



ANALYSIS OF FACTORS ASSOCIATED WITH SATISFACTION AMONG NON-JKN INPATIENTS

Dian Sari Murti^{1*}, Ahmad Dwi Prayitno¹, Ferly Oktriyedi²

¹Master of Public Health Study Program, STIK Bina Husada, Jl. Syech Abdul Somad No. 28, 22 Ilir, Bukit Kecil, Palembang, Sumatera Selatan 30131, Indonesia

²Master of Public Health Study Program, Universitas Anak Bangsa, Jl. Pinus I Nomor.693, Kacang Pedang, Gerunggang, Pangkal Pinang, Kepulauan Bangka Belitung 33684, Indonesia

[*diansarimurti@gmail.com](mailto:diansarimurti@gmail.com)

ABSTRACT

Patient satisfaction is an important indicator in assessing the quality of hospital services, especially for non-JKN patients who have greater freedom in choosing health facilities. This study aims to analyze factors related to satisfaction of non-JKN inpatients at RSUP Dr. Mohammad Hoesin Palembang. The study used an analytical observational design with a cross-sectional approach to 150 patients. Service quality is measured based on the SERVQUAL dimensions, namely tangibility, reliability, responsiveness, assurance, and empathy. Data were analyzed using the Chi-square test and multiple logistic regression. The research results showed that 81 respondents (54.0%) were satisfied with the service. Bivariate analysis showed that tangibility, reliability, responsiveness, assurance, and empathy were significantly related to patient satisfaction, while age, education, and employment were not significantly related. Multivariate analysis shows that education ($p=0.034$; $OR=0.158$), tangibility ($p=0.024$; $OR=3.563$), responsiveness ($p=0.001$; $OR=6.398$), and assurance ($p<0.001$; $OR=10.960$) are independently related to satisfaction. Assurance is the most dominant factor, while the model is able to explain 65.7% of the variation in patient satisfaction. Satisfaction of non-JKN inpatients is mainly influenced by service guarantee, responsiveness, physical evidence, and level of education. Hospitals need to improve the competency and professionalism of staff, speed of response, clarity of information, security of services, and comfort of facilities.

Keywords: inpatient care; non-JKN; patient satisfaction; service quality; SERVQUAL

INTRODUCTION

Inpatient care is a core hospital service that significantly shapes the patient experience, as it entails around-the-clock, intensive interaction with healthcare personnel, service systems, and the hospital's physical environment. Within the framework of quality management, patient satisfaction serves as a crucial indicator for assessing the extent to which services meet patients' needs and expectations. This satisfaction is influenced by various factors, such as communication, trust, service reliability, staff responsiveness, and the comfort of the care environment (Tappy & Mandagi, 2024). Furthermore, patient satisfaction reflects the overall assessment of the experience following the receipt of inpatient care (Vanchapo & Magfiroh, 2022).

The World Health Organization emphasizes that quality healthcare services must be patient-centered, with patient satisfaction serving as a key indicator. Communication barriers, long wait times, service inadequacies, and poor staff responsiveness are factors that frequently trigger patient complaints (Mahaida et al., 2025). Variations in satisfaction levels regarding healthcare systems are also observed across different countries. The Commonwealth Fund reports that public satisfaction with healthcare systems in Switzerland and Norway exceeds 75%, whereas in the United States, it stands at only around 55% (The Commonwealth Fund, 2023).

In Indonesia, patient satisfaction at government hospitals is measured through the Community Satisfaction Index based on nine elements of service as regulated in the Minister of State Apparatus

Empowerment and Bureaucratic Reform Regulation Number 14 of 2017. Based on the Key Performance Indicator for Vertical Hospitals of the Ministry of Health in 2025, the achievement of the Community Satisfaction Index for type I vertical hospitals of the Ministry of Health is 88.2, while RSUP Dr. Mohammad Hoesin Palembang as a type II vertical hospital achieved 88.4 from the target of more than 76.61. Meanwhile, the average achievement of the Community Satisfaction Index for regional hospitals in Palembang City is 86. This measurement is carried out in all service units without distinguishing between patient funding sources, both JKN and non-JKN.

Overall, the 2025 Public Satisfaction Index results for RSUP Dr. Mohammad Hoesin Palembang indicate a positive performance. However, the survey respondents were predominantly JKN patients, as approximately 96.5% of inpatients in 2025 were JKN participants. This dominance reflects the hospital's role as a national referral center, where high patient volumes are largely driven by the referral system and government financing mechanisms. Consequently, specific data regarding the satisfaction of non-JKN patients is not clearly captured—despite this group having greater freedom of choice regarding hospitals and potentially holding different expectations for the services provided.

Assessing the satisfaction of non-JKN patients is crucial because the decision to choose and return to a service is driven more by perceptions of service quality than by the referral system. Furthermore, inpatient services hold strategic importance for the hospital's sustainability. Internal data from 2025 indicates that inpatient services contribute approximately 68% of the hospital's total revenue. Consequently, enhancing service quality and satisfaction among non-JKN inpatients has the potential to boost trust, loyalty, repeat visits, recommendations to others, and the hospital's financial sustainability.

Service quality can be analyzed using the SERVQUAL model, which comprises five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 2002; Li et al., 2015). The tangibles dimension relates to physical facilities, cleanliness, comfort, and the appearance of staff. The reliability dimension reflects the ability to provide service accurately and consistently, whereas responsiveness concerns the speed and willingness of staff to assist patients. The assurance dimension encompasses staff competence, courtesy, safety, and the ability to build trust. Meanwhile, empathy describes the attention and care staff show toward the needs of each patient.

Previous studies have largely compared satisfaction between JKN and non-JKN patients in general terms. Kusumaningtyas et al., (2024) found that JKN patients reported higher satisfaction than non-JKN patients based on the HCAHPS survey, whereas Suryaningrat and Indrayathi (2022) reported that non-JKN patients were more satisfied with aspects of clinical and administrative services. A systematic review by Sumadi and Pratama (2024) also indicates that research findings regarding satisfaction differences between JKN and non-JKN patients remain inconsistent. Although the SERVQUAL model has been widely used to measure healthcare service quality, research specifically analyzing the satisfaction of non-JKN inpatients in Type A hospitals remains limited.

This situation indicates a research gap: a lack of adequate information regarding the service quality dimensions most strongly associated with the satisfaction of non-JKN inpatients at RSUP Dr. Mohammad Hoesin Palembang. Such information is crucial because non-JKN patients have a wider range of options when selecting healthcare facilities, and decisions regarding the continued use of services are heavily influenced by their actual experiences. Based on a preliminary study and internal hospital data, an analysis specifically evaluating the satisfaction of this patient group is required.

