



# Response Time and Patient Satisfaction in Islamic Hospital: A Cross Sectional Study

Dilgu Meri<sup>1\*</sup>, Aris Citra Wisuda<sup>2</sup>, Rifa Yanti<sup>3</sup>, Riski Novera Yenita<sup>4</sup>

<sup>1</sup>Nursing study program, Faculty of Health, Institut Kesehatan dan Teknologi Al Insyirah, Riau Province

<sup>2</sup>Nursing Study Program, Sekolah Tinggi Ilmu Kesehatan Bina Husada, Palembang, Indonesia

<sup>3,4</sup>Public Health Study Program, Faculty of Health, Institut Kesehatan dan Teknologi Al Insyirah, Riau Province

Email correspondence : [dilgu.meri@ikta.ac.id](mailto:dilgu.meri@ikta.ac.id)

Track Record Article	Abstract
<p>Revised: 21 July 2025 Accepted: 12 August 2025 Published: 31 August 2025</p> <p><b>How to cite:</b> Meri, D., Wisuda, A. C., Yanti, R., &amp; Yenita, R. N. (2025). Response Time And Patient Satisfaction In Islamic Hospital: A Cross Sectional Study. <i>Contagion: Scientific Periodical Journal Of Public Health And Coastal</i>, 7(2), 174–182.</p>	<p><i>Timely delivery of emergency services is a critical priority in healthcare systems worldwide, with both speed and accuracy in patient care serving as essential indicators of service quality. This study investigates the relationship between nurses' response time and patient satisfaction in the emergency department of Ibnu Sina Islamic Hospital, Pekanbaru. A quantitative, cross-sectional design was employed from December 2023 to July 2024. The study population consisted of family members accompanying patients to the emergency department. Using accidental sampling and the Slovin formula, a total of 94 participants were selected. Data were analyzed using the Chi-Square statistical test. Among the respondents, 83 individuals (88.3%) rated the response time as fast, while 11 (11.7%) perceived it as slow. In terms of satisfaction, 72 respondents (76.6%) reported being satisfied, whereas 22 (23.4%) expressed dissatisfaction. Chi-Square analysis revealed a statistically significant association between response time and patient satisfaction (<math>p = 0.003</math>, <math>p &lt; 0.05</math>), indicating that faster response times are positively correlated with higher levels of patient satisfaction in the emergency department.</i></p> <p><b>Keywords:</b> Nurse, Response Time, Patient Satisfaction, Emergency Department, Hospital.</p>

## INTRODUCTION

Patient satisfaction is a fundamental component of the healthcare sector (Al-Nusair et al., 2023). It is attained when patients' needs, preferences, and expectations are effectively met through the services provided. Within healthcare settings, patient satisfaction refers to the extent to which patients' experiences align with—or surpass—their expectations of the care received (Alodhialah et al., 2024). As a key indicator of hospital service quality, high levels of patient satisfaction reflect the competence, professionalism, and overall performance of healthcare providers (Wahyuni et al., 2024).

According to data from the World Health Organization (WHO, 2021), global patient satisfaction rates were compiled from over six million feedback entries across 25 countries. Sweden ranked highest with an index of 92.37%, followed by Finland (91.92%), Norway (90.75%), the United States (89.33%), and Denmark (89.29%). In contrast, the lowest satisfaction levels were recorded in Kenya (40.4%) and India (34.4%). In Indonesia, the Ministry of Health Regulation (2016) sets the minimum hospital service standard for patient

satisfaction at above 95%. Scores below this threshold indicate suboptimal service quality and a failure to meet the established national standard (Istiana et al., 2019).

Prompt and appropriate emergency care is essential for saving lives and must be delivered both effectively and efficiently. The success of emergency care is often measured by the speed—or response time—with which quality care is provided to prevent death and disability (Khotimah et al., 2022). Furthermore, the mortality rate in emergency departments serves as a key indicator of compliance with minimum service standards (Gunarto, 2023).

