

The Effect of Service Quality and Patient Satisfaction Toward Patient Loyalty in Special Regional Hospitals of South Sulawesi

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ABSTRACT

The improvement and guarantee of hospital Service Quality in Indonesia should always be in the best interest of any hospital as regulated in Article 40 of Hospital Law No. 44 of 2009. Adequate Service Quality in a hospital would result in emotional bonds and positive experiences felt by patients and family, eventually strengthening loyalty in the long run. Thus, Service Quality is a critical aspect and indicator to achieve patient satisfaction hence behavioral intention to build loyalty towards the hospital and future visits. The aim of this study is to identify the effect of Service Quality and patient satisfaction in relation to patient loyalty in Special Regional Hospitals of South Sulawesi. This is a quantitative study with a cross-sectional model. The sample in this study were all patients who had been registered in the database, namely patients who had visited the outpatient service at Dadi Special Regional Hospital (RSKD), Siti Fatimah Regional Special Hospital for Mother and Child (RSKDIA), and Pertiwi Special Regional Hospital for Mother and Child (RSKDIA) in 2017-2019 with a total sample of 269 from the outpatient care, respectively. The inclusion criteria in this study are as follows: (1) Patients from the outpatient care. (2) Patients who had received hospital services twice. (3) Not suffering from any mental illness and sensory disturbances. (4) Patients who are willing to be respondents and consented to fill out research questionnaires. (5) The patient is conscious and is able to communicate. The results that were obtained show that Service Quality holds a significant effect on patient satisfaction. Service Quality has no significant effect on patient loyalty, while patient satisfaction has a significant effect on patient loyalty. The output of this study should be taken into consideration for hospitals to commit to improving the Service Quality in order to achieve patient satisfaction. Increased patient satisfaction in turn will develop loyalty, thereby accommodating the implementation of the hospital strategy and achieving hospital goals.

Key words: Service Quality, Patient Satisfaction, Patient Loyalty, Regional Special Hospital.

INTRODUCTION

The improvement and guarantee of hospital Service Quality in Indonesia should always be in the best interest of any hospital as regulated in Article 40 of Hospital Law No. 44 of 2009. The approach to patient care and quality of medical services can be analyzed from several perspectives, which are the perspective of the service provider, service financier, service owner, and the patient itself.¹ Out of the four perspectives, it can be highlighted that the patient's perspective towards the service provider carries an important role; due to its relation to the patient's personal opinion and demand. Patients' perspectives are implicated in continuous betterment and systemic reconstruction to improve the quality of care. High-quality medical services can initiate emotional bonds within patients towards the standardized care, creating positive experiences that will result in increased loyalty in the long run.² Therefore, Service Quality is a critical aspect and indicator to achieve patient satisfaction hence behavioral intention to build loyalty towards the hospital and future visits.³

South Sulawesi occupies the position as the third province with the most accredited hospitals after Jakarta and East Java. It is also the province with the most hospitals in eastern of Indonesia; consisting of 75 general hospitals and 31 special hospitals (Badan Pusat Statistik, 2018). Out of 31 special hospitals, there are at least four that are

run by the provincial government, which are Dadi Special Regional Hospital (RSKD), Siti Fatimah Regional Special Hospital for Mother and Child (RSKDIA), and Pertiwi Special Regional Hospital for Mother and Child (RSKDIA), and South Sulawesi Provincial Dental Hospital. These four hospitals were given the utmost priority program by the South Sulawesi government as written in the 2018-2023 Regional Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah) through specialization development program and quality of medical services.

According to data from South Sulawesi Special Regional Hospitals, the mean value of patient satisfaction in the outpatient care in 2017-2019 is 79.45%. This is in accordance with the patient satisfaction standard regulated by the Minister of Health Decree (Keputusan Menteri Kesehatan) No. 129 of 2008 about Hospital Minimum Service Standards; which requires patient satisfaction at the inpatient care within $\geq 90\%$.⁴

Under such reasoning, it can be concluded that there is a need for hospitals, especially Special Regional Hospitals in South Sulawesi to improve their service quality so that great patient satisfaction rates are obtained in accordance with the 2008 Minister of Health Decree concerning the framework of health services. This is considered important, especially in the era of the National Health Insurance (Jaminan Kesehatan Nasional) where government and private

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hospitals stand in the same lane as health providers, which means that both have the same market segment.