This study aims to analyze the factors associated with the satisfaction of non-JKN inpatients at Dr. Mohammad Hoesin Central General Hospital, Palembang, in 2026, based on the SERVQUAL dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The findings are expected to serve as a basis for formulating strategies to improve service quality, strengthen patient loyalty and retention, and enhance the hospital's competitiveness and sustainability.

METHOD

This study employs a quantitative method with an analytic observational design and a cross-sectional approach. It aims to analyze factors associated with the satisfaction of non-JKN inpatients at Dr. Mohammad Hoesin Central General Hospital (RSUP) in Palembang. Measurements of patient characteristics, service quality, and satisfaction were conducted during a single observation period. The study was conducted at the inpatient unit of RSUP Dr. Mohammad Hoesin Palembang in 2026. The study population consisted of all non-JKN inpatients receiving care at the hospital during the study period. The sample comprised 150 respondents, selected sequentially from patients meeting the study criteria until the required sample size was reached.

The dependent variable is the satisfaction of non-JKN inpatients, categorized as satisfied or dissatisfied. Independent variables include age, education, occupation, and the five SERVQUAL service quality dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Age is categorized into young and elderly; education into high school or lower and higher than high school; and occupation into employed and unemployed. The tangibility dimension measures patients' perceptions regarding cleanliness, the comfort of the treatment area, the completeness of facilities, the condition of equipment, and the appearance of staff. The reliability dimension assesses the staff's ability to provide services in a timely, consistent, and accurate manner, in accordance with established procedures. The responsiveness dimension measures the speed and willingness of staff to assist and respond to patients' needs. The assurance dimension evaluates competence, courtesy, the safety of procedures, the clarity of information, and the staff's ability to instill trust in patients. The empathy dimension measures individual attention, care, friendliness, the ability to listen to complaints, and the staff's understanding of patients' needs.

Data processing involved the stages of editing, coding, entry, cleaning, and tabulation. Univariate analysis was conducted to describe the frequency distribution and percentage of each variable. Bivariate analysis employed the Chi-square test or Fisher's exact test to analyze the relationship between each independent variable and patient satisfaction. The magnitude of the association was expressed using odds ratios and 95% confidence intervals, with a significance level of $p < 0.05$. Variables with p -values < 0.25 from the candidate selection stage were included in a multiple logistic regression analysis using the backward elimination method. Variables with the highest p -values were removed sequentially until a final model was obtained. The multivariate analysis results are presented as regression coefficients, p -values, adjusted odds ratios ($\text{Exp}(B)$), and 95% confidence intervals. The variable with the highest statistically significant $\text{Exp}(B)$ value was identified as the factor most dominantly associated with patient satisfaction.

The model's ability to explain the variation in patient satisfaction was assessed using Nagelkerke R-squared and Cox and Snell R-squared. The probability of satisfaction was calculated based on the final logistic regression model using the equation:

$$P = \frac{1}{(1 + e^{-y})}$$

where P is the probability of liver dysfunction, e is the exponential constant (approximately 2.718), and y is a linear combination of predictor factors, expressed as:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

In the equation, β_0 represents the constant (intercept), and β_i is the regression coefficient for each independent variable (X_i). A positive β value indicates that the variable increases the likelihood of satisfaction, whereas a negative value indicates a protective effect.

RESULT AND DISCUSSION

Analysis of Factors Associated with Inpatient Satisfaction (Non-JKN)

Table 1.

Results of the Analysis of Factors Associated with Inpatient Satisfaction (Non-JKN)

Variable	Catagory	Dissatisfied	Satisfied	Total	P-Value	OR CI 95%
Age	Young	55	55	110	0.149	1.857 0.878-3.930
		50.0%	50.0%	100.0%		
	Elderly	14	26	40		
		35.0%	65.0%	100.0%		
Education	< SMA (High School)	5	13	18	0.161	0.409 0.138-1.211
		27.8%	72.2%	100.0%		
	> SMA (High School)	64	68	132		
		48.5%	51.5%	100.0%		
Occupation	Unemployed	33	32	65	0.390	1.404 0.733-2.687
		50.8%	49.2%	100.0%		
	Employed	36	49	85		
		42.4%	57.6%	100.0%		
Tangibility	Poor	40	11	51	0.000	8.777 3.962- 19.444
		78.4%	21.6%	100.0%		
	Good	29	70	99		
		29.3%	70.7%	100.0%		
Reliability	Poor	59	27	86	0.000	11.800 5.228- 26.633
		68.6%	31.4%	100.0%		
	Good	10	54	64		
		15.6%	84.4%	100.0%		
Responsiveness	Poor	55	13	68	0.000	20.549 8.921- 47.334
		80.9%	19.1%	100.0%		
	Good	14	68	82		
		17.1%	82.9%	100.0%		
Assurance	Poor	80.0%	20.0%	75	0.000	29.333 11.958- 71.954
		9	66	100.0%		
	Good	12.0%	88.0%	75		
		80.0%	20.0%	100.0%		
Emphaty	Poor	51	16	67	0.000	11.510 5.347- 24.780
		76.1%	23.9%	100.0%		
	Good	18	65	83		
		21.7%	78.3%	100.0%		

The analysis results indicate that age, education, and occupation are not significantly associated with patient satisfaction, as they yielded p-values greater than 0.05. Conversely, tangibility, reliability, responsiveness, assurance, and empathy are significantly associated with patient satisfaction, with p-values less than 0.001. Patients who rated tangibility poorly were 8.777 times more likely to be dissatisfied. Poor ratings for reliability increased the likelihood of dissatisfaction by 11.800 times; for responsiveness, by 20.549 times; for assurance, by 29.333 times; and for empathy, by 11.510 times. Thus, all SERVQUAL dimensions are associated with the satisfaction of non-JKN inpatients. The assurance dimension shows the strongest association with patient dissatisfaction.

Multivariate Candidate Variable Model Selection

Table 2.
Candidate Variable Selection for Multivariate Analysis

Age	0,101	Included in Model
Education	0,092	Included in Model
Occupation	0,305	Not Included in Model
Tangibility	0,000	Included in Model
Reability	0,000	Included in Model
Responsiveness	0,000	Included in Model
Assurance	0,000	Included in Model
Empathy	0,004	Included in Model

Based on the results of the variable selection for multivariate analysis, variables with p-values < 0.25 were included in the model, whereas variables with p-values > 0.25 were not. The variables included in the multivariate model were age (p = 0.101), education (p = 0.092), tangibility (p = 0.000), reliability (p = 0.000), responsiveness (p = 0.000), assurance (p = 0.000), and empathy (p = 0.004). Meanwhile, the occupation variable had a p-value of 0.305 and was therefore not included in the multivariate model. Thus, there are seven candidate variables to be further analyzed in the multivariate logistic regression: age, education, tangibility, reliability, responsiveness, assurance, and empathy.

