The Impact of Service Quality on Patient Loyalty Mediated by Patient Satisfaction: A Study at Beriman Hospital, Balikpapan City

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A B S T R A C T

Introduction: The quality of health services that exceeded expectations was one of the determinants that influenced patient satisfaction, creating patient loyalty. Objectives: This study investigated how health service quality influenced patient loyalty, with patient satisfaction serving as a mediator at Beriman Hospital in Balikpapan, Indonesia. Methods: The researchers used a quantitative, cross-sectional design to analyze data from 378 non-insurance outpatient respondents with SmartPLS software, examining direct and indirect relationships.

Results: Findings indicated that higher service quality directly increased patient satisfaction, boosting loyalty. Enhanced service quality was also directly linked to greater patient loyalty, reinforcing continuity of care. Furthermore, patient satisfaction significantly impacted loyalty, suggesting its critical role in fostering long-term patient commitment. The study recommends that hospital management maintain and enhance service quality to bolster patient satisfaction and loyalty. Suggested improvements include providing a comfortable waiting area, maintaining cleanliness, and expanding facilities like hospital parking. Additionally, speeding up patient queues via a dedicated app and demonstrating positive behaviour toward patients could further strengthen patient loyalty, encouraging them to return and recommend the hospital to others.

Keywords: Service quality, satisfaction, loyalty, patients, hospitals

INTRODUCTION

The rapid growth in the number of hospitals in Indonesia meant competition and community demands for quality, affordable health facilities also increased. According to statistical data from 2023, there were 3,155 hospitals in Indonesia, marking a 1.02% increase from the previous year's 3,072 hospital units. By type, 2,636 were general hospitals, and 519 were speciality hospitals. A hospital is a health service institution providing comprehensive individual health services, including inpatient, outpatient, and emergency care. Hospitals must continuously improve service quality, as outlined in Government regulation Article 189 paragraph (b), which

mandates that all hospitals provide safe, high-quality, anti-discriminatory health services that prioritize patient interests in line with hospital service standards (Law No. 17 of 2023 concerning Hospitals).

The provider's success depended on delivering services that met customer needs. Therefore, to understand the needs of customers or patients, providers assess patients' perceptions as a crucial element in evaluating service quality. As service providers, hospitals aim to identify patients' basic needs to achieve patient satisfaction (1). High-quality hospital services often foster emotional bonds with patients, leading to positive experiences and enhanced loyalty (2). When customers felt satisfied with service quality, they returned. Loyal customers continued choosing the same provider despite other options and, in some cases, were even willing to pay more for their preferred health services (3). Additionally, loyal patients promoted the health services they received, which helped hospitals increase revenue and profitability. Because customer loyalty was essential to organizational success, hospitals aimed to build satisfaction and trust through high-quality services (4).

(5) concluded that the costs of retaining loyal customers were much lower than those for acquiring new customers, particularly in established and competitive markets. A 5% increase in customer retention resulted in a 25% to 85% revenue increase, depending on the service sector provided (6). On average, companies lost half of their customers within five years and incurred 4–5 times the cost of acquiring new customers compared to retaining existing ones (1). Consequently, companies developed effective customer loyalty strategies for customer retention (7). Patient satisfaction has become an essential indicator in healthcare services and a significant concern for the Government and Indonesia. Hospitals were expected to ensure customer satisfaction by providing superior services and offerings (8). This requirement encouraged hospitals to maintain their market position amid competition. According to the Regulation of the Minister of Health of the Republic of Indonesia in 1916, the standard outpatient satisfaction rate was above 90%. If patient satisfaction fell below 90%, it did not meet the required standard (9).