A critical aspect of emergency care is the promptness with which nurses respond to newly admitted patients in the Emergency Department (ED), as rapid intervention plays a vital role in reducing mortality risk (Gunarto, 2023). Delays in service have been linked to increased death rates among high-priority cases (Gunarto, 2023). Although timely and accurate intervention in the ED is essential, its implementation is often challenged by overcrowding. Without effective management, patient care may become suboptimal, ultimately resulting in adverse outcomes (Busti et al., 2024).

A survey conducted across 118 emergency departments in Jakarta reported approximately two million annual ED visits, with more than 60% leading to inpatient admissions (Habib & Sudaryo, 2023). Overcapacity reduces the ED's ability to manage new emergency cases efficiently, increases the likelihood of treatment delays, and contributes to elevated rates of mortality, morbidity, and patient dissatisfaction (Habib & Sudaryo, 2023). Blanchard et al. (2012) found that the mortality rate was 7.1% for patients with a response time of  $\geq 8$  minutes, compared to 6.4% for those attended to within  $\leq 7$  minutes and 59 seconds. Response time refers to the interval between a patient's arrival at a healthcare facility and the initiation of the first medical intervention. According to the Decree of the Minister of Health of the Republic of Indonesia No. 856/Menkes/SK/IX/2009 on Hospital Emergency Department Standards, patients in critical condition must receive treatment within five minutes of arrival. This requirement is further reinforced by Decree No. 129/Menkes/SK/II/2008 concerning Minimum Service Standards for Hospitals. Haryatun and Sudaryanto (2018) emphasize that emergency response time encompasses both the immediate reaction upon a patient's entry into the hospital area and the duration needed to complete essential emergency procedures.

In emergency medicine, speed is a decisive factor influencing survival rates and recovery outcomes. The principle of “time saving is life saving” underscores the importance of every second, advocating for all procedures to be executed promptly and efficiently to prevent death or long-term disability.

Several previous studies have explored the relationship between response time and patient satisfaction. Destiningrum et al. (2024) identified a significant correlation between nurse response time and family satisfaction among ESI level 1 and 2 patients at Panti Rapih Hospital, Yogyakarta. Similarly, Virgo (2018) emphasized that rapid and high-quality assistance—from the incident site to hospital admission—plays a critical role in improving survival rates and enhancing patient satisfaction. In contrast, Maatilu (2014) reported that the average nurse response time in managing emergency cases at PROF Hospital, Manado, exceeded five minutes, indicating performance below the expected standard.

Drawing on these insights, the present study aims to:

1. Describe nurse response times in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru.
2. Assess patient satisfaction levels in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru.
3. Analyze the relationship between response time and patient satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru.

## **METHODS**

This study employed a quantitative design with a cross-sectional framework to examine the association between nurses' response times and patient satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru. In this context, nurses' response time was treated as the independent variable, while patient satisfaction served as the dependent variable. Operationally, response time was defined as the interval between a patient's arrival at the emergency unit and the initiation of the first medical intervention. Patient satisfaction was defined as the degree of favorable perceptions or emotional responses expressed by patients in relation to the healthcare services they received following treatment.

The research population consisted of 1,662 family members of patients who visited the emergency department of the hospital. Sampling was conducted using an accidental sampling technique, and the sample size of 94 respondents was determined using the Slovin formula. Data collection employed two primary instruments: an observation sheet to measure response time and a patient satisfaction questionnaire comprising 25 items structured on a Likert scale. Instrument validation and reliability testing were conducted on 15 respondents at Prima Pekanbaru Hospital. The validity test for the satisfaction questionnaire yielded an *r*-count value of 0.4409, which exceeded the *r*-table value at a 10% significance level, confirming that all items were valid.

Data on patient satisfaction were collected through direct distribution of questionnaires to patients or their family members, while nurse response times were recorded using an observation sheet. Univariate analysis was presented descriptively, detailing the frequency and distribution of respondent characteristics as well as the independent and dependent variables. Bivariate analysis was conducted using the Chi-Square test, and all statistical procedures were performed using computerized software.