Multivariate Logistic Regression Analysis Results

Table 3.
Multivariate Logistic Regression Analysis Results

		B	Sig.	Exp(B)	95% C.I. for EXP(B)	
					Lower	Upper
Step 1 ^a	Age	.559	.405	1.750	.468	6.536
	Education	-1.486	.112	.226	.036	1.413
	Tangibility	1.274	.033	3.576	1.109	11.535
	Realibility	.488	.443	1.629	.468	5.666
	Responsiveness	1.755	.002	5.783	1.894	17.660
	Assurance	2.179	.001	8.835	2.325	33.570
	Emphaty	-.041	.952	.960	.257	3.583
	Constant	-6.322	.007	.002		
Step 2 ^a	Age	.557	.407	1.745	.469	6.498
	Education	-1.484	.112	.227	.036	1.414
	Tangibility	1.265	.029	3.544	1.139	11.030
	Realibility	.478	.437	1.614	.482	5.397
	Responsiveness	1.750	.002	5.757	1.903	17.419
	Assurance	2.161	.000	8.681	2.602	28.968
	Constant	-6.325	.007	.002		
Step 3 ^a	Age	.537	.420	1.712	.463	6.324
	Education	-1.618	.075	.198	.033	1.175
	Tangibility	1.326	.020	3.765	1.229	11.532
	Responsiveness	1.784	.001	5.954	1.979	17.910
	Assurance	2.409	.000	11.124	3.890	31.811
	Constant	-5.893	.009	.003		
Step 4 ^a	Education	-1.847	.034	.158	.029	.868
	Tangibility	1.271	.024	3.563	1.178	10.774
	Responsiveness	1.856	.001	6.398	2.155	18.992
	Assurance	2.394	.000	10.960	3.867	31.059
	Constant	-4.806	.006	.008		

Multivariate logistic regression using the backward elimination method showed that the variables of empathy, reliability, and age were gradually excluded due to p-values > 0.05. The final model comprised education, tangibility, responsiveness, and assurance, all of which were significantly associated with patient satisfaction. Patients with higher education levels had 0.158 times the odds of

satisfaction compared to those with lower education levels ($p=0.034$; 95% CI 0.029–0.868). Patients who rated tangibility favorably had 3.563 times higher odds of satisfaction ($p=0.024$; 95% CI 1.178–10.774); those rating responsiveness favorably had 6.398 times higher odds ($p=0.001$; 95% CI 2.155–18.992); and those rating assurance favorably had 10.960 times higher odds ($p<0.001$; 95% CI 3.867–31.059). Thus, education, tangibility, responsiveness, and assurance are factors independently associated with patient satisfaction. Assurance emerged as the most dominant factor, as it exhibited the highest odds ratio (OR).

R-squared Analysis

Table 4.
R-Square Analysis Results

Description	Value
Nagelkerke R Square	0,657
Cox & Shell R Square	0,492

Based on the logistic regression analysis, a Nagelkerke R-Square value of 0.657 was obtained. This value indicates that the variables of education, tangibility, responsiveness, and assurance in the final model explain 65.7% of the variation in respondent satisfaction levels. Meanwhile, the remaining 34.3% is explained by other factors not included in the research model. The Cox & Snell R-Square value of 0.492 indicates that the independent variables in the model explain 49.2% of the variation in satisfaction levels. In logistic regression, the Nagelkerke R-Square value is more commonly used because it is adjusted to yield a range between 0 and 1. Thus, the resulting logistic regression model possesses relatively strong explanatory power. Education, tangibility, responsiveness, and assurance collectively make a significant contribution to explaining respondent satisfaction levels.

Analysis of Satisfaction Probability

This logistic regression model describes the relationship between the independent variables and the probability of satisfaction using the following formula:

$$Y = -4,806 - 1,847(\text{Education}) + 1,271(\text{Tangibility}) + 1,856(\text{Responsiveness}) + 2,394(\text{Assurance})$$

Table 5.
Satisfaction Probability Analysis Results

No.	Education	Tangibility	Responsiveness	Assurance	Probabilitas
1	Low	Poor	Poor	Poor	0,81%
2	Low	Poor	Poor	Good	8,23%
3	Low	Poor	Good	Poor	4,97%
4	Low	Poor	Good	Good	36,45%
5	Low	Good	Poor	Poor	2,83%
6	Low	Good	Poor	Good	24,21%
7	Low	Good	Good	Poor	15,72%
8	Low	Good	Good	Good	67,15%
9	Higher	Poor	Poor	Poor	0,13%
10	Higher	Poor	Poor	Good	1,39%
11	Higher	Poor	Good	Poor	0,82%
12	Higher	Poor	Good	Good	8,29%
13	Higher	Good	Poor	Poor	0,46%
14	Higher	Good	Poor	Good	4,80%
15	Higher	Good	Good	Poor	2,86%
16	Higher	Good	Good	Good	24,38%

Based on the satisfaction probability analysis, the highest probability value (67.15%) was found among respondents with a low level of education who experienced good tangibility, responsiveness, and assurance. This indicates that a combination of high-quality service across the dimensions of tangibility, responsiveness, and assurance yields the greatest likelihood of satisfaction for this group. Conversely, the lowest satisfaction probability (0.13%) was observed among respondents with a high level of education who experienced poor for tangibility, responsiveness, and assurance. In general,

the probability of satisfaction tends to increase when tangibility, responsiveness, and assurance fall into the "good" category. Among these three service dimensions, assurance appears to drive the most significant increase in probability, a finding consistent with the logistic regression results identifying assurance as the most dominant variable. However, the results also reveal that, given the same combination of service conditions, highly educated respondents exhibit a lower probability of satisfaction compared to those with lower levels of education. This suggests that respondents with higher education levels likely hold higher expectations and service standards, making them more critical in their assessment of the service received.

The variables of age, education, tangibility, reliability, responsiveness, assurance, and empathy met the $p < 0.25$ criterion and were included as candidates for multivariate analysis, whereas occupation was excluded due to a p-value of 0.305 (Study primary data, 2026). The use of a $p < 0.25$ threshold for initial selection aimed to retain variables that might not yet be significant at the bivariate level but could emerge as predictors or confounding factors when analyzed alongside other variables.

In the backward elimination process, empathy was removed first due to having the highest p-value, followed by reliability and age (Study primary data, 2026). The final model comprised education, tangibility, responsiveness, and assurance, all of which had p-values < 0.05 (Study primary data, 2026). These results indicate that the satisfaction of non-JKN patients is more strongly explained by tangible service experiences than by general patient characteristics. This finding aligns with research by Xu et al., which demonstrated that service dimensions remain predictors of satisfaction even after controlling for age, education, occupation, and payment method in the analysis (Xu et al., 2026).

