

## The Relationship Between Nurses' Response Time and Patient Satisfaction in the Emergency Department of a Private Hospital in Surabaya, Indonesia

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### ABSTRACT

**Introduction:** A rapid response time in providing healthcare services can improve patient satisfaction levels. However, overcrowding in the Emergency Department (ED) may hinder nurses from delivering optimal care. Preliminary observations indicated that 60% of patients were dissatisfied with the services provided, while only 40% reported satisfaction. This study aimed to analyze the relationship between nurses' response time and patient satisfaction levels in the Emergency Department. **Methods:** This study employed a correlational analytic research design with a cross-sectional approach. Data were collected using an observation checklist and a questionnaire. The population consisted of hospitalized yellow-triage patients admitted through the Emergency Department of a private hospital. A total of 78 patients were selected as the sample using a consecutive sampling technique. **Results:** The findings revealed that the majority of respondents (78%) received prompt nursing services. Regarding patient satisfaction, most respondents (81%) reported being very satisfied with the services provided. Statistical analysis using Spearman's Rank Correlation test showed a significant relationship between nurses' response time and patient satisfaction ( $p = 0.002 < \alpha = 0.05$ ). The correlation coefficient was  $r = 0.345$ , indicating a weak positive correlation. This result suggests that faster nurses' response times are associated with higher levels of patient satisfaction. **Discussion:** Prompt response time plays an important role in determining patient satisfaction. Therefore, nurses' skills, attitudes, and knowledge should be continuously improved through regular training programs to ensure timely and appropriate care in the Emergency Department. Enhancing the quality of healthcare services is expected to increase patient satisfaction with hospital services.

**Keywords:** Response Time, Nurses, Patient Satisfaction, Emergency Department, Hospital Services.

### I. INTRODUCTION

Patient satisfaction can be achieved when patients' needs, desires, and expectations are fulfilled through the healthcare services or products they receive, including emergency care services in a hospital Emergency Department (ED). However, findings from a study by Nurdelima (2021), cited in Della (2023), showed a different situation, in which patients expressed dissatisfaction due to delays in healthcare providers' responses when healthcare services were needed (Della Arya & Apriani, 2023).



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Patients visiting the Emergency Department (ED) require prompt and appropriate medical attention. Therefore, standards for emergency care services must be implemented according to healthcare providers' competencies and capabilities to ensure rapid response times and appropriate treatment. Response time refers to the interval between a patient's arrival at the ED and the initial response provided by healthcare personnel (Della Arya & Apriani, 2023). This is supported by the World Health Organization (WHO), which recommends that emergency patients receive initial treatment within five minutes of arriving at the ED (Dila Mareta Yubi Nursanti, 2022). Similarly, the Indonesian Ministry of Health policy (2009) stipulates that the response time from patient arrival until receiving emergency services should not exceed five minutes (Hardianto & Wiyadi, 2023).

Although emergency services are generally perceived as having a rapid response time, some patients still report delays in nurses' responses. High patient density in the ED may prevent nurses from providing optimal care, as they tend to prioritize patients classified under yellow and red triage categories. Consequently, some patients perceive that they are not attended to immediately because their condition is not considered critical.

According to data from the Indonesian Ministry of Health, there were 4,402,205 ED visits, accounting for 13.3% of all visits to general hospitals in Indonesia (Suyatno, 2024). At Dr. Soetomo Hospital, Surabaya, the annual report in 2024 recorded 38,225 emergency visits, with an average of 105 patient visits per day (Dr. Soetomo Hospital, 2024). Research conducted by Suyatno (2024) reported that 26.7% of patients experienced very slow responses, 21.3% experienced slow responses, and 30.7% expressed dissatisfaction with the services provided. Furthermore, research conducted by Hardianto (2024) in the Emergency Department of Abdul Rivai Regional Hospital, Berau Regency, found that 36% of healthcare providers were categorized as unresponsive (Hardianto & Wiyadi, 2023).

Junita et al. (2021) reported that 8.1% of emergency service response times in a private hospital in Pekanbaru were categorized as inadequate. Based on a preliminary survey conducted in the Emergency Department of a private hospital in Surabaya, interviews with ten patients revealed that six patients were dissatisfied because nurses responded slowly and delayed treatment after their arrival at the ED, while four patients reported satisfaction due to the prompt response provided by nurses.

Patient satisfaction is one of the key indicators used to evaluate and improve healthcare service quality. In emergency nursing services, patient satisfaction is closely related to response time (Suyatno, 2024). Several factors influence response time, including the availability of medical equipment and medications, infrastructure and facilities, stretchers, years of work experience, emergency conditions, educational background, staff attendance, and workload. Conversely, rapid and accurate response times provide significant benefits to patients by making them feel cared for, increasing their trust in the hospital, and enhancing their sense of security. Therefore, response time plays a crucial role in patient management and directly affects patient satisfaction levels.

Patient dissatisfaction with nursing care may lead to a decline in patient visits and negatively affect the hospital's reputation. It may also increase anxiety among patients and their families. Dissatisfied patients may express their complaints emotionally, submit formal reports to hospital management, choose not to return for future treatment, transfer to another healthcare facility, or share negative experiences with others.