In response to such issues, a change of perspective is needed in regards to providing health services; at first, it was regarded that the patient who acts as a "customer" that needs the hospital, however, it should be reversed that the patient, in fact, does not depend on the hospital, it was the hospital who needs loyal patients. Therefore, the mindset should be that patients have the most critical role and their satisfaction should be the utmost priority.⁵ This strategy is deemed necessary in order to create an ideal hospital industry, especially in special regional hospitals in South Sulawesi.

MATERIALS AND METHODS

Research location and design

This study was conducted at Dadi Special Regional Hospital (RSKD), Siti Fatimah Regional Special Hospital for Mother and Child (RSKDIA), and Pertiwi Special Regional Hospital for Mother and Child (RSKDIA). This study is a qualified quantitative study with an analytical observational design and cross-sectional model.

Research sample

The sample in this study were all patients who had been registered in the database, namely patients who had visited the outpatient service at Dadi Special Regional Hospital (RSKD), Siti Fatimah Regional Special Hospital for Mother and Child (RSKDIA), and Pertiwi Special Regional Hospital for Mother and Child (RSKDIA) in 2017-2019; obtained through consecutive sampling; with a total sample of 269 from the outpatient care, respectively. The inclusion criteria are as follows: (1) Patients from the outpatient care. (2) Patients who received hospital services twice. (3) Not suffering from any mental illness and sensory disturbances. (4) Patients who are willing to be respondents and consented to fill out research questionnaires. (5) The patient is conscious and is able to communicate.

Method of collecting data

The instrument used in data collection is a questionnaire that has been tested for validity and reliability, the independent variable is service quality and patient satisfaction, while the dependent variable is patient loyalty.

Data analysis

Univariate analysis was conducted to obtain an overview of the research problem by describing each variable used in the study and the characteristics of the respondents. Univariate analysis consisted of descriptive analysis of research variables and cross-tabulation analysis between dependent and independent variables. Bivariate analysis of the Chi-square test was performed to examine the correlation between service quality, patient satisfaction and patient loyalty. To test the hypothesis, multivariate analysis was carried out with the PLS-SEM test using the SmartPLS 4.0 trial versi.

RESULTS

Univariate analysis

Presented in Table 1 are the characteristics of patients, out of 269 respondents who have visited the outpatient care at special hospitals in South Sulawesi. The respondents were all female and the average age of 26-35 years. The majority of respondents are married and is housewives. Most patients are Muslim and have a monthly household income of IDR 2.500.000 - IDR 5.000.000. As many as 90% of the sample utilize BPJS Kesehatan, which stands for 'Badan Penyelenggara Jaminan Sosial Kesehatan' or Social Health Insurance Administration Body as

the payment method. Most of the patients were high school graduates who did not pursue further education degrees. Most respondents had a total of <5 visits.

Presented in Table 2 are the frequency of variables, including service quality, patient satisfaction, and patient loyalty. It is found that in the outpatient care at Dadi, Siti Fatimah, and Pertiwi hospitals the respondents exhibited a good perception of the Service Quality while undergoing treatment at the hospital, most of the respondents were satisfied, and stated they were loyal to the services provided at the hospital.

Bivariate analysis

In this analysis, the authors aimed to determine if there was a relationship between the Service Quality and patient loyalty in the outpatient care of the South Sulawesi Provincial Hospital. We utilized the chi-square test which resulted in the following table 3.

Table 3 summarizes the relationship between service quality and patient satisfaction. The results show that the *p* value (Sig.) is 0.000 which indicates that it is smaller than 0.05 at Dadi Hospital, the *p* value (Sig.) is 0.001 which indicates it is smaller than 0.05 at Siti Fatimah Hospital, the *p* value (Sig.) of 0.017 which indicates it is smaller than 0.05 at the Pertiwi Hospital. Therefore, the service quality variable has a significant relationship to patient satisfaction in the South Sulawesi Provincial Hospital.

Table 4 summarizes the relationship between service quality and patient loyalty. The results display that the *p* value (Sig.) is 0.000 which means it is smaller than 0.05 at Dadi Hospital, the *p* value (Sig.) is 0.000 which means it is smaller than 0.05 at Siti Fatimah Hospital, the *p* value (Sig.) of 0.064 which means it is greater than 0.05 at the Pertiwi Hospital. Therefore, service quality has a significant relationship with patient loyalty at Dadi Hospital and Fatimah Hospital, while there is no significant relationship between service quality and patient loyalty at Pertiwi Hospital. Clinically, based on the statistical analysis 87.5% (28 respondents) experienced good service quality in relation to a good level of loyalty to the hospital, compared to poor service quality, with 62.5% (10 respondents).

