

# Relationships of Service Response with Service Quality in Emergency Department of Rsud Dr. Loekmono Hadi, Kudus, Indonesia

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## Abstract

Emergency Department is a service installation in a hospital that provides the first service for 24 hours to patients with the threat of death and disability in an integrated manner by involving various multidisciplinary sciences and multi professions including nursing services. The quality of service in IGD can be assessed based on 2 (two) things, namely service quality and minimum service standards (SPM). The main factor in evaluating service quality in the emergency room is the speed of service response time or response time. The purpose of service response time is the delivery of services that are fast, responsive and able to save emergency patients who need help. This research was conducted in January 2020 in the Emergency Room at Dr. Loekmono Hadi Kudus. It aims to analyze the relationship between service response time and service quality in the ED. This is a descriptive quantitative study carried out through analytic observation with a cross sectional approach. The population in this study was the visit of all patients who entered and received services by the guardian in the emergency room as much as 25-35 patients per shift per day, while the number of samples in this study were 117 patients. The independent variable in this study is service response time and the dependent variable is service quality. Data were analyzed by bivariate test using Kendall Tau. The p-value is 0.963, thus, there was no relationship between service response time and service quality in the Emergency Room Dr. Loekmono Hadi Kudus. Further research is needed because the limited understanding and knowledge of the sample influences the evaluation of service response time to service quality becomes irrelevant.

**Keywords:** *Emergency Room, Response Time, Service Quality*

## Introduction

Emergency Department (IGD) is a service installation in a hospital (RS) that provides the first service for 24 hours to patients with the threat of death and disability in an integrated manner by involving various multidisciplinary sciences and multi professions including nursing services<sup>(1)</sup>. General principles of

emergency services in hospitals are regulated in the Republic of Indonesia Minister of Health Regulation No. 47 of 2018, as follows: every hospital is required to have emergency services with the ability to conduct initial examinations of emergency cases and conduct resuscitation and stabilization (lifesaving). Hospital EDs must provide services 24 hours a day and seven days a week. Hospitals must not ask for advances when handling emergency cases, emergency patients must be treated no later than 5 (five) minutes after arriving at the ER, IGD organizations are based on multi-disciplinary, multi-professional organizations and integrated functional organizational structures (elements leaders and executors) who are responsible for implementing

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services to emergency patients in the emergency room with full authority led by doctors, and each hospital must try to adjust its emergency services to a minimum according to classification<sup>(1)</sup>. The services provided must be in accordance with the standard operating procedures set by each hospital<sup>(2)</sup>. Policies regarding hospital ED standards are issued to improve the quality of services running well and optimally.

The quality of service in ED can be assessed based on 2 (two) points including service quality and minimum service standards (SPM). Service quality is not only related to human resource issues but also includes service flow, rules and policies governing services and infrastructure facilities in the IGD<sup>(3)</sup>. This minimum service standard is intended to be a guide for a service unit that includes planning for implementation, control and supervision and accountability of services, especially in hospitals<sup>(4)</sup>. The minimum service standard in the ED is an instrument for maintaining service quality.

The main factor in evaluating service quality in the emergency room is the speed of service response time. Service response time is the speed of patient handling starting from the patient admission to the emergency room until the patient gets the initial action due to health problems experienced<sup>(5)</sup>. The purpose of service response time is the delivery of services that are fast, responsive and able to save emergency patients who need help<sup>(2)</sup>. The standard time for service response is stated in the Republic of Indonesia Minister of Health Regulation No. 47 of 2018 which states that emergency patients must be served no later than 5 (five) minutes after arriving at the Emergency Department<sup>(1)</sup>. There are several factors that affect the response time of services in the emergency room. This include the number of health workers or emergency staff, high workload, suitability of staff competence and the number of patient visits<sup>(6)</sup>.

This study aims to analyze the relationship between service response time and service quality in the ED. The procedure for measuring service response time was conducted by observation. In this procedure, the researcher calculated the time it takes the nurse to perform the initial action or anamnesa since the patient enters the emergency room by using a stopwatch (watch). This is calculated from the patient opening the IGD entrance to get the first treatment based on Triage<sup>(7)</sup>.

### Method

This is a descriptive quantitative study carried out through analytic observation with a cross sectional approach to the predetermined characteristic status of the research subjects. The study began in January 2020. The population in this study was the visit of all patients who entered and received services by a guardian in the emergency room of Dr. Loekmono Hadi Kudus with an average population of 1800-2000 patients per month or 25-35 patients per shift per day. Determination of the study sample was carried out using propulsive samples which produced a total sample of 117 patients.

The variables in this study consisted of independent variables and dependent variables. The independent variable in this study is the response time of emergency services. The dependent variable in this study is the quality of service in the emergency room of Dr. Loekmono Hadi Kudus. The measuring instrument used in this study was the observation sheet. After the data was collected, the analysis test was performed using SPSS XI with bivariate test using Kendall Tau.

### Finding

Characteristics of respondents in this study include gender, age, education, occupation, financing and triage category. Here is a table that explains the distribution of respondents based on gender characteristics in the Emergency Room Dr. Loekmono Hadi Kudus.

**Table 1. Frequency Distribution of Respondents by Gender in ED of RSUD Dr. Loekmono Hadi Kudus.**

Variable	Classification	Frequency	Percentage
Gender	Female	61	52,1%
	Male	56	47,9%
Total		117	100%

Source: 2020 primary data

Based on table 1, female respondents constituted the largest sample with 61 people (52.1%) while there were only 56 (47.9%) male respondents.