Based on these issues, several strategies can be implemented to improve patient satisfaction, particularly in emergency care services. These include enhancing effective communication regarding patient conditions with both patients and their families and conducting triage training programs based on emergency severity classifications (red, yellow, green, and black categories). Nurses should be scheduled regularly to participate in training programs to improve their competencies and ensure the delivery of high-quality emergency care services (Dwi Yunita Haryanti, 2025).

## **II. SUBJECTS AND METHODS**

This study employed a correlational analytic research design using a cross-sectional approach. The study examined the relationship between nurses' response time and patient satisfaction. The study population consisted of all patients who received treatment at a private hospital and met the inclusion criteria: patients categorized as yellow-triage cases, cooperative patients who were willing to participate as respondents, and adult patients. A total of 78 respondents were selected using a consecutive sampling technique. This technique was considered efficient and practical for hospital-based data collection because respondents could be recruited consecutively according to the sequence of patient arrivals until the required sample size was achieved. Data were collected using a patient satisfaction questionnaire and an observation checklist. The validity test of the satisfaction questionnaire showed that the calculated correlation coefficient (r-value) exceeded the critical value of the table ( $r > 0.361$ ), while the reliability test demonstrated a correlation coefficient greater than 0.80 ( $r = 0.855$ ), indicating excellent reliability (Pane, 2020). After receiving ethical approval, the researcher conducted data collection in the Emergency Department (ED) of the private hospital. The researchers measured nurses' response time by recording the time interval from the patient's arrival at the Emergency Department entrance until the first nursing intervention or initial assessment (anamnesis) was conducted. A stopwatch was used to measure the time, and the results were recorded on the observation checklist. Response time was categorized into two groups: 0–5 minutes (fast response) and >5 minutes (slow response). Patient satisfaction was measured using a questionnaire consisting of 22 items across five subscales. Responses were assessed using a dichotomous Likert-type scale, with "Yes" scored as 1 and "No" scored as 0. Satisfaction scores were interpreted by calculating the total score obtained from all indicators. Higher scores indicated greater patient satisfaction. The satisfaction categories were defined as follows: Very Satisfied: 17–22, Satisfied: 12–16, Moderately Satisfied: 6–11, Dissatisfied: 0–5. The patient satisfaction questionnaire was administered after all emergency care procedures in the ED had been completed. Respondents completed the questionnaire voluntarily, accompanied by family members if desired, and under the supervision of the researcher.

### III. RESULTS

**Table 1. Demographic and Clinical Characteristics of Respondents** in the Emergency Department of a Private Hospital in Surabaya, Indonesia

<b>Characteristics</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
Nursing Competence	78	100
<b>Age</b>		
26 – 35 years	17	21,8
36 – 45 years	61	78,2
<b>Gender</b>		
Male	38	48,7
Female	40	51,3
<b>Educational Level</b>		
Elementary School	1	1,3
Junior High School	20	25,6
Senior High School	45	57,7
Bachelor's Degree	12	15,4
<b>Payment Method</b>		
National Health Insurance/ BPJS	50	64,1
Self-Paying		
<b>Attitudes, Knowledge, and Skills as Perceived by Respondents</b>		
Yes	28	35,9
No		
	68	87,2
	10	12,8

Based on table 1, the respondents' demographic characteristics, most respondents were aged 36–45 years (78.2%), female (51.3%), had a senior high school educational background (57.7%), and used BPJS health insurance (64.1%). In addition, 87.2% of respondents perceived that nurses demonstrated good attitudes, knowledge, and skills.

**Table 2. Frequency Distribution of Response Time** in the Emergency Department of a Private Hospital in Surabaya, Indonesia

<b>No</b>	<b>Respon Time</b>	<b>Frequency (n)</b>	<b>Precentage (%)</b>
1	Fast Response Time	61	78
	Slow Response		
2	Time	17	22
	Total	78	100

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Based on table 2, regarding response time, 78% of respondents received rapid response-time services, while 22% experienced delayed response times.

**Table 3. Frequency Distribution respondents of Satisfaction Level in the Emergency Department of a Private Hospital in Surabaya, Indonesia**

No	Satisfaction Level	Jumlah (n)	Prosentase (%)
1	Very Satisfied	63	81
2	Satisfied	6	4
3	Moderately Satisfied	6	8
4	Dissatisfied	3	7
Total		78	100

Based on table 3, Concerning patient satisfaction, 81% of respondents reported being very satisfied, 4% satisfied, 8% moderately satisfied, and 7% dissatisfied

**Table 4. Distribution respondents of Frequency Respon Time and Satisfaction Level in the Emergency Department of a Private Hospital in Surabaya, Indonesia**

Satisfaction Level	<i>Response Time</i>				<b>Total</b>	
	Cepat		Lambat		N	%
	N	%	N	%		
Very Satisfied	54	88,5	9	52,9	63	100
Satisfied	2	3,3	1	5,9	3	100
Moderately Satisfied	5	8,2	1	5,9	6	100
Dissatisfied	0	0	6	35,3	6	100
<b>Total</b>	61	100	17	100	78	100

