

Analysis of the Effect of Service Quality and Patient Satisfaction on Patient Compliance Level in the Medical Rehabilitation Polyclinic of UMM Hospital

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ABSTRACT

Patient satisfaction is one of the first indicators of hospital standards and measures of service quality. Low patient satisfaction will affect hospital visits, patient satisfaction is determined by the quality of service provided to patients where patient demands and service quality will increase over time and have an impact on the level of patient compliance. The purpose of this study is to analyze the effect of service quality and patient satisfaction on patient compliance at the Medical Rehabilitation Polyclinic of UMM General Hospital. In this study, researchers used an analytical quantitative design with a cross-sectional approach. The population in this study were outpatients at the Medical Rehabilitation Polyclinic of UMM General Hospital in August 2025, amounting to 988 patients, the number of research samples was determined by the Krejcie & Morgan table so that the number of samples was determined as 270 respondents. The data analysis technique used path analysis. The results of the analysis can be seen that there is an influence of service quality on patient satisfaction at the Medical Rehabilitation Polyclinic of UMM General Hospital, meaning that with better service quality, patient satisfaction will increase. There is an influence of service quality on patient compliance in the Medical Rehabilitation Clinic, meaning that with better service quality, patient compliance in the Medical Rehabilitation Clinic will increase. The results of the analysis show the influence of patient satisfaction on patient compliance in the Medical Rehabilitation Clinic, meaning that with increasing patient satisfaction, patient compliance will increase. Patient satisfaction has been proven to be an intervening variable in the

influence of service quality on patient compliance in the Medical Rehabilitation Clinic. These results indicate that with increasing patient satisfaction, the influence of service quality on patient compliance can increase.

Keywords: Service Quality, Patient Satisfaction, Compliance Level

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INTRODUCTION

The definition of service quality is an evaluation by customers after using a product or service that compares their expectations and perceptions of what they receive (Yusuf & Wasir, 2023). Hospital service quality is described (Swathi et al., 2023) as the difference between patient perceptions of the service received and the service they expect to receive in the hospital (Widiyanto et al., 2025). Measuring service quality is very complex and multidimensional so that it cannot use a uniform tool to define it. Based on research conducted by Fraihi & Latif, (2016) that the Parasuraman service quality model is the best model in assessing hospital and outpatient services. Based on a review conducted by Endeshaw (2026) regarding various models of measuring the quality of health services in hospitals, there are five measurement models including the Donabedian model, Servqual (Servperf), Healthqual, PubHosQual, and HospitalQual which are used by various studies from 1979-2015. From the results of the review, Endeshaw (2026) concluded that the Servqual model is a model that can be used by many studies because it can be modified and has been tested for validity and reliability. The concept of the SERVQUAL theory can be seen from five elements, including: physical evidence (tangible), reliability, responsiveness, assurance and empathy (Abdalla et al., 2