Inpatient satisfaction results from a patient's evaluation of the alignment between pre-service expectations and the actual experience during hospital care (Rahmatia et al., 2025). Satisfaction is determined not only by clinical outcomes but also by communication, environmental comfort, procedural accuracy, response speed, a sense of safety, and the individual attention provided by healthcare personnel (Xu et al., 2026). The SERVQUAL model explains service quality through the dimensions of tangibility, reliability, responsiveness, assurance, and empathy, which collectively influence inpatient satisfaction (Rahmatia et al., 2025).

Research by Rahmatia et al. indicates that all five SERVQUAL dimensions are associated with patient satisfaction and collectively explain 67.7% of the variation in inpatient satisfaction (Rahmatia et al., 2025). Recent research in tertiary hospitals also indicates that healthcare worker communication, the hospital environment, service processes, medical technology, and service costs are key determinants of patient satisfaction during hospitalization (Xu et al., 2026). In this study, service factors demonstrated a stronger relationship with satisfaction than patient characteristics—specifically through the dimensions of tangibility, responsiveness, and assurance, which remained significant in the final model (Study primary data, 2026). This pattern aligns with the findings of Xu et al., who observed that perceptions of the service received were a more direct and potent determinant of satisfaction than most sociodemographic patient characteristics (Xu et al., 2026).

The Relationship Between Age and Patient Satisfaction

The study results indicate that 50.0% of younger patients were satisfied, whereas 65.0% of elderly patients were satisfied (Primary study data, 2026). The p-value of 0.149 and OR of 1.857 (95% CI: 0.878–3.930) demonstrate that age is not significantly associated with patient satisfaction in the bivariate analysis (Primary study data, 2026). Younger patients were 1.857 times more likely to be dissatisfied than elderly patients; however, this association was not statistically significant, as the confidence interval included the value of one (Primary study data, 2026). Theoretically, age can shape a patient's expectations, communication style, experience with healthcare services, and tolerance for service limitations (Abebe et al., 2024). Older patients generally possess more experience using

healthcare facilities and may hold more realistic expectations regarding hospital service processes (Głowacka et al., 2024). Conversely, younger patients may be accustomed to rapid service, digital information systems, ease of access, and transparent communication, leading them to be more critical when service processes fail to meet their expectations (Xu et al., 2026). These findings align with the study by Xu et al., which found no direct association between age and inpatient satisfaction once service factors were accounted for in the analysis (Xu et al., 2026). However, a study by Abebe et al. found that specific age groups reported lower satisfaction levels regarding nursing care, suggesting that the relationship between age and satisfaction may vary depending on the population and service characteristics (Abebe et al., 2024).

In the actual setting, both younger and elderly non-JKN patients receive care within the same inpatient system; consequently, experiences regarding facilities, response speed, staff competence, and service safety are more likely to determine satisfaction than the patient's age itself (Abebe et al., 2024). The higher proportion of satisfaction among elderly patients may indicate that they possess different levels of tolerance, acceptance, or expectations regarding the service process compared to younger patients processes (Głowacka et al., 2024). In the multivariate analysis, age did not show a significant relationship with satisfaction and was excluded from the model at Step 3 ($p=0.420$) (Study primary data, 2026). The researchers assume that age is not a direct determinant of satisfaction, as its influence diminishes when the quality of tangible elements, responsiveness, and service assurance are analyzed collectively (Xu et al., 2026). Consequently, efforts to enhance satisfaction should not be differentiated solely by age but should instead focus on improving the service experience for all patient groups.

The Relationship Between Education and Patient Satisfaction

The study results indicate that 72.2% of patients with lower levels of education were satisfied, whereas 51.5% of patients with higher levels of education were satisfied (Primary research data, 2026). A p -value of 0.161 and an OR of 0.409 (95% CI: 0.138–1.211) indicate that education was not significantly associated with satisfaction in the bivariate analysis (Primary research data, 2026). Theoretically, education can influence a patient's ability to seek information, understand procedures, compare service alternatives, assess the competence of healthcare personnel, and voice complaints during treatment (Li et al., 2024). Patients with higher levels of education generally have broader access to information and more complex standards of assessment; consequently, they tend to be more critical of discrepancies between expected and received care (Xu et al., 2026). Findings from previous studies regarding education have been inconsistent; some research indicates that education influences satisfaction, while other studies find no association once service quality is controlled for (Li et al., 2024; Xu et al., 2026). by Xu et al. shows that education is not directly associated with inpatient satisfaction, whereas factors such as communication, the environment, service processes, technology, and cost exert a stronger influence (Xu et al., 2026).

In the multivariate analysis, however, education became significant after controlling for tangibility, responsiveness, and assurance ($B = -1.847$, $p = 0.034$, $\text{Exp}(B) = 0.158$, 95% CI: 0.029–0.868) (Primary research data, 2026). When higher education is coded as 1 and satisfaction serves as the outcome, patients with higher education levels have 0.158 times the odds of satisfaction compared to those with lower education levels—representing an 84.2% decrease in the odds of satisfaction after controlling for other service dimensions (Primary research data, 2026). The shift from non-significance in the bivariate analysis to significance in the multivariate analysis may indicate a suppression effect, wherein the influence of education becomes more apparent once differences in service quality are controlled for. Non-JKN patients—who pay for services out-of-pocket or through non-JKN financing—may harbor higher expectations regarding personal attention, cost transparency, flexibility, comfort, and detailed communication (Xu et al., 2026). These expectations are likely even

higher among highly educated patients, as they are better equipped to seek information and compare services across hospitals.

In practice, the satisfaction of highly educated patients likely depends not only on service availability but also on the accuracy of information, consistency of explanations, process transparency, comfort, and patient involvement in decision-making. Clear, patient-centered communication has been shown to correlate with increased trust and satisfaction regarding hospital services (Jameel et al., 2025). The researchers hypothesize that higher education is associated with a lower likelihood of satisfaction because highly educated patients possess higher expectations and standards for evaluating services. These findings do not imply that higher education causes dissatisfaction; rather, they indicate that hospitals need to address the more complex information needs and service expectations of this demographic.

The Relationship Between Occupation and Patient Satisfaction

The study results indicate that 49.2% of patients who were not employed reported satisfaction, compared to 57.6% of employed patients (Study primary data, 2026). The p-value of 0.390 and an OR of 1.404 (95% CI: 0.733–2.687) demonstrate that employment status is not significantly associated with patient satisfaction (Study primary data, 2026). Employment can reflect socioeconomic status, ability to pay, time constraints, access to information, and patient experience with public and private services (Li et al., 2024). Employed patients may have higher expectations regarding service speed and punctuality, as service delays could potentially disrupt their work activities and productivity (Fauzana & Utama, 2025). Research by Xu et al. indicates that employment is not significantly associated with inpatient satisfaction once service quality factors are accounted for (Xu et al., 2026). However, studies on humanistic care have found differences in satisfaction based on employment, suggesting that the influence of employment likely depends on social context, service type, financing systems, and patient population characteristics (Li et al., 2024).