Table 5 summarizes the relationship between service quality and patient satisfaction. The output shows that the *p* value (Sig.) is 0.000 which suggests that it is smaller than 0.05 at Dadi Hospital, the *p* value (Sig.) is 0.001 which suggests that it is less than 0.05 at Siti Fatimah Hospital, the *p* value (Sig.) of 0.017 which means it is smaller than 0.05 at the Pertiwi Hospital. Therefore, patient satisfaction has a significant relationship to patient loyalty in the South Sulawesi Provincial Hospital.

Multivariate analysis

Based on the test results of the Inner Model (structural model) which includes the output of r-square, parameter coefficients and t-statistics. To see whether a hypothesis can be accepted or rejected, among others, by paying attention to the significance value between constructs, t-statistics, and p-values. This hypothesis testing was carried out with the help of SmartPLS (Partial Least Square) software. These values can be seen from the bootstrapping results. The rule of thumb used in this study is t-statistics > 1.96 with a significance level of p-value 0.05(5%). The value of testing the hypothesis of this study can be shown in Table 13 and the results of this research model can be depicted in Figure 1.

R-Square

The structural model with PLS can assess R-square as predictor power in a structural model. Values 0.75; 0.50; and 0.25 can be concluded that the model is strong, moderate, and weak. The R-Square results represent the number of variances of the constructs that can be explained by the model. The R-Square is shown in Table 5.

Table 1: Characteristics of respondents.

Characteristics	Dadi Hospital		Siti Fatimah Hospital		Pertiwi Hospital	
	n	%	n	%	n	%
Gender						
Male	47	32.0	22	29.73	7	14.58
Female	100	68.0	52	70.27	41	85.42
Age						
< 25 years old	10	6.8	6	8.1	5	10.4
26-35 years old	57	38.8	22	29.7	26	54.2
36-45 years old	44	29.9	27	36.5	8	16.7
46-55 years old	30	20.4	15	20.3	9	18.8
>55 years old	6	4.1	4	5.4	0	0.0
Marriage Status						
Married	119	81.0	68	91.9	45	93.8
Not married	24	16.3	2	2.7	1	2.1
Divorcee	4	2.7	4	5.4	2	4.2
Religion						
Islam	127	86.4	69	93.2	45	93.8
Christian	9	6.1	4	5.4	2	4.2
Catholic	7	4.8	1	1.4	1	2.1
Hinduism	1	0.7	0	0.0	0	0.0
Buddhism	3	2.0	0	0.0	0	0.0
Level of Education						
Did not finish elementary school	4	2.7	1	1.4	0	0
Graduated from elementary school	8	5.4	1	1.4	0	0
Graduated from junior high school	56	38.1	12	16.2	7	15
Graduated from senior high school	62	42.2	45	60.8	30	63
Associate degree (D3)	8	5.4	10	13.5	6	13
Bachelor degree (S1)	7	4.8	5	6.8	5	10
Postgraduate	2	1.4	0	0.0	0	0
Occupation						
Civil servants	12	8.2	2	2.7	2	4.2
Private employees	47	32.0	17	23.0	9	18.8
Self-employed	31	21.1	10	13.5	8	16.7
Unemployed/Housewife	48	32.7	38	51.4	23	47.9
Others	9	6.1	7	9.5	6	12.5
Income						
<IDR1.000.000	30	20.4	20	27.0	11	22.9
IDR 1.000.000 – IDR 2.500.000	39	26.5	26	35.1	12	25.0
IDR 2.500.000 – IDR 5.000.000	74	50.3	27	36.5	25	52.1
> IDR 5.000.000	4	2.7	1	1.4	0	0.00
Payment						
General Payment	15	10.2	8	10.8	3	6.3
BPJS	132	89.8	66	89.2	45	93.8
History of Hospital Visits						
< 5 times	140	95.2	65	87.8	42	88
> 5 times	7	4.8	9	12.2	6	13

Source: Primary data processed, 2022

In Table 5, R-Square of patient satisfaction is equal to < 0.50 so that R-Square in this study is categorized as weak. It can be seen that the R-Square value for patient satisfaction is 0.186. This shows that the percentage of patient satisfaction can be explained by the service quality value of 18,6%, while the remaining 81,4% is explained by other variables that are not analyzed in this study. , R-Square of patient loyalty satisfaction is equal to 0.50 so that R-Square in this study is categorized as moderate. It can be seen that the R-square value for patient loyalty is 0.511, which means that attitudinal loyalty can be influenced by service quality and patient satisfaction by 51,1%. while the remaining 48,9% is explained by other variables that are not analyzed in this study.