Not achieving patient satisfaction is one of the things that the unfulfilled quality of service can influence. (10) concluded that patient satisfaction is closely related to the quality of hospital services and can be an input for hospital management to improve health services. Patient satisfaction is one of the indicators used to measure hospital facility standards because it can provide information about patient needs and expectations. Therefore, health service providers will propose appropriate strategies and interventions to address them (11). Based on the 2019-2023 Patient Satisfaction Survey data at Beriman Hospital, it is still lower at 83.40% of the standard ≥ 90%. In addition, the number of visits to the outpatient unit of RSUD Beriman has decreased by an average of 10.40% from 2019-2023. This is characterised by low patient satisfaction, so it is suspected that patient loyalty has also decreased. (12) stated that service quality has the most significant influence on patient loyalty. Hospital service quality is related to patient satisfaction, impacting patient loyalty. Patient loyalty describes the commitment of consumers to reuse services in the future and also recommend services they have experienced to others. Customers will move to other health facilities due to dissatisfaction with health services, which means that customers tend not to be loyal (5). Therefore, we conducted a study to determine the effect of health service quality on patient loyalty through patient satisfaction at Beriman Hospital in Balikpapan City, Kalimantan, Indonesia.

METHODS

Research design

This study was conducted at Beriman Hospital in Balikpapan from July to August 2024, using a quantitative method with an analytical observational design and a cross-sectional approach. Sampling in this study was performed on 378 non-insurance outpatient patients from 13,239 patients in the Outpatient Unit of Beriman Hospital in Balikpapan in 2024. The sampling technique used was proportional sampling from selected representatives of the outpatient unit types. The study focused on non-insurance outpatient patients and aimed

to understand better the various factors influencing patient loyalty following their visits to healthcare services, specifically through the lens of patient satisfaction. It was assumed that the quality of healthcare services could be improved according to the patient's needs and preferences. The instrument used for data collection was a questionnaire. The questionnaire used in this study was first tested for validity and reliability. Based on the research results, all statements were valid and reliable.

Data analysis

Univariate analysis was conducted to obtain an overview of the respondent's characteristics. Subsequently, the research variables were analyzed using cross-tabulation analysis between the characteristics of the respondents and the research variables. A bivariate analysis was conducted using the chi-square statistical test to determine the relationship between the independent and dependent variables. Meanwhile, multivariate analysis utilized path analysis to test the direct and indirect relationships through the load factors of the two variables in a path diagram.

RESULTS

Respondent characteristics

Based on the research results, the characteristics of respondents are presented in Table 1 below to illustrate the variation in respondents' age, gender, place of residence, distance from residence to the hospital, occupation, education, and monthly income.

Table 1. The distribution of respondent assessments on outpatients at Beriman Hospital, Balikpapan City, in 2024.

No	Respondent characteristics		Total	Percentage (%)	Grand Total
1	Age	13-19	33	8,7	378
		20-44	187	49,5	
		45-64	129	34,1	
		>65	29	7,7	
2	Gender	Male	139	36,8	378
		Female	239	63,2	
3	Place of Residence	Balikpapan	291	77,0	378
		Outside Balikpapan	87	23,0	
4	Distance from Hospital to Residence	0-1 km	71	18,8	378
		1-2 km	94	24,9	
		2-3 km	150	39,7	
		3-4 km	48	12,7	
		4-5 km	15	4,0	

No	Respondent characteristics		Total	Percentage (%)	Grand Total
5	Occupation	Unemployed	45	11,9	378
		Private Employee	130	34,4	
		Student	98	25,9	
		Civil Servant/Army/Police	69	18,3	
		Others	36	9,5	
6	Education	Elementary School	6	1,6	378
		Middle School	15	4,0	
		High School	60	15,9	
		Diploma	132	34,9	
		Bachelor's Degree/Profession	105	27,8	
		Master's Degree	46	12,2	
		No Formal Education	14	3,7	
7	Income	< Rp 2.5 Million/Month	55	14,6	378
		> Rp 2.5 – 5 Million/Month	134	35,4	
		> Rp 5-10 Million/Month	102	27,0	
		> Rp 10 Million/Month	87	23,0	

Table 1 shows the characteristics of respondents based on age, with the largest group being young adults aged 20-44, comprising 187 people (49.5%). The largest group of respondents based on gender were women, totaling 239 respondents (63.2%). Based on place of residence, the largest group included 291 respondents (77.0%) residing in Balikpapan. Regarding the distance from home to the hospital, the largest group consisted of 150 people (39.7%) who lived 2-3 KM from the hospital. The largest group of respondents based on occupation were private employees, totaling 130 people (34.4%). Regarding education, the largest group had a diploma level, with 132 respondents (34.9%). Based on income, the largest group of respondents had an income between Rp 2.5–5 million per month, totaling 134 people (35.4%).

