstandings that might otherwise escalate into verbal or physical violence.³⁷ Informational support during the waiting period thus emerges as an essential component of broader risk management and healthcare personnel safety strategies, as well as of efforts toward the humanization of care.³⁸ However, it is important to note that the effectiveness of these strategies also depends on the availability of adequate human resources and the organizational capacity to manage peak patient volumes in the ED.

This study presents several limitations that should be taken into account when interpreting the results. Firstly, the descriptive observational design and absence of a control group do not allow for causal inference regarding the introduction of the reception nurse and the observed improvement in patient experience. Another limitation is the lack of additional clinical data, which prevented exploration of sample heterogeneity and limited the ability to perform subgroup analyses based on specific clinical characteristics. Participant recruitment was voluntary, potentially introducing selection bias. It is possible that respondents were primarily patients with higher educational levels or greater familiarity with digital tools, given the use of a QR code to access the questionnaire. This data collection method may have excluded less technologically proficient patients or those with sensory limitations, thereby reducing sample representativeness. The overall response rate to the survey also represents a further limitation in generalizing the findings. Additionally, the short duration of data collection and the fact that the study was conducted in a single large hospital may limit the transferability of the results to different contexts, such as facilities with different patient populations, sizes, or organizational structures in their EDs.

Conclusions

The introduction of the caring nurse in the ED setting appears to be an effective strategy for enhancing patient experience during waiting periods. The role improved communication clarity, reassurance, and transparency, with high levels of satisfaction reported regarding informational and relational support. Timely updates, explanation of triage codes, and approachability are key elements contributing to perceived care quality. However, these benefits must be considered within a systemic context that includes adequate staffing and organizational support to address waiting times and overcrowding. Future studies should explore the perspectives of healthcare providers and caregivers and evaluate the economic and organizational sustainability of this model. Robust research designs are needed to confirm the caring nurse's effectiveness and further examine its impact on patient satisfaction and safety outcomes in emergency care

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