In practice, both employed and unemployed patients receive the same clinical processes, inpatient facilities, and staff interactions. Differences in employment status may not exert a direct influence if the patients' primary needs—such as safety, staff responsiveness, comfort, and clarity of information—are met. The researchers hypothesize that employment is unrelated to satisfaction because employment status is merely an indirect characteristic, whereas satisfaction is more directly influenced by the actual experience during treatment. Furthermore, the employment variable was categorized simply as "employed" or "unemployed," failing to capture details such as job type, income, work flexibility, financial dependents, or the level of work-related stress.

The Relationship Between Tangibility and Patient Satisfaction

Research results indicate that only 21.6% of patients who rated tangibility poorly reported satisfaction, whereas 70.7% of those who rated tangibility favorably were satisfied (Primary research data, 2026). A p-value <0.001 and an OR of 8.777 (95% CI: 3.962–19.444) demonstrate that patients who rated tangibility poorly were 8.777 times more likely to be dissatisfied compared to those who rated it favorably (Primary research data, 2026). The tangibility dimension encompasses the condition of the building, patient rooms, beds, restrooms, cleanliness, lighting, ventilation, medical equipment, staff appearance, information signage, and supporting facilities that are directly visible to patients (Rahmatia et al., 2025). Physical conditions serve as evidence used by patients to assess hospital quality, as most patients lack the competence to directly evaluate the technical quality of clinical services (Jameel et al., 2025).

Research by Jameel et al. shows that hospital environmental cleanliness has a positive effect on patient satisfaction, an effect that is further reinforced by patient trust in the hospital (Jameel et al., 2025). A study by Rahmatia et al. also found a significant association between tangibility and

inpatient satisfaction, although the strength of this influence was lower than that of empathy, assurance, and responsiveness (Rahmatia et al., 2025). Research by Xu et al. confirms that the hospital environment—including the condition of patient rooms and food quality—influences inpatient satisfaction (Xu et al., 2026).

In the final model, tangibility remained independently associated with satisfaction, with a p-value of 0.024, an Exp(B) of 3.563, and a 95% CI of 1.178–10.774 (Primary research data, 2026). Patients who rated tangibility favorably were 3.563 times more likely to be satisfied than those who rated it unfavorably, after controlling for education, responsiveness, and assurance (primary research data, 2026). In a real-world setting, inpatients utilize hospital facilities around the clock; consequently, they continuously experience aspects such as cleanliness, comfort, quietness, facility availability, restroom conditions, bed quality, and the overall appearance of the environment. Patients not covered by the JKN scheme likely hold higher expectations regarding comfort and the completeness of facilities, as they pay out-of-pocket or select specific service classes (Xu et al., 2026). The researchers posit that tangibility is linked to satisfaction because the physical environment serves as the most readily observable and assessable evidence of service for patients. Spaces that are clean, tidy, quiet, and safe—and equipped with well-functioning facilities—can reduce anxiety and foster the impression that the hospital is professionally managed (Jameel et al., 2025).

The Relationship of Reliability with Patient Satisfaction

Research findings indicate that 31.4% of patients who rated reliability as poor reported satisfaction, whereas 84.4% of those who rated reliability as good reported satisfaction (Study primary data, 2026). A p-value <0.001 and an OR of 11.800 (95% CI: 5.228–26.633) demonstrate that a poor reliability rating increases the odds of dissatisfaction by 11.800 times compared to a good reliability rating (Study primary data, 2026). The reliability dimension reflects a hospital's ability to provide services that are precise, correct, consistent, timely, and aligned with promises or information previously conveyed to patients (Rahmatia et al., 2025). In inpatient care, reliability is evidenced by the accuracy of medication administration, consistency of physician rounds, precision of examinations, continuity of information among staff, procedural accuracy, and the reliability of administrative processes. Research by Rahmatia et al. found that reliability significantly influences inpatient satisfaction, as patients require predictable and trustworthy services during their treatment (Rahmatia et al., 2025). Similarly, a study by Xu et al. showed that the precision of medical processes and procedural efficiency are positively associated with inpatient satisfaction (Xu et al., 2026).

Although strongly associated in the bivariate analysis, reliability was no longer significant in the multivariate analysis ($p=0.437$) and was excluded from the model at Step 3 (Study primary data, 2026). This suggests that the relationship between reliability and satisfaction likely overlaps with the dimensions of responsiveness and assurance. Patients perceive service as reliable when staff respond quickly, provide consistent information, perform actions accurately, and demonstrate convincing competence. Consequently, the influence of reliability observed in the bivariate analysis was likely partially accounted for by the responsiveness and assurance dimensions within the multivariate model. In a real-world setting, service reliability remains crucial, as inpatients depend on the accuracy of procedures and the continuity of care across different wards and professional disciplines. However, once patients perceive staff as responsive and capable of ensuring safety, reliability may no longer be viewed as a standalone factor. The researchers posit that the lack of statistical significance for "reliability" in the final model does not imply it is unimportant; rather, it indicates strong conceptual interrelationships among the SERVQUAL dimensions. An examination of inter-variable correlations, tolerance values, and variance inflation factors is necessary to ensure the absence of multicollinearity that could affect the stability of the regression coefficients.

The Relationship Between Responsiveness and Patient Satisfaction

Research results indicate that 19.1% of patients who rated responsiveness as poor reported satisfaction, whereas 82.9% of those who rated responsiveness as good reported satisfaction (Study primary data, 2026). A p-value <0.001 and an OR of 20.549 (95% CI: 8.921–47.334) indicate that poor responsiveness increases the odds of dissatisfaction by a factor of 20.549 compared to good responsiveness (Study primary data, 2026). The responsiveness dimension reflects the willingness and speed of staff in assisting patients, responding to complaints, providing information, meeting needs, and addressing issues during service delivery (Rahmatia et al., 2025). In inpatient care, responsiveness is evident in the speed of answering patient call bells, responding to pain or complaints, assisting with basic needs, providing test results, and completing the discharge process. Research by Fauzana and Utama found that responsiveness is the most influential factor regarding patient satisfaction in government hospitals, particularly when patients face long wait times, unclear communication, and a lack of information updates (Fauzana & Utama, 2025). The study also demonstrated that positive ratings for empathy and assurance could not fully compensate for dissatisfaction caused by delays and unclear service processes (Fauzana & Utama, 2025). Research by Rahmatia et al. similarly identified responsiveness as one of the dimensions with the greatest impact on inpatient satisfaction (Rahmatia et al., 2025).