**Table 2. Distribution of Frequency of Respondents by Age, Education, Occupation, Financing and Triage Category in ED of RSUD Dr. Loekmono Hadi Kudus.**

Variable	Average	Min	Max	Standard of Deviation
Age	39,7	> 1 year	< 51 year	12,07
Education	2,44	None	Undergraduate	12,49
Occupation	2,19	Unemployed	Civil Servant	13,45
Payment method	2,88	Free	BPJS	3,26
Triage	2,54	P1	P4	7,60

Source: 2020 primary data

Based on table 2 above, the average age of respondents was 39.7 years, the youngest age was <1 year while the oldest age was 80 years with a standard deviation of 12.7. A total of 2.44 respondents were elementary school (SD) graduates. The standard deviation of the level of education not schooling until undergraduate education is 12.49. The average occupation was farmers (2.19). The standard deviation of the type of work from unemployed to Civil Servants (PNS) was 13.45.

The table also shows the average patient financing where 2.88 were BPJS insurance users. The standard deviation of the type of financing from free to patient using BPJS insurance was 3.26. The average triage category of patients who entered the emergency room of Dr. Loekmono Hadi Kudus is a patient with a priority triage 3 (P3) of 2.54. The standard deviations for the types of triage categories of P1 through P5 is 7.60.

**Table 3. Distribution of Response Time in the Emergency Room of RSUD Dr. Loekmono Hadi Kudus**

Response Time	Frequency	Percentage
Not good	61	52,1
Good	56	47,9
Total	117	100,0

Source: 2020 primary data

Based on the results of the analysis in table 3 the highest response time distribution in services in the Emergency Room Dr. Loekmono Hadi Kudus was not good (52.1%).

**Table 4. Distribution of Service Quality in Emergency Room Dr. Loekmono Hadi Kudus**

Service quality	Frequency	Percentage
Achieved	98	83,8%
Not achieved	19	16,2%
Total	117	100%

Source: 2020 primary data

Analysis of the data in table 4 shows the distribution of service quality in the Emergency Room Dr. Loekmono Hadi Kudus was achieved (83.8%).

**Table 5. Relationship of Response Time and Service Quality in the Emergency Room Dr. Loekmono Hadi Kudus**

Variable	Correlation coefficient	P value
Service response time	0,004	0,963
Service quality		

Source: 2020 primary data

Based on the results of the Kendall Tau analysis in table 5 the p value is 0.963. This shows that there is no relationship between service response time and service quality in the emergency room of RSUD Dr. Loekmono Hadi Kudus.

**Discussion**

The results of the study of service response time variables to the quality of service obtained the results there is no significant relationship between service response time and service quality in IGD RSUD Dr. Loekmono Hadi Kudus. The response time of service to patient acceptance even though in the results stated that there was no effect on the quality of service, the researchers saw that the results of service response time were not according to the standard, which exceeded 5 minutes. This is influenced by an imbalance between the ratio of the number of guard officers (nurses and doctors) and the number of patient visits that enter the emergency room. Patient’s evaluation of service response time to service quality is also influenced by patient and family understanding of low service standards. This may due to patient education most of which is primary education that created limited understanding and knowledge of patients making irrelevant judgments.

According to hospital emergency services standards issued by the Nursing and Medical Services Development the availability of the number of medical personnel to patients is 1: 7 and the ratio of nurses to patients is 1: 4. However, the number of patient visits that enter the emergency room needs to be considered in order to avoid inequality which results in a decrease in the quality of service in the emergency room<sup>(8)</sup>. Officers on duty every shift at the IGD RSUD Dr. Loekmono

Hadi Kudus consisted of one emergency doctor and four nurses. This is not in accordance with the rules of the Ministry of Health which determines the ratio of 1:7 doctors on duty, which means 6-7 nurses are needed with an average number of visits per shift of 25-35 patients.

The results of previous studies regarding the achievement of the standard of service quality evaluation of the Hardjono Ponorogo Hospital on the competence variable and the number of IGD guard staff stated that there would be a decrease in the quality of service in the emergency room if the adequacy of the number of personnel was not properly calculated compared to the large number of patients who entered<sup>(9)</sup>. Another different research result states that service response time seen from the variable number of workers does not significantly influence the quality of service in the ED<sup>(10)</sup>. The results of the study have shown that high workload has a significant effect on service quality. High workload caused by the inability of some professions that eventually carried out by other professions. Therefore, even though the number of staff is sufficient, if the workload is not in accordance with their respective professionalism, it will have an impact in the process of providing services to patients.

Patient’s evaluation of the variable elements of service response time did not significantly influence the quality of services provided by the IGD emergency department attendant Dr. Loekmono Hadi Kudus. This is most likely due to the patient’s understanding and knowledge of hospital emergency procedures and standards. This is evidenced from the results of the study of educational averages of elementary school (SD) graduates from the lowest education level to the highest education level. It is very possible that the limitations

of understanding and knowledge of patients affect the evaluation of service response time to the quality of service to be irrelevant. Calculation of the number of ratios between staff and the number of patient visits that should also be a concern for the emergency room management because it will be a factor that can affect the response time of officers to patient acceptance.

### Conclusion

The researchers concluded that based on the results of the analysis of the relationship between the response time of service to the quality of services performed in the scope of services of the Emergency Room Dr. Loekmono Hadi Kudus p value is 0.963 which is greater than the value of p value 0.05. This explains that there was no relationship between service response time and service quality. Based on this, the researcher suggests the need to calculate the ratio of the number of watchmen both doctors and nurses with the number of patient visits according to the standards set by the Indonesian Ministry of Health so that it is expected that the response time for services can be carried out properly.

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