

The Relationship Between Patient Characteristics, Nurse Response Time, and Emergency Room Patient Satisfaction in Manggarai Regency

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ABSTRACT

The quality of nursing services has a significant impact on patient satisfaction, particularly in influencing the decision to return for future care. In the emergency department, nurses are expected to work swiftly, accurately, and efficiently—where response time becomes a critical factor influencing patient satisfaction. This study aimed to examine the relationship between patient characteristics and nurse response time on patient satisfaction in the Emergency Department of Manggarai Hospital. Data were analyzed using univariate analysis and logistic regression. The findings showed no significant relationship between patient characteristics and satisfaction ($p = 0.719$). However, nurse response time was found to have a significant relationship with patient satisfaction ($p = 0.001$).

Keywords: Patient Satisfaction, Response Time, Triage

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INTRODUCTION

According to Law No. 38 of 2014 concerning Nursing, nursing services are a form of professional service based on nursing science and skills aimed at individuals, families, groups, and communities, in both healthy and ill conditions. Emergency nursing services represent a series of professional nursing practice activities provided by competent, trained, and educated nurses to deliver care to patients experiencing emergency conditions (1).

These services must operate in a synergistic manner to ensure emergency care is delivered quickly, accurately, and efficiently (2). The quality of nursing services greatly influences patient satisfaction, particularly in the context of repeat visits. When the services meet patient expectations, they are considered good and satisfactory (3).

Patient satisfaction refers to a patient's response to the degree of alignment between their expectations before and after receiving care (4). Indicators used to assess satisfaction include responsiveness, reliability, empathy, tangible evidence, and assurance (5).

Patients are considered satisfied when their expectations are met through the health services received, especially amid growing demands for quality care (6). Patient satisfaction in healthcare remains a consistent concern in service delivery (7). In hospitals, decreased satisfaction can lead to decreased patient loyalty, which serves as a warning sign for healthcare providers (3).

Patient satisfaction levels in Indonesia remain relatively low. A study conducted in Surabaya found that only 38.1% of patients reported being satisfied with their care (8). In another

study from a hospital emergency room in Jakarta, only 39.9% of patients expressed satisfaction, while 60.1% were dissatisfied with the services provided (9). These findings suggest that satisfaction levels in emergency departments remain suboptimal, presenting an ongoing challenge for hospitals both in Indonesia and globally (10). One of the critical indicators of success in emergency care is the timeliness, or response time, in providing appropriate interventions (11).

Response time refers to the period required for patients to receive care from competent nurses capable of delivering fast and accurate treatment (12). Specifically, emergency response time is defined as the duration between a patient's arrival at the hospital and the initiation of care by ER personnel, determined by the patient's severity level or triage category (4). The effectiveness of this response time is vital, as it directly influences survival outcomes and the quality of emergency interventions (13).

Delays in response time can result in severe consequences, including death or serious injury; a one-minute delay has been associated with a 17% increase in the mortality rate within 24 hours of the incident (15). The standard response time of five minutes after a patient's arrival in the ER must be utilized by nurses to initiate the primary emergency procedures, known as ABCD (Airway, Breathing, Circulation, and Disability) (16). Nurse response time is one of the determining factors influencing patient satisfaction in hospitals (14).

Given the above, it is essential for nurses to ensure timely care that matches the patient's condition upon arrival at the emergency department. Timely response plays a critical role in

influencing patient satisfaction, particularly in terms of responsiveness, reliability, and empathy. Patient satisfaction is closely tied to the overall quality of hospital services. Therefore, this study aims to investigate the relationship between patient characteristics and nurse response time with patient satisfaction in the emergency department of a hospital in Manggarai Regency. The findings are expected to serve as a reference for improving the quality of healthcare services within hospital settings.

METHODS

This study employed a quantitative approach with an analytical design and a cross-sectional methodology. The population consisted of patients or the families of patients admitted to the emergency room (ER). The sampling technique used was accidental sampling, resulting in a total sample of 281 respondents. Data collection instruments included observation sheets to document patient characteristics and response time, as well as satisfaction questionnaires using a Likert scale.

The questionnaire had been previously tested for validity and reliability. Data collection was conducted through direct observation and completion of the questionnaires. The collected data were analyzed using univariate analysis for the three study variables, followed by multivariate analysis using logistic regression to assess the relationship between the independent and dependent variables.