Direct and indirect effects

The prepared hypothesis is tested by analyzing the direct and indirect (mediation) effects which are elaborated in the table 6.

DISCUSSION

The effect of service quality on patient satisfaction at the outpatient care in South Sulawesi special regional hospital

According to the statistical analysis, it is found that service quality has a direct effect on patient satisfaction at the outpatient care at the South

Table 2: Frequency of variables outpatient.

Hospital	Service Quality				Total	
	Well		Not Good		n	%
	n	%	n	%		
Dadi Hospital	112	76,2	49	23,8	147	100.0
Siti Fatimah Hospital	49	66,2	25	33,8	70	100.0
Pertiwi Hospital	32	66,7	16	33,3	48	100.0
Hospital	Patient Satisfaction				Total	
	Satisfied		Less satisfied		n	%
	n	%	n	%		
Dadi Hospital	120	81,6	27	18,4	147	100.0
Siti Fatimah Hospital	56	75,7	18	24,3	74	100.0
Pertiwi Hospital	33	68,8	15	31,3	48	100.0
Hospital	Patient Loyalty				Total	
	Loyal		Not Loyal		n	%
	n	%	n	%		
Dadi Hospital	120	81,6	59	18,4	147	100.0
Siti Fatimah Hospital	59	79,7	15	20,3	74	100.0
Pertiwi Hospital	38	50,8	10	20,8	48	100.0

Source: Primary data processed, 2022

Table 3: The relationship between service quality and patient satisfaction.

Hospital	Service Quality	Patient Satisfaction				Total	P-value
		Satisfied		Less satisfied			
		n	%	n	%		
Dadi Hospital	Well	22	68,8	10	31,3	32	100
	Not Good	8	57,1	6	42,9	14	
	Total	30	65,2	16	34,8	46	
Siti Fatimah Hospital	Well	109	92,4	9	7,6	118	100
	Not Good	14	43,8	18	56,3	32	
	Total	123	82,0	27	18,0	150	
Pertiwi Hospital	Well	44	78,6	12	21,4	56	100
	Not Good	22	68,8	10	31,3	32	
	Total	8	57,1	6	42,9	14	

Source: Primary data processed, 2022

Table 4: The relationship between service quality and patient loyalty.

Hospital	Service Quality	Patient Loyalty				Total	P-value
		Loyal		Not Loyal			
		n	%	n	%		
Dadi Hospital	Well	99	88,4	13	11,6	112	100
	Not Good	21	60,0	14	40,0	35	
	Total	120	81,6	27	18,4	147	
Siti Fatimah Hospital	Well	46	93,9	3	6,1	49	100
	Not Good	13	52,0	12	48,0	25	
	Total	59	79,7	15	20,3	74	
Pertiwi Hospital	Well	28	87,5	4	12,5	32	100
	Not Good	10	62,5	6	37,5	16	
	Total	38	79,2	10	20,8	48	

Source: Primary data processed, 2022

Table 5: The relationship between patient satisfaction and patient loyalty.

Hospital	Patient Satisfaction	Patient Loyalty				Total		P-value
		Loyal		Not Loyal		N	%	
		n	%	n	%			
RSKD Dadi	Satisfied	115	96,8	5	4,2	120	100	0,000
	Less Satisfied	5	18,5	22	81,5	27	100	
	Total	120	81,6	27	18,4	46	100,0	
RSKDIA Siti Fatimah	Satisfied	56	100,0	0	0,0	56	100	0,001
	Less Satisfied	3	16,7	15	83,3	18	100	
	Total	59	79,7	15	20,3	74	100,0	
RSKDIA Pertiwi	Satisfied	31	93,9	2	6,1	33	100	0,000
	Less Satisfied	7	46,7	8	53,3	15	100	
	Total	38	79,2	10	20,8	48	100,0	

Source: Primary data processed, 2022

Table 6: R square of latent variabels outpatient.

Variable	R Square
Patient Satisfaction	0.186
Patient Loyalty	0.511

Source: Primary data processed, 2022

Table 7: Result of direct effect.