Table 2. Frequency Distribution of Each Research Variable Category for Outpatient Patients at Beriman Regional Hospital, Balikpapan City

Variabel	Penelitian				Total	p-Value
	n	%	n	%		
Service	Customer Satisfaction					

Variabel	Penelitian				Total	p-Value
	n	%	n	%		
Quality	Satisfied		Not Satisfied			
High	76	44,4	95	55,6	378	0,009
Low	79	38,2	128	61,8		
Service Quality	Customer Loyalty					
	Loyaled		Not Loyaled			
High	62	36,3	109	63,7	378	0,009
Low	101	48,8	106	51,2		
Customer Satisfcation	Customer Loyalty					
	Loyaled		Not Loyaled			
Satisfied	55	35,5	100	64,5		
Not Satisfied	108	48,4	115	51,6	378	0,008

Table 2 shows the results of a bivariate analysis of 378 outpatient respondents. Those with low service quality were more dissatisfied with customer satisfaction, namely 128 respondents (61.80%), compared to outpatients with low service quality who were satisfied, namely 79 respondents (38.2%). The chi-square test results yielded a p-value of 0.009 for the relationship between service quality and customer satisfaction, indicating a value less than 0.05. Therefore, it was concluded that there was a relationship between service quality and customer satisfaction.

Outpatients with low service quality who were not loyal totaled 106 respondents (51.2%) compared to those with low service quality who were loyal, totaling 101 respondents (48.8%). The chi-square test results yielded a p-value of 0.009 for the relationship between service quality and customer loyalty, indicating a value less than 0.05. Thus, it was concluded that there was a relationship between service quality and customer loyalty.

Dissatisfied and disloyal outpatients numbered 115 respondents (51.6%), while dissatisfied but loyal outpatients numbered 108 respondents (48.4%). The chi-square test results yielded a p-value of 0.008 for the relationship between customer satisfaction and customer loyalty, indicating a value less than 0.05. Therefore, it was concluded that there was a relationship between customer satisfaction and customer loyalty.

Multivariate Analysis

Based on the conceptual framework proposed in this study, hypothesis testing was conducted using path analysis within the structural equation modeling. Path analysis was chosen because the study aimed to determine the direct and indirect effects of the independent variables on the dependent variable through intervening variables. Overall, the results of the path analysis are as follows:

Table 3. Path Analysis between Service Quality, Satisfaction, and Loyalty in Outpatients at Beriman Hospital, Balikpapan City in 2024.

Effect Between Variables	Path Coefficient	p-value	C.R.	Conclusion
$X_1 \longrightarrow X_2$	0,533	0,000	6.674	Positive and Significant

Effect Between Variables	Path Coefficient	p-value	C.R.	Conclusion
$X_1 \longrightarrow X_3$	0,225	0,031	2.157	Positive and Significant
$X_2 \longrightarrow X_3$	0,491	0,000	4.074	Positive and Significant
$X_1 \longrightarrow X_2 \longrightarrow X_3$	0,562	0,000	6.924	Positive and Significant
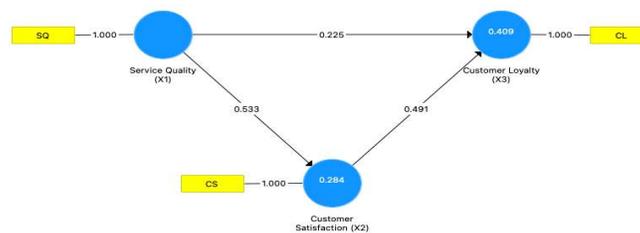
Figure 1. Path Analysis Model for the Influence of Service Quality on Customer Loyalty, Mediated by Customer Satisfaction

DISCUSSION

Based on the research findings, it was found that there was an influence of service quality (X1) on customer satisfaction (X2), where the statistical test results showed a p-value (0.000) < 0.05, meaning that the p-value was smaller than the significance level of 0.05. Therefore, it was concluded that healthcare service quality influenced customer satisfaction. This result indicated that patients who rated the quality of service as low also experienced low satisfaction. This finding proved that providing high-quality healthcare services was one way to satisfy customers.