RESULTS AND DISCUSSION

Based on Table 1, the average distribution of patients admitted to the emergency room (ER) was as follows: 32.4% were categorized under red triage, 52.7% under yellow triage, and 14.9%

Table 1. Frequency Distribution of Patient Characteristics Based on Severity Level (Triage), Response Time, and Patient Satisfaction (n=281)

Characteristic	f	%
Triage		
Red	91	32.4
Yellow	148	52.7
Green	42	14.9
Response Time		
Responsive	240	85.4
Unresponsive	41	14.6
Satisfaction		
Satisfied	145	51.6
Unsatisfied	136	48.8

under green triage. Regarding the nurse response time variable, nurses responded to 85.4% of patients, while 14.6% of patients did not receive a timely response. For the patient satisfaction variable, 51.6% of patients or their family members expressed satisfaction with the ER services, while 48.4% reported dissatisfaction. Table 2 presents the analysis results of the relationship between the independent and dependent variables.

The majority of patients admitted to the ER fell under the yellow triage category (52.7%), indicating non-life-threatening conditions. In this category, the expected nurse response time is typically within 5 to 10 minutes. Response time is defined as the time interval from a patient's arrival at the hospital to the initiation of treatment by ER personnel, encompassing the entire duration required to begin emergency care (15).

Often referred to as the “golden time” in emergency care, response time represents a critical period during which prompt and appropriate medical intervention significantly improves the likelihood of recovery and survival. Delays during this period can lead to severe consequences, including death or permanent disability (16). A patient is considered to have received a responsive service when the care provided is appropriate to their condition and urgency level, in accordance with triage principles. Triage is a clinical method used to prioritize patient care based on the type and urgency of the illness or injury (17), ensuring that each patient receives care at the right time according to their medical needs (18).

Currently, various triage systems are used in hospitals, including the Australasian Triage Scale (ATS), the Canadian Triage and Acuity Scale (CTAS), the Manchester Triage System (MTS), and the Emergency Severity Index (ESI), as well as hybrid or modified versions (19). The results of this study show that 85.4% of patients received timely responses from nurses, indicating that care was administered appropriately based on triage classification. However, some patients still experienced delays in receiving care.

Response time in emergency care, usually measured in minutes, is influenced by several factors, including the availability of healthcare personnel

Table 2. Results of Analysis of the Relationship Between Patient Criteria and Nurse Response Time with Patient Satisfaction in the ER (n = 281)

		Satisfied		Unsatisfied		p-value
		N	%	N	%	
Triage	Red	49	53.8	41	45.2	0.719
	Yellow	73	49.3	75	50.7	
	Green	23	54.8	19	46.2	
Response Time	Responsive	145	60.4	95	39.6	<0.001
	Unresponsive	0	0	41	100	

and the efficiency of supporting services such as laboratories, radiology, pharmacies, and administrative units (2). Other contributing factors include nurse staffing levels, the adequacy of facilities and infrastructure, and the clinical knowledge and experience of the nursing staff (4).

According to Table 2, there is a statistically significant relationship between nurse response time and patient satisfaction, with a p-value of less than 0.05. In contrast, patient characteristics (triage categories) do not show a significant relationship with satisfaction levels. The quality of nursing care significantly impacts patient satisfaction and their likelihood of returning for future treatment. When care meets patient expectations, it is perceived as high-quality and satisfactory (3).

Satisfaction is defined as the patient's response to the degree of alignment between their initial expectations and their perceptions after receiving care (20). Satisfied patients are more likely to share their positive experiences with others (21). Moreover, the professional demeanor and interpersonal communication of healthcare personnel play a vital role in fostering a positive experience for patients, their families, and the community (20).

This study found that 51.6% of patients were satisfied with the nursing care provided in the emergency department. Patient satisfaction is a key indicator of healthcare service quality (22). The results further demonstrate that nurse responsiveness in handling ER patients is significantly associated with patient satisfaction (p-value < 0.001). Satisfied patients and their families are more likely to adhere to medical advice and follow treatment plans. In contrast, dissatisfied or disappointed patients are less likely to comply, may ignore

recommendations, seek alternative physicians, or even move to other healthcare facilities (23).

LIMITATIONS

This study is not without limitations. Data collection was conducted using a questionnaire, which is inherently subjective; therefore, the accuracy of the data largely depends on the honesty and comprehension of the respondents.

RESEARCH ETHIC

This study has passed an ethical review and was approved under ethical clearance number 04a/USP/L02/K/10/202x.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to this study.

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CONCLUSION

Nursing care in the emergency department (ER) plays a crucial role in determining the overall quality of hospital services. Service quality is primarily assessed through patient satisfaction, which reflects the extent to which healthcare services meet patients' expectations and needs. Patient satisfaction serves as an important indicator of whether health concerns are effectively addressed. Therefore, it is imperative for ER nurses to implement triage procedures accurately to ensure that care is provided in accordance with the patient's clinical urgency. Doing so

contributes significantly to the provision of high-quality healthcare services.

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