In the final model, responsiveness remained significantly associated with satisfaction ($p=0.001$, $\text{Exp}(B)=6.398$, 95% CI: 2.155–18.992) (Study primary data, 2026). Patients who rated responsiveness as good had 6.398 times higher odds of being satisfied compared to those who rated responsiveness as poor, after controlling for education, tangibility, and assurance (Study primary data, 2026). In a real-world setting, inpatients are unwell and rely on staff to meet both their clinical and non-clinical needs. Delayed responses can lead to anxiety, feelings of neglect, uncertainty, and the perception that the hospital does not prioritize patient needs (Fauzana & Utama, 2025). Non-JKN patients who pay out-of-pocket are likely more sensitive to service delays and expect easy access as well as prompt attention (Xu et al., 2026). The researchers posit that responsiveness is strongly linked to satisfaction because the speed of service and willingness to assist are immediately apparent to patients when they require care. A rapid response also conveys that patient concerns are valued, thereby fostering a sense of security and trust in the hospital.

The Relationship Between Assurance and Patient Satisfaction

Based on the revised data arrangement in the table, the group rating assurance as poor consisted of 60 dissatisfied patients and 15 satisfied patients, whereas the group rating assurance as good consisted of 9 dissatisfied patients and 66 satisfied patients (Study primary data, 2026). The satisfaction rate in the poor assurance group was 20.0%, while in the good assurance group, it reached 88.0% (Study primary data, 2026). A p-value <0.001 and an OR of 29.333 (95% CI: 11.958–71.954) indicate that poor assurance increases the odds of dissatisfaction by 29.333 times compared to good assurance (Study primary data, 2026). The assurance dimension encompasses competence, knowledge, courtesy, safety, confidentiality, the accuracy of explanations, and the staff's ability to instill patient trust (Rahmatia et al., 2025). Service assurance is crucial because patients are not always able to assess the technical accuracy of medical procedures; consequently, they rely on the attitudes, communication, and confidence displayed by staff to evaluate the safety of the service. Research by Rahardjo et al. found that assurance and patient safety significantly influence patient satisfaction, whereas other SERVQUAL dimensions did not show a direct effect (Rahardjo et al., 2025). Rahmatia et al. also identified assurance as one of the dimensions with the greatest impact on inpatient satisfaction, second only to empathy (Rahmatia et al., 2025). Clear and professional communication has been shown to enhance patient trust, thereby strengthening satisfaction with the service (Jameel et al., 2025).

In the final model, assurance yielded a p-value <0.001 , $\text{Exp(B)}=10.960$, and a 95% CI of 3.867–31.059 (Study primary data, 2026). Patients who rated assurance favorably were 10.960 times more likely to be satisfied than those who rated it unfavorably, after controlling for education, tangibility, and responsiveness (primary research data, 2026). Assurance emerged as the most dominant factor, exhibiting the highest Exp(B) value in the final model (primary research data, 2026). In the setting of a Type A referral hospital, patients undergo complex examinations and procedures while interacting with various healthcare professionals. Under these circumstances, convincing explanations, staff competence, continuity of information, privacy protection, procedural safety, and certainty regarding the care plan become crucial in shaping patient satisfaction.

Non-JKN patients have a wider range of choices regarding healthcare facilities and may place higher demands on competence, communication, safety, and service transparency (Xu et al., 2026). When staff demonstrate professionalism and provide consistent explanations, patients feel more secure and confident that the costs incurred align with the quality of care received. The researchers posit that assurance is the most dominant factor because a sense of security and trust constitutes a primary need for patients undergoing treatment. Excellent facilities and rapid responses remain insufficient if patients harbor doubts about staff competence, the safety of procedures, or the clarity of the information provided.

The Relationship Between Empathy and Patient Satisfaction

Research results indicate that 23.9% of patients who rated empathy as poor reported satisfaction, whereas 78.3% of those who rated empathy as good reported satisfaction (Primary research data, 2026). A p-value <0.001 and an OR of 11.510 (95% CI: 5.347–24.780) indicate that poor empathy increases the likelihood of dissatisfaction by 11.510 times compared to good empathy (Primary research data, 2026). The empathy dimension encompasses the staff's ability to provide individual attention, listen to complaints, respect patient needs and preferences, use easily understandable language, and demonstrate concern for the patient's emotional state (Rahmatia et al., 2025). Individual attention is crucial because inpatients may experience anxiety, uncertainty, dependency, and a loss of control during their treatment (Xu et al., 2026). Research by Rahmatia et al. found that empathy is the SERVQUAL dimension with the greatest influence on inpatient satisfaction (Rahmatia et al., 2025). However, a study by Rahardjo et al. did not find a direct effect of empathy on satisfaction when other service dimensions and patient safety were analyzed simultaneously (Rahardjo et al., 2025). Research by Fauzana and Utama also indicates that good empathy does not always mitigate dissatisfaction if patients still experience delays and a lack of clarity in service processes (Fauzana & Utama, 2025).

In this study, empathy was no longer significant in Step 1 of the multivariate analysis ($p=0.952$, $\text{Exp(B)}=0.960$) and was therefore excluded from the model (Primary research data, 2026). The discrepancy between the bivariate and multivariate results suggests that the influence of empathy likely overlaps with responsiveness and assurance. Staff who respond promptly, provide polite explanations, and foster a sense of security may also be perceived as empathetic. In a real-world clinical setting, attentiveness and friendliness remain important; however, non-JKN patients likely expect empathy to be accompanied by tangible action. Merely listening to complaints without providing a prompt response or a clear resolution may not be sufficient to ensure satisfaction. Researchers hypothesized that empathy would correlate with satisfaction in the bivariate analysis, given that personalized attention shapes a patient's emotional experience. However, this effect became statistically insignificant when controlling for other variables, as empathy was already reflected in response speed, communication quality, courtesy, and the staff's ability to instill a sense of security.

Discussion of Multivariate Candidate Selection

The variables of age, education, tangibility, reliability, responsiveness, assurance, and empathy met the $p < 0.25$ criterion and were included as candidates for multivariate analysis, whereas occupation was excluded due to a p-value of 0.305 (Study primary data, 2026). The use of a $p < 0.25$ threshold for initial selection aimed to retain variables that might not yet be significant at the bivariate level but could emerge as predictors or confounding factors when analyzed alongside other variables. In the backward elimination process, empathy was removed first due to having the highest p-value, followed by reliability and age (Study primary data, 2026). The final model comprised education, tangibility, responsiveness, and assurance, all of which had p-values < 0.05 (Study primary data, 2026).

These results indicate that satisfaction among non-JKN patients is more strongly explained by tangible service experiences than by general patient characteristics. This finding aligns with research by Xu et al., which demonstrated that service dimensions remain predictors of satisfaction even after controlling for age, education, occupation, and payment method in the analysis (Xu et al., 2026). Nevertheless, education remained in the model and showed a negative relationship with satisfaction. This suggests that quality improvement efforts need to be accompanied by the segmentation of patient needs, as highly educated patients likely require more detailed information, greater transparency, and more active involvement in decision-making.