Patient satisfaction reflected the quality of healthcare services (13). The quality of healthcare services refers to the continuum level of satisfaction for each patient. The study by (14) supported this, showing a significant relationship between service quality and patient satisfaction in the inpatient ward of Dr. Tajuddin Chalid Hospital, Makassar. Generally, inpatient patients were satisfied with the services provided. Similarly, (15) found that service quality positively and significantly affected patient satisfaction, with an average satisfaction rate of 65.7% in four public hospitals in Jordan.

This research aligned with several relevant studies, such as the study by (16) on the impact of service quality on inpatient satisfaction at Bhayangkara Hospital. That study found that tangible evidence, reliability, responsiveness, assurance, and empathy significantly affected patient satisfaction. Furthermore, (17) study on the influence of service quality on consumer satisfaction at Bahagia Hospital, Makassar, also showed a significant impact. In addition, (18) found that patients' perceptions of service quality strongly influence their satisfaction. Patients who perceived that they received high quality services tended to be more satisfied. (19) also stated that quality health care increases patient satisfaction, positively affects patients' quality of life, meets

medical needs, and ensures continuity of health care services. Good service quality was critical in creating a positive relationship between healthcare providers and patients.

The research findings showed an influence of service quality (X1) on patient loyalty (X3), with a p-value (0.031) < 0.05, indicating that the p-value was smaller than the significance level of 0.05. Therefore, it was concluded that service quality affected outpatient loyalty at Beriman Regional Hospital, Balikpapan City, thus confirming that research hypothesis 2 (H2) was accepted. This result indicated that outpatients who rated service quality as low also tended to have lower loyalty. Service quality proved multidimensional and relevant in constructing patient satisfaction, suggesting that achieving satisfaction could build trust and increase loyalty.

(20) stated that loyalty was a customer condition that showed a positive attitude toward a brand, a commitment to the brand, and an intention to make repeat purchases. One way to increase customer loyalty was by providing good service and encouraging customers to return. (21) also supported this, finding that service quality positively and significantly affected customer loyalty. (2) stated that good service could sustain customer loyalty to the company. The better the service provided, the better the impact on customer loyalty.

As was known, loyalty was based on emotional and rational factors that influenced customers' emotions to make repeat purchases and even praise the service as a manifestation of emotional attachment (22). Based on the definitions above, it was concluded that the most critical factor in loyalty was trust. Trust influenced objective behavior and immediate actions that led to repeat purchases. Therefore, customer loyalty was assumed to be influenced by commitment, trust, and high repeat purchases. This study aligned with research by (23), which stated that service quality influenced patient loyalty, with patients consistently returning to Malang Hospital.

Similarly, (24) found that service quality influenced loyalty, and (25) stated that service quality positively affected consumer loyalty. (26) also found a directional relationship between service quality and loyalty, showing that service quality perception, engagement, and satisfaction were good predictors of passenger loyalty. Similarly, Cheng and Rashid (2013) found that service quality positively correlated with customer loyalty.

The study results indicated an influence of customer satisfaction (X2) on customer loyalty (X3), with a p-value (0.000) < 0.05, showing that the p-value was smaller than the significance level of 0.05. Therefore, it was concluded that customer satisfaction had customer satisfaction affected customer loyalty among outpatients at Beriman Regional Hospital, Balikpapan City. Thus, it was stated that research hypothesis 3 (H3) was accepted.