Among the 78 respondents, 63 respondents reported being very satisfied, and 54 of them (88.5%) received rapid response-time services. Statistical analysis using the Spearman Rank test with a significance level of  $\alpha = 0.05$  showed  $p = 0.002$  and  $r = +0.345$ . Since  $p < \alpha$ , there was a statistically significant relationship between nurses' response time and patient satisfaction levels in the Emergency Department of Private Hospital Surabaya

The correlation coefficient ( $r = 0.345$ ) indicated a weak positive relationship, meaning that faster nurses' response times were associated with higher patient satisfaction levels. Conversely, slower response times were associated with lower patient satisfaction

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was a statistically significant relationship between nurses' response time and patient satisfaction levels in the Emergency Department of Gotong Royong Hospital Surabaya.

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## **IV. DISCUSSION**

Of the 78 respondents, 61 (78.2%) received a fast response time. In terms of nurses' attitudes, skills, and knowledge, 58 (95.1%) nurses who demonstrated competent attitudes, knowledge, and skills provided a fast response time. According to Hardianto (2023), nurses' ability to remain calm and manage the panic experienced by patients and their families upon arrival at the Emergency Department (ED) is one of the attitudes and skills that contribute to prompt responses to patients' conditions (Hardianto & Wiyadi, 2023).

The researchers believe that the findings are consistent with existing theory. Nurses are required to think critically and demonstrate their clinical skills throughout the nursing care process. Attitudes, knowledge, and skills can be continuously developed through training programs and verified through professional competency certifications. These competencies serve as essential foundations for nurses in performing nursing interventions effectively. In addition, work experience is another contributing factor; the longer a nurse's work experience, the more developed and refined their skills become, enabling them to provide better response times when managing patients.

Based on the study findings, the level of patient satisfaction in the Emergency Department of the private hospital in Surabaya was predominantly categorized as "Very Satisfied," with 63 respondents (81%) reporting this level of satisfaction. Healthcare service quality is the core element that sustains healthcare institutions. Therefore, continuous quality improvement has become an essential requirement for healthcare organizations seeking to maintain their existence and achieve ongoing development (Dwi Yunita Haryanti, 2025).

The findings are consistent with the theoretical framework. High-quality healthcare services lead patients to perceive that the care provided meets or exceeds their expectations. In nursing practice, nurses should treat patients with respect, empathy, and professionalism to ensure that patients feel comfortable throughout the treatment process. The results of this study support the theory and are consistent with the findings of Amamubarokah (2025), who reported that high-quality healthcare services contribute significantly to increased patient satisfaction. (Amamubarokah, Roihatul Zahroh, 2025)

Suyatno (2024) found a significant relationship between nurses' response time and patient satisfaction with emergency care services. The findings of the present study are in agreement with both theory and empirical evidence, indicating that prompt and appropriate nursing response times in emergency situations can improve the satisfaction levels of both patients and their families.

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Efforts to enhance patient satisfaction, particularly in emergency care services, can be evaluated through several dimensions of service quality, including responsiveness (promptness in providing care), assurance (confidence and professionalism in delivering services), tangibles (the quality of physical facilities and healthcare services), empathy (caring and individualized attention provided to patients), and reliability (the ability to provide timely and dependable services). These dimensions reflect the quality of nursing care delivered to patients.

The results of this study are also supported by Sugiono (2021), who emphasized that nursing response time should receive continuous attention to improve the quality of hospital services, particularly in emergency departments, thereby increasing patient satisfaction. Furthermore, effective communication training represents an important professional development strategy that can be implemented to enhance nurses' communication competencies and improve the overall quality of patient care (Julianto et al., 2021).

The weak positive correlation found in this study suggests that nurses' response time is not the only determinant of patient satisfaction in the Emergency Department. Although faster response times were associated with higher levels of patient satisfaction, patient satisfaction is a multidimensional construct influenced by various factors, including nurses' communication skills, empathy, professional competence, availability of healthcare facilities, workload, patient expectations, and clinical outcomes. These factors may act as confounding variables, thereby reducing the strength of the observed correlation between response time and patient satisfaction. Therefore, efforts to improve patient satisfaction should focus not only on reducing response time but also on enhancing the overall quality of emergency care services.

## **V. CONCLUSION**

The findings of this study showed that the majority of respondents (78%) experienced a fast nursing response time in the Emergency Department of the private hospital. Furthermore, most respondents (81%) reported being very satisfied with the services provided. Statistical analysis revealed a significant relationship between nurses' response time and patient satisfaction levels in the Emergency Department. Although the strength of the correlation was weak, the relationship was positive, indicating that faster nursing response times were associated with higher levels of patient satisfaction.

Patient satisfaction resulting from prompt healthcare services reflects the quality of hospital care. Therefore, hospitals should continuously implement training programs that emphasize the development of professional competencies, clinical skills, and positive attitudes among healthcare providers. Strengthening these aspects is essential to maintaining and improving the quality of healthcare services and ensuring high levels of patient satisfaction.

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