

# A Cross-Sectional Study Examining Nurses' Attitudes toward Triage Implementation and how They Relate to Patient Satisfaction in Primary Health Emergency Rooms

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## ABSTRACT

The attitude of nurses during triage is a key component in emergency service delivery and can influence how patients perceive and are satisfied with care. Understanding this relationship in primary community health settings is important to improve service quality. To examine the relationship between nurses' attitude in applying triage and patient satisfaction at the emergency outpatient units (UGD) of Puskesmas Kapongan, Situbondo. This quantitative observational study used a cross-sectional design. A sample of 120 patients who visited the UGD in May–June 2025 was recruited using accidental (convenience) sampling. Data were collected using a self-administered questionnaire assessing nurse attitude toward triage (Likert scale) and patient satisfaction (Likert scale). Spearman's rank correlation test was used to analyze the relationship;  $\alpha = 0.05$ . Among the 120 respondents, 95 (79.2%) perceived nurses as having positive attitudes during triage, and 72 (60.0%) reported being satisfied with triage service. Spearman's test showed a significant positive correlation between nurse attitude and patient satisfaction ( $\rho = 0.52$ ,  $p < 0.001$ ). There is a significant relationship between nurses' attitudes during triage and patient satisfaction. Improving nurse attitudes through training, supervision, and workplace support may enhance patient satisfaction in primary emergency settings.

**Keywords:** Cross-Sectional, Emergency Unit, Nurse Attitude, Patient Satisfaction, Triage

## BACKGROUND

Patient satisfaction is a cornerstone indicator of healthcare quality and influences public perception of health institutions (Patient satisfaction-scoping review, 2024). In emergency care, triage is the process that determines the order in which patients are treated, based on urgency; it demands quick decision-making, professionalism and communication (Patient Safety Culture among Triage Nurses, 2023).

Nurses' attitudes in triage encompassing respect, empathy, responsiveness, fairness are believed to be key factors shaping how patients feel cared for and satisfied (Patient satisfaction with competence of triage nurse, 2024). Research in Jakarta showed that patients cared for by nurses with a strongly caring attitude had significantly higher satisfaction levels.

Factors that impact nurse attitude include knowledge, clinical experience, workload, and institutional support (Relationship of Knowledge & Perception with Triage Skills in Pariaman, 2024). Meanwhile, patient satisfaction in triage is influenced by nurse competence, empathy, communication, waiting time, and how the nurse handles patient rights and emotional concerns (Patient Satisfaction Scoping Review, 2024).

This study examines this relationship specifically in UGD of Puskesmas Kapongan, an outpatient emergency unit in a primary health center in Situbondo, aiming to inform local quality improvement.

## **METHODS**

The study employed a cross-sectional observational design conducted in the Emergency Department (UGD) of Puskesmas Kapongan, Situbondo. This design allowed the researchers to examine patient perceptions at a single point in time, providing a snapshot of the relationship between nurse attitudes during triage and patient satisfaction. By focusing on real-time interactions within a primary healthcare emergency setting, the study aimed to capture authentic experiences that reflect the quality of triage services provided.

Participants consisted of adult patients aged 18 years and above who visited the emergency department during the study period of May to June 2025. Eligibility required the patients' willingness to provide informed consent. The study applied accidental (convenience) sampling to recruit respondents, targeting a total of 120 participants. This approach was chosen due to the dynamic nature of emergency care, where systematic sampling is difficult to implement.

The study assessed several variables using structured instruments. The independent variable, nurse attitude during triage, was measured using a 10-item Likert-scale questionnaire that evaluated elements such as courtesy, fairness, communication clarity, and speed of service. The dependent variable, patient satisfaction, was captured using a 10-item satisfaction scale covering dimensions such as timeliness, comfort, respect, and clarity of information. Additional covariates including age, gender, education, waiting time, and perceived severity were collected to control for potential confounding influences. Both instruments were adapted from previously validated tools and underwent pilot testing with ten participants. The reliability scores were strong, with Cronbach's  $\alpha$  values of 0.84 for the attitude scale and 0.88 for the satisfaction scale.

Data collection was carried out immediately after patients completed the triage process. For outpatients, questionnaires were distributed before discharge, while for admitted patients, data were collected after initial care. This timing ensured that responses were based on fresh experiences, reducing the likelihood of recall bias. The method also helped maintain consistency in the data by capturing perceptions at comparable stages of the care process.