Satisfaction measures customers' happiness when receiving services or products from a company or hospital. This statement allowed the company to identify which services could be improved. Patients were more likely to return to the hospital with high patient satisfaction. Furthermore, if patients were satisfied with the hospital's services, this would increase their intention to become loyal patients. This result showed that patients had low satisfaction and loyalty assessments, which meant that if the company could meet customer expectations, they would feel satisfied, which fostered loyalty toward its products or services. The better the patient satisfaction, the stronger the influence on customer loyalty.

Research by (27) showed that patient satisfaction significantly affected outpatient loyalty at the neurosurgery clinic of Dr. Doris Sylvanus Hospital, Palangkaraya, meaning that the better satisfaction provided by the neurosurgery clinic, the higher patient loyalty to hospital services. This finding was also supported by studies by (8), who found that satisfaction positively and significantly affected customer loyalty. This research was consistent with the study by (28), which found that patient satisfaction had a positive and significant effect on outpatient loyalty at a Special Hospital in South Sulawesi Province. In other words, the better the satisfaction provided by the hospital, the greater the patient loyalty. (29) conducted a similar study at Kesdam Cijantung Hospital. She found that satisfaction positively influenced patient loyalty, with a positive effect of 0.21 and a T-statistic of 6.28, which exceeded the critical value of 1.96 at a 5% significance level. This value meant that

satisfaction directly influenced patient loyalty.

Research findings indicated that there was an indirect influence of service quality (X1) on customer loyalty (X3) through customer satisfaction (X2), with a statistical test result showing a p-value (0.000) < 0.05. This value meant the p-value was smaller than the significance level of 0.05, leading to the conclusion that there was an indirect effect of service quality on customer loyalty through customer satisfaction among outpatients at Beriman Regional Hospital, Balikpapan City. Therefore, research hypothesis 4 (H4) was accepted.

When patients were satisfied with high-quality healthcare services, they were more likely to return to the hospital in the future. This situation fostered a positive perception of the service and encouraged others to visit the hospital when they needed healthcare services. Customers with high expectations for the hospital's performance shared their feelings with others (word-of-mouth influence), creating loyalty. This research aligned with (28) study, which found that service quality indirectly positively and significantly affected patient loyalty through patient satisfaction in the inpatient unit, suggesting that service quality was a source of patient loyalty as long as patient satisfaction was met. Good service quality increases patient satisfaction, leading to higher loyalty.

(27) concluded that the indirect effect of healthcare service quality was more significant than the direct effect (0.300 > 0.165). This finding also showed that service quality indirectly influenced patient loyalty through patient satisfaction. Research by (30) and (31) supported this finding, stating that service quality positively and significantly affected customer loyalty through customer satisfaction.

The relationship between service quality, patient satisfaction, and patient loyalty was such that satisfaction and loyalty depended on the level of service quality provided to patients. There was a positive relationship between service quality and patient loyalty, meaning optimal healthcare services fostered patient loyalty. However, after experiencing hospital services, patients could not immediately commit to loyalty. Patients would feel satisfied or dissatisfied after receiving healthcare services, and this perception would impact their loyalty (28).

CONCLUSION

This study shows that better service quality directly increases patient satisfaction in the Outpatient Unit at Beriman Hospital, Balikpapan City. Improved service quality also directly boosts patient loyalty, meaning satisfied patients are more likely to return. Additionally, patient satisfaction directly strengthens patient loyalty, and service quality indirectly influences loyalty through its impact on satisfaction.

The hospital should focus on maintaining and improving healthcare services to enhance patient loyalty. Specific actions include making the outpatient waiting area more comfortable, ensuring cleanliness, and expanding parking facilities. Focusing on a customer-centered approach—such as responsive communication, high-quality service, regular satisfaction surveys, and effective complaint handling—can improve patient experiences. Streamlining the outpatient queue can also create a positive first impression, encouraging patients to come back in the future and recommend the hospital to others.

This study has limitations, as it only includes non-insurance patients, who may not represent all patient perspectives. Future research should consider insurance patients and use qualitative methods to gain a deeper understanding of service quality, satisfaction, and loyalty.

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