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Description
Patient Satisfaction-> Patient Loyalty	0.707	0.707	0.055	12.897	0.000	Accepted
Service Quality ->Patient Satisfaction	0.431	0.431	0.062	6.949	0.000	Accepted
Service Quality->Patient Loyalty	0.018	0.028	0.061	0.323	0.747	Not Accepted

Source: Primary data processed, 2022

Table 8: Results of indirect effect.

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Description
Service Quality > Patient Satisfaction-> Patient Loyalty	0,304	0.305	0.052	5,875	0.000	Accepted

Source: Primary data processed, 2022

Sulawesi Provincial Hospitals. A significant direct effect is also indicated by a significance value of 0.000, thus the research hypothesis 1 (H1) is accepted. The results of this study are in line with studies by Amin & Nasharuddin (2013), Mongkaren (2013), and Nofirza & Indrayani (2011) which stated that the Service Quality at a hospital affects patient satisfaction.⁷⁻⁹ People who are increasingly aware of health, especially in urban areas, demand that hospitals pay more attention to the quality of their services. In terms of increasing patient satisfaction through service quality, a detailed management team must pay attention to elaborated care and facilities, such as providing comfortable waiting rooms, punctual and comprehensive examinations by doctors, polite and helpful staffs and healthcare workers, adequate assistance, and hospitability in providing services. The higher the level of service quality, the higher the level of patient satisfaction.

The effect of patient satisfaction on patient loyalty at the outpatient care in South Sulawesi special regional hospital

According to the statistical analysis, it is found that patient satisfaction has a direct effect on patient loyalty in outpatient care at the South

Sulawesi Special Regional Hospital. A significant direct effect is also indicated by a significance value of 0.000, thus the research hypothesis 2 (H2) is accepted. Oliver (1999) stated that customer satisfaction arises because of psychological conditions caused by emotional expectation factors compared to previous customer experiences.¹⁰ Lien, *et al.*, (2014) proved that trust in health services is a determinant factor in patient satisfaction.¹¹ Loyalty as a deeply held commitment to a product or service consistently leads to repeated brand purchases.¹² If the patients are satisfied with hospital services, an appraisal will be internalized by the patients that the hospital was able to provide maximum service to the community.¹²⁻¹⁵ If the patient is satisfied with the hospital's services, it will increase the confidence and belief that the hospital will continue to provide optimal service to patients so that they remain loyal to choose the hospital's services in the future.

The influence of service quality on patient loyalty at the outpatient care in South Sulawesi special regional hospital

According to the statistical analysis, it is found that the Service Quality has no effect and is not significant on the loyalty of outpatient care