This study received ethical clearance from the Ethics Commission of Ibnu Sina Islamic Hospital, Pekanbaru, under approval number 099/KEP/02/XII/1445 H/2024. Ethical principles upheld throughout the research included informed consent, confidentiality, anonymity, fairness, and integrity, with a commitment to ensuring that the study's outcomes yield tangible benefits and practical implications for healthcare services.

## RESULT

**Table 1. Frequency distribution of respondents based on response time in the Emergency Unit Ibnu sina islamic hospital Pekanbaru in 2024 (n=94)**

<i>Respon Time</i>	<b>Frequency</b>	<b>Percentage</b>
Fast	83	88.3
Slow	11	11.7
<b>Amount</b>	<b>94</b>	<b>100</b>

Based on the data presented in Table 1, the majority of respondents—83 out of 94, or 88.3%—received care within a time frame classified as a fast response.

**Tabel 2. Frequency Distribution of Respondents Based on Patient Satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru (n = 94)**

<b>Satisfaction</b>	<b>Frequency</b>	<b>Percentage</b>
Satisfaction	72	76.6
Dissatisfaction	22	23.4
<b>Amount</b>	<b>94</b>	<b>100</b>

The results of table 2 show that the research results from 94 respondents, the majority of respondents were satisfied, 72 people with a percentage of 76.6%.

**Tabel 3. Analysis of the Relationship Between Nurse Response Time and Patient Satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru (n = 94)**

Client Satisfaction	Respon Time						P. Value
	Fast		Slow		Amount		
	f	%	f	%	f	%	
Satisfaction	68	94.4%	4	5.6%	72	100%	0,003
Dissatisfaction	15	68.2%	7	31.8%	22	100%	
Amount	83	88.3	11	11.7%	94	100%	

Referring to the data in Table 3, out of 94 respondents, a total of 72 individuals were categorized as satisfied, with 68 of them (94.5%) receiving services within a fast nurse response

time. Meanwhile, among 22 respondents classified as dissatisfied, 15 individuals (22.2%) experienced a slow nurse response time. Statistical analysis using the Chi-Square test yielded a p-value of 0.003, which is below the 0.05 significance threshold, indicating a statistically significant association between nurse response time and patient satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru.

## DISCUSSION

### 1. Response Time of nurses

The findings of this study revealed that 88.3% of patient families experienced a nurse response time categorized as fast. Response time refers to the interval between a patient's arrival and the initiation of medical treatment. In emergency care, the guiding principle "Time Saving, It's Life Saving" underscores the importance of executing every intervention with maximum effectiveness and efficiency, as critical conditions may lead to death within minutes. For example, the cessation of breathing for just 2–3 minutes can result in fatal outcomes (Prahmawati et al., 2021).

The Ministry of Health mandates that the response time for emergency patients should not exceed five minutes after arrival. According to Fadhilah et al. (2015), factors influencing response time include the availability of stretchers, adequacy of triage personnel, the condition of staff and patients, and the knowledge, skills, and experience of healthcare providers. These factors are closely tied to the speed and precision of medical actions, which are embedded within standard operating procedures for emergency care.

The present findings align with the study conducted by Sugiono and Muflihatin (2022), which examined the relationship between response time and patient satisfaction in the Emergency Department of Abdul Wahab Sjahrani Hospital, Samarinda. In their research involving 96 respondents, 85 participants (88.5%) reported receiving emergency services within five minutes or less, indicating that the majority perceived the response time as fast. These results highlight the critical importance of prompt service delivery in emergency settings, where timeliness serves as a key performance indicator of hospital service quality—particularly within emergency departments.

Based on the researcher's observations, the average nurse response time in the Emergency Department of Ibnu Sina Islamic Hospital is three minutes or less, placing it within the fast-response category. This level of performance is shaped by a combination of internal and external factors. Internally, it is influenced by the competencies of healthcare personnel, including nurses' proficiency in delivering timely and accurate care,

as well as the adequacy of staffing within the emergency unit. Externally, it is supported by the availability of facilities and infrastructure, which are essential for ensuring the smooth and efficient delivery of emergency services at Ibnu Sina Islamic Hospital, Pekanbaru.

## **2. Patient Satisfaction**

The study findings indicated that the majority of patient families (76.6%) expressed satisfaction with the services provided. Patient satisfaction refers to an individual's perception that a product or service has met or exceeded their expectations. According to Nursalam (2016), several factors contribute to patient satisfaction, including service quality—where patients are more satisfied when care is delivered to a high standard; emotional factors such as trust and admiration toward the healthcare institution; performance, referring to the efficiency and comfort of staff interactions; and aesthetic appeal, including cleanliness, design, and the overall atmosphere of the facility. Additional contributing elements include product characteristics, completeness of facilities, infrastructure, staff friendliness, location, effective communication, and a calm, comfortable environment.

Syafrudin (2011) identified ten indicators for assessing customer satisfaction, which were later consolidated into the widely recognized “RATER” dimensions of service quality: responsiveness, assurance, tangibles, empathy, and reliability. The present findings are consistent with Murniati's (2018) study at Cibabat Hospital, where 73.2% of 97 respondents reported being satisfied with emergency department services. Similarly, research by Akhirul and Fitriana (2020) found that among 94 respondents, 81.9% reported being very satisfied, 6.4% satisfied, and 11.7% dissatisfied.

Satisfaction in this study appears to result from the alignment between patient expectations and the quality of services and responses provided by healthcare personnel. Conversely, dissatisfaction may arise when service delivery fails to meet expectations or when response times in addressing patient concerns are prolonged. Based on the researchers' assessment of questionnaire responses, patient satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital is considered high, with no respondents selecting “dissatisfied.” This suggests that satisfaction is influenced not only by prompt response times but also by the five RATER dimensions—reliability, responsiveness, assurance, empathy, and tangibles—which collectively shape the perceived quality of emergency services.

### **3. The Relationship Between Response Time and Patient Satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru.**

A statistical cross-tabulation analysis was conducted to examine the relationship between response time and patient satisfaction in the Emergency Department of Ibnu Sina Islamic Hospital, Pekanbaru, involving a total of 94 respondents. Of these, 72 reported being satisfied, with 68 individuals (94.5%) having experienced rapid nurse response times. In contrast, among the 22 respondents who indicated dissatisfaction, 15 (22.2%) had encountered slower response times. The Chi-Square test yielded a p-value of 0.003, which is below the significance threshold of  $\alpha = 0.05$ . As a result, the null hypothesis ( $H_0$ ) was rejected, indicating a statistically significant association between nurse response time and patient satisfaction in this emergency care setting.

These findings underscore the importance of timeliness and precision in nursing interventions for patients arriving at the emergency department, as both are critical to delivering effective and prompt care. This is consistent with the study by Mampuk and Karame (2019) at Panti Waluyo Regional Hospital, which demonstrated a significant relationship ( $p = 0.042$ ; correlation coefficient = 0.209) between nurse response time and patient satisfaction. Similarly, Maria (2023) found that rapid and accurate emergency care—particularly for accident patients—significantly enhances satisfaction levels among both patients and their families.

Given these results, implementing targeted policies to improve patient satisfaction through enhanced response times at RSI Ibnu Sina Pekanbaru is essential. Regular monitoring and evaluation of nurse response times in the Emergency Department should be carried out to ensure sustained service quality and alignment with best practices in emergency care.

## **CONCLUSION**

The findings indicate that nurses in the Emergency Department of Ibnu Sina Hospital, Pekanbaru, generally demonstrate rapid response times, accompanied by a relatively high level of patient satisfaction. Based on the researchers' interpretation, these results suggest a significant association between response time and patient satisfaction. This implies that response time is a component of the responsiveness dimension, which serves as one of the key factors influencing satisfaction. However, overall satisfaction should not be evaluated solely based on response time, but rather through all five service quality dimensions—reliability, responsiveness, assurance, empathy, and tangibles.

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