Discussion of the Final Logistic Regression Model

The final model indicates that assurance is the most dominant factor, with an $\text{Exp}(B)$ of 10.960, followed by responsiveness ($\text{Exp}(B) = 6.398$) and tangibility ($\text{Exp}(B) = 3.563$) (Study primary data, 2026). Higher education is associated with a lower likelihood of satisfaction ($\text{Exp}(B) = 0.158$) after controlling for the three service dimensions (Study primary data, 2026). The dominance of assurance suggests that patients are more likely to be satisfied when they trust the competence of healthcare personnel, the safety of procedures, the accuracy of information, and the professionalism of the service. These findings align with research by Rahardjo et al., which identified assurance and patient safety as key determinants of satisfaction (Rahardjo et al., 2025).

The significant influence of responsiveness indicates that patients also require prompt and easily accessible service during their care. This finding is consistent with research by Fauzana and Utama, which identified responsiveness as a strategic factor in shaping patient satisfaction in government hospitals (Fauzana & Utama, 2025). The association with tangibility demonstrates that the environment and facilities remain crucial elements, particularly because non-JKN patients can weigh the comfort and quality of facilities against the costs incurred. Cleanliness and environmental quality have been shown to influence satisfaction both directly and through patient trust (Jameel et al., 2025). The researchers posit that these three dimensions constitute a sequence of patient experiences: patients first assess the physical environment, then experience the speed of service, and finally form a conviction regarding the competence and safety of the care provided. The highest levels of satisfaction likely arise when all three aspects are fulfilled simultaneously.

The Ability of the Model to Explain Satisfaction

The Nagelkerke R-square value of 0.657 indicates that education, tangibility, responsiveness, and assurance explain 65.7% of the variation in satisfaction among non-JKN inpatients (Study primary data, 2026). The remaining 34.3% of the variation in satisfaction is explained by other factors not included in the research model (Study primary data, 2026). This value indicates that the model's explanatory power regarding satisfaction is strong and comparable to the study by Rahmatia et al., which achieved an explanatory power of 67.7% using the five SERVQUAL dimensions (Rahmatia et al., 2025). This similarity reinforces the validity of SERVQUAL as a relevant framework for assessing inpatient satisfaction.

Other factors that may explain the 34.3% variation in satisfaction include clinical outcomes, disease severity, cost, billing transparency, care class, length of stay, food quality, physician communication, nursing communication, admission and discharge processes, and prior service experiences (Xu et al., 2026). For non-JKN patients, cost transparency and the alignment between price and service quality are also likely to be significant factors, as direct payment can heighten patient attention to service quality and efficiency (Xu et al., 2026).

Discussion of Satisfaction Probability

The highest probability of satisfaction (67.15%) was observed among patients with lower levels of education who rated tangibility, responsiveness, and assurance as "good" (Study primary data, 2026). The lowest probability (0.13%) was found among patients with higher levels of education who rated these three service dimensions as "poor" (Study primary data, 2026). These results indicate that simultaneously improving all three service dimensions yields a significantly higher probability of satisfaction compared to improving a single dimension alone. Assurance contributed the greatest increase in probability, consistent with having the highest regression coefficient and Exp(B) value in the final model (Study primary data, 2026).

For patients with lower levels of education, shifting all dimensions from "poor" to "good" increased the probability of satisfaction from 0.81% to 67.15% (Study primary data, 2026). For patients with higher levels of education, the same shift increased the probability of satisfaction from 0.13% to 24.38% (Study primary data, 2026). This disparity demonstrates that high-quality service enhances satisfaction across both educational groups; however, patients with higher levels of education consistently exhibit a lower probability of satisfaction, likely due to higher expectations and service standards. These predicted probabilities should be interpreted as internal estimates based on the model and the coding of research variables. The model cannot be directly applied to other populations without first assessing model fit, calibration, classification performance, and external validity.

Implications of the Research Findings

Hospitals need to prioritize strengthening the "assurance" dimension by enhancing staff competence, ensuring information consistency, facilitating clear communication, protecting privacy, upholding patient safety, and providing certainty regarding care plans. Assurance and patient safety have been proven to be critical factors in fostering patient satisfaction and trust (Rahardjo et al., 2025). Responsiveness can be improved by establishing response time standards, monitoring patient call systems, providing updates on care progress, simplifying administrative processes, and handling complaints promptly. Delays and a lack of process transparency are major sources of dissatisfaction among patients at government hospitals (Fauzana & Utama, 2025). Efforts to enhance "tangibility" should focus on cleanliness, comfort, a quiet atmosphere, facility functionality, restroom conditions, bed quality, information signage, and staff appearance. Cleanliness and the service environment positively influence patient satisfaction and trust (Jameel et al., 2025).

Care for highly educated patients requires the provision of detailed information, transparency regarding procedures and costs, opportunities to ask questions, and patient involvement in decision-making. Patients who pay out-of-pocket tend to expect personal attention, comprehensive communication, flexibility, and a higher level of transparency (Xu et al., 2026). Improving satisfaction among non-JKN inpatients should be pursued through integrated interventions, as high-quality facilities alone (without rapid responsiveness and a sense of security) do not necessarily yield optimal satisfaction. Hospitals need to utilize satisfaction survey results categorized by payment segment to more accurately identify the needs and expectations of non-JKN patients.

CONCLUSION

The majority of non-JKN inpatients at Dr. Mohammad Hoesin General Hospital, Palembang, were satisfied with the services received. Bivariate analysis revealed that the dimensions of tangibility, reliability, responsiveness, assurance, and empathy were significantly associated with patient satisfaction, whereas age, education, and occupation showed no significant association. Multivariate analysis indicated that education, tangibility, responsiveness, and assurance were independently associated with patient satisfaction. Patients who rated tangibility favorably were 3.563 times more likely to be satisfied; those who rated responsiveness favorably were 6.398 times more likely to be satisfied; and those who rated assurance favorably were 10.960 times more likely to be satisfied. Assurance emerged as the most dominant factor associated with the satisfaction of non-JKN inpatients. Patients with higher levels of education showed a lower likelihood of satisfaction compared to those with lower levels of education (after controlling for service quality) suggesting that the former group likely holds higher expectations and standards regarding service. The research model explained 65.7% of the variation in patient satisfaction, while the remaining 34.3% was influenced by factors not examined in this study. Improving satisfaction among non-JKN inpatients should be prioritized by strengthening staff competence and professionalism, ensuring service safety, providing clear information, increasing response speed, and enhancing cleanliness, comfort, and the completeness of service facilities.