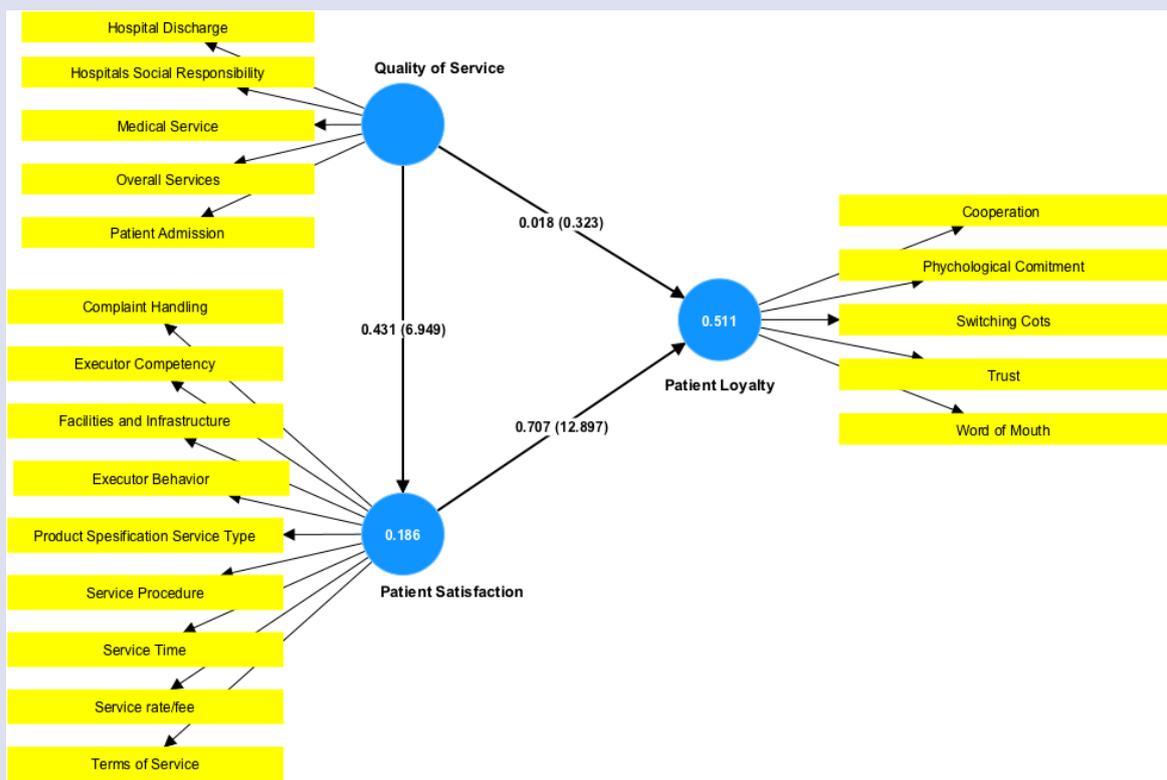


Figure 1: Research model results

patients at the South Sulawesi special regional hospitals according to the statistical analysis. The lack of significance is also indicated by a value of 0.747, thus the research hypothesis 3 (H3) is rejected. Therefore, the dimensions that directly represent the Service Quality construct are not able to increase patient loyalty. This finding is different from previous studies which confirmed the significant effect of service quality on patient loyalty as found in Beom and Hyun (2013) who researched into the relationship of quality of outcomes, quality of interactions, and quality of peer-to-peer on customer satisfaction of hospital service users.¹⁶ However, Winata, *et al* (2022) found that service quality does not affect patient loyalty. This inconsistency can be explained by the unique characteristics of patients in specialized hospitals.¹⁷ Based on the findings, we found that patients usually visit the hospital four to five times a year with a minimum of one visit a year. These data indicate that patient loyalty will not be shown dominantly by the frequency of visits or repurchase intention but rather by a higher level of *word-of-mouth* and how patients recommend the hospital to other patients.

The indirect effect of service quality on patient loyalty through patient satisfaction at the outpatient care in South Sulawesi Special regional hospital

According to the statistical analysis, it is found that Service Quality has an indirect effect on patient loyalty through patient satisfaction at outpatient care at the South Sulawesi regional hospitals. A significant indirect effect is also indicated by a value of 0.000, thus the research hypothesis 4 (H4) is accepted. Numerous studies have explored the effect of customer satisfaction on the relationship between Service Quality and customer loyalty. Boonlertvanich found that Service Quality affects customer loyalty directly and indirectly through satisfaction.¹⁸ Yadav and Rai also supported these findings.¹⁹ In the context of health services in hospitals, Aliman and Mohamad, Shabbir *et al.*, and Fatima *et al.* found that patient satisfaction mediates the relationship between the quality of health services and patient loyalty.²⁰⁻²² Patient satisfaction

with the high quality of healthcare services enables patients to support the hospital for services that are equal and different from others, share positive experiences about the hospital, and prefer the same hospital for future treatment.²³⁻²⁷ These findings show the relevance of improving service quality and maximizing patient satisfaction to attract patients to use the quality of health services of a particular hospital in the future and recommend it to others.

CONCLUSION

Based on research on the Effect of Service Quality and Patient Satisfaction on Patient Loyalty in the Outpatient Care of Special Regional Hospitals in South Sulawesi, we conclude that there is a direct effect of service quality on satisfaction, in other words, the higher the Service Quality, the higher patient satisfaction will increase. There is no direct effect of service quality on patient loyalty, which means that the Service Quality provided in hospitals is not able to foster patient loyalty. In addition, there is a direct effect of patient satisfaction on patient loyalty, where the better the satisfaction is given by the hospital to patients, the more patient loyalty will increase to hospital health services. We found that there is an indirect effect of service quality on patient loyalty through patient satisfaction, this means that service quality becomes a source of loyalty for patients if the patient's satisfaction needs are met. Good service quality will increase patient satisfaction and increased patient satisfaction will lead to loyalty. From the results of this research, we hope that the management of the Special Regional Hospitals of South Sulawesi is committed to maintaining and improving the Service Quality without neglecting the dimensions that must be reconstructed and aspects that need to be improved. This article is written in the hopes that great Service Quality will lead patients to recommend the same hospital care to others or provide positive information about services at the hospital, thereby accommodating the implementation of the hospital strategy and achieving hospital goals.

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