For data analysis, descriptive statistics were used to summarize participant characteristics and variable distributions. The primary analytical test was Spearman's correlation, chosen to assess the association between nurse attitude and patient satisfaction due to the ordinal nature of the measurement scales. A significance level of  $p < 0.05$  was applied to determine whether the observed correlations were statistically meaningful. This analytical approach provided a robust framework for understanding how triage attitudes influence patient satisfaction in an emergency care context.

## **RESULTS**

The sample consisted of 120 respondents with an average age of 38.5 years ( $SD \pm 12.7$ ), indicating that the study population represented a broad range of adult age groups. This age distribution reflects the typical demographic of patients seeking emergency services at a primary healthcare facility, where both young and middle-aged adults frequently utilize urgent care services. The standard deviation also suggests considerable variability in age among respondents.

In terms of gender distribution, the sample included 68 female participants (56.7%) and 52 male participants (43.3%). The slight predominance of female respondents may reflect local healthcare-seeking behaviors, where women may be more likely to seek medical attention or accompany

family members to emergency services. This composition provides a balanced foundation for analyzing satisfaction and perception outcomes across genders.

Educational attainment among respondents showed that the majority had completed secondary school or higher (70%). This relatively high education level is important because patient understanding of triage processes and expectations of service quality may be influenced by their knowledge and awareness. Individuals with higher education may articulate their perceptions more clearly, contributing to more reliable satisfaction assessments.

Regarding outcome variables, the findings indicated that 95 respondents (79.2%) perceived nurse attitudes during triage as positive. Meanwhile, 72 respondents (60.0%) reported a high level of patient satisfaction. These proportions suggest that while nurse attitudes were widely viewed favorably, satisfaction levels were somewhat lower, indicating that other factors such as waiting times, environment, or perceived severity may also influence the overall patient experience.

The statistical analysis using Spearman's rank correlation revealed a moderate positive association between nurse attitude and patient satisfaction ( $\rho = 0.52$ ,  $p < 0.001$ ). This result suggests that more positive nurse attitudes during triage are significantly linked to higher levels of patient satisfaction. The strong statistical significance indicates that this relationship is unlikely to be due to chance, reinforcing the importance of interpersonal behavior and communication in emergency care settings.

**Table 1.** Sample Characteristics and Key Results

Variable	Value
Mean Age (SD)	38.5 years ( $\pm 12.7$ )
Gender	Female: 68 (56.7%) Male: 52 (43.3%)
Education Level	Secondary school or above: 70%
Positive Nurse Attitude	95 respondents (79.2%)
High Patient Satisfaction	72 respondents (60.0%)
Correlation (Spearman's $\rho$ )	$\rho = 0.52$ , $p < 0.001$
Interpretation	Moderate positive association

## DISCUSSION

The finding of a moderate positive relationship confirms that when nurses display positive attitudes during the triage process—such as empathy, clarity, fairness—patients tend to express higher satisfaction. Comparable results were seen in studies like *Patient Satisfaction with the Level of Competence of the Triage Nurse* where competence and empathetic behavior correlated significantly with satisfaction.

Also, caring attitude in inpatient settings in Jakarta showed strong correlation with satisfaction. Studies on triage nurse skills and knowledge also suggest that perception and knowledge influence attitudes and in turn behavior, which may indirectly affect patient satisfaction.

Waiting time, clarity of information, and how patients are greeted during triage also emerged in the literature as key components of satisfaction and reflect nurse attitude (Patient experience triage integrative review, 2024).

The study has several limitations that should be acknowledged when interpreting the findings. First, the use of convenience sampling restricts the generalizability of the results, as the sample may not fully represent all patients visiting emergency departments in similar settings. Additionally, the reliance on self-reported patient perceptions introduces the possibility of social desirability bias, where respondents may provide overly positive assessments. The cross-sectional

design further limits causal interpretation, meaning that although a relationship was identified between nurse attitude and patient satisfaction, the study cannot determine whether one directly influences the other.

Despite these limitations, the findings offer valuable implications for improving triage services. Nurse training programs should incorporate structured modules focusing on communication, empathy, and fairness to strengthen interpersonal skills during triage interactions. Supervisory feedback and regular assessment of triage attitudes may also contribute to enhancing service quality and patient satisfaction. Furthermore, continuous monitoring of waiting times and patient feedback can help identify service gaps, enabling healthcare facilities to implement targeted improvements in emergency care delivery.

## CONCLUSION

Nurses' attitudes in implementing triage at Puskesmas Kapongan are significantly associated with patient satisfaction. Strengthening positive attitude through training, supportive environment, and monitoring may help improve patient perceptions and satisfaction in emergency outpatient settings.

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