REFERENCES

- Abebe, D., Mesfin, S., Kenea, L. A., Alemayehu, Y., Andarge, K., & Aleme, T. (2024). Patient satisfaction and associated factors in Addis Ababa's public referral hospitals: Insights from 2023. *Frontiers in Medicine*, 11(1456566). <https://doi.org/10.3389/fmed.2024.1456566>
- Fauzana, A., & Utama, A. A. (2025). Does responsiveness dimensions play the key role in shaping patient satisfaction in public hospitals? *Journal of Research in Social Science and Humanities*, 5(2), 1–10. <https://doi.org/10.47679/jrssh.v5i1.325>
- Głowacka, M., Gasik, M., Kujawa, W., Cybulski, M., & Pluta, A. (2024). Assessment of patient expectations toward health professionals and quality of life among Płock (Poland) residents aged 55 and over: A cohort study. *Frontiers in Public Health*, 12(1434693). <https://doi.org/10.3389/fpubh.2024.1434693>
- Jameel, A., Sahito, N., Guo, W., & Khan, S. (2025). Assessing patient satisfaction with practitioner communication: Patient-centered care, hospital environment and patient trust in the public hospitals. *Frontiers in Medicine*, 12(1544498). <https://doi.org/10.3389/fmed.2025.1544498>
- Kementerian Kesehatan Republik Indonesia. (2025). *Key performance indicator rumah sakit vertikal Kementerian Kesehatan tahun 2025* [Data kinerja rumah sakit vertikal].
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia. (2017). *Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 14 Tahun 2017 tentang pedoman penyusunan survei kepuasan masyarakat unit penyelenggara pelayanan publik*. Berita Negara Republik Indonesia Tahun 2017 Nomor 708.
- Kusumaningtyas, A. F., Rohendi, A., & Kusnadi, D. (2024). Analisis Kepuasan Pasien Jkn Dan Non Jkn Menggunakan Hospital Consumer Assessment Healthcare Providers And Systems (Hcahps) Di Rumah Sakit Pertamina Kabupaten Cilacap. *Paradoks: Jurnal Ilmu Ekonomi*, 7(4), 579–594. [https://jurnal.feb-umi.id/index.php/1028%0Ahttps://jurnal.feb-umi.id/index.php/1028/743](https://jurnal.feb-umi.id/index.php/PARADOKS/article/view/1028%0Ahttps://jurnal.feb-umi.id/index.php/PARADOKS/article/download/1028/743)
- Li, C., Wang, N., Zhang, H., Yan, Y., Chen, H., Jiang, R., Chang, Y., Zhao, P., Cheng, Q., Song, B., & Guo, S. (2024). Rural patients' satisfaction with humanistic nursing care in Chinese public tertiary hospitals: A national cross-sectional study. *Frontiers in Public Health*, 12(1455305). <https://doi.org/10.3389/fpubh.2024.1455305>
- Li, M., Lowrie, D. B., Huang, C., Lu, X., Zhu, Y., Wu, X., Shayiti, M., Tan, Q., Yang, H., Chen, S., Zhao, P., & He, S. (2015). Evaluating patients' perception of service quality at hospitals in nine

- Chinese cities by use of the ServQual scale. *Asian Pacific Journal of Tropical Biomedicine*, 5(6), 497–504. <https://doi.org/10.1016/j.apjtb.2015.02.003>
- Mahaida, S., Karen, T. A., Putri, D. R., & Tari, P. I. (2025). PENGARUH MUTU PELAYANAN TERHADAP LOYALITAS PASIEN RAWAT JALAN DI RUMAH SAKIT: SYSTEMATIC REVIEW. *Jurnal Inovasi Kesehatan Adaptif*, 7(4), 16–24.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2002). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. In *Retailing Critical Concepts* (hal. 70). https://books.google.co.id/books?hl=id&lr=&id=Rt96wAigg2oC&oi=fnd&pg=PA140&dq=Parasuraman+SERVQUAL+1988&ots=pUwZ6DDGvR&sig=fDTkNhNPxUFXPdwPbMEOdENTY5c&redir_esc=y#v=onepage&q=Parasuraman+SERVQUAL+1988&f=false
- Rahardjo, R. K., Sari, D. M. F. P., Darma, G. S., & Korry, P. D. P. (2025). Understanding patient satisfaction using SERVQUAL-Kano: The moderating role of patient trust and the mediating role of waiting time tolerance. *Petra International Journal of Business Studies*, 8(2), 144–156. <https://doi.org/10.9744/petraijbs.8.2.144-156>
- Rahmatia, S., Basri, M., Ismail, I., Adi, S., Nasrullah, N., & Ahmad, A. (2025). Service quality in hospital inpatient care: SERVQUAL model approach. *Health SA Gesondheid*, 30, 1–10. <https://doi.org/10.4102/hsag.v30i0.3055>
- RSUP Dr. Mohammad Hoesin Palembang. (2025a). *Laporan Indeks Kepuasan Masyarakat RSUP Dr. Mohammad Hoesin Palembang tahun 2025* [Laporan internal tidak dipublikasikan].
- RSUP Dr. Mohammad Hoesin Palembang. (2025b). *Laporan pelayanan pasien rawat inap berdasarkan jenis pembiayaan tahun 2025* [Laporan internal tidak dipublikasikan].
- RSUP Dr. Mohammad Hoesin Palembang. (2025c). *Laporan pendapatan rumah sakit berdasarkan unit pelayanan tahun 2025* [Laporan internal tidak dipublikasikan].
- Sumadi, A. F., & Pratama, Y. Y. (2024). Perbandingan Mutu Pelayanan Kesehatan Terhadap Kepuasan Pasien Rawat Inap: Sebuah Tinjauan Sistematis. *Jurnal Promotif dan Preventif*, 7(4), 676–684.
- Suryaningrat, A. A. S. I. M., & Indrayathi, P. A. (2022). Perbandingan Kepuasan Pasien Peserta Jkn Dan Non Jkn Terhadap Pelayanan Rawat Inap Di Rumah Sakit Umum Prima Medika Tahun 2020. *Archive of Community Health*, 9(1), 161. <https://doi.org/10.24843/ach.2022.v09.i01.p12>
- Tappy, Y. P., & Mandagi, D. (2024). DETERMINANTS OF PATIENT SATISFACTION WITH HEALTHCARE. *COSTING: Journal of Economic, Business and Accounting*, 7(6), 8151–8166.
- The Commonwealth Fund. (2023). *International Health Care System Profiles: Patient Experience and Quality Indicators*. Commonwealth Fund.
- Vanchapo, A. R., & Magfiroh. (2022). *Mutu Pelayanan Kesehatan dan Kepuasan Pasien* (1 ed.). Tata Mutiara Hidup Indonesia.
- World Health Organization. (2020). *Quality health services: A planning guide*. World Health Organization.
- Xu, C., Xu, X., He, H., Su, Y., & Ji, J. (2026). Patient satisfaction and its influencing factors: Results from a survey in inpatient department in a tertiary hospital setting in China. *BMC Health Services Research*, 26(436). <https://doi.org/10.1186/s12913-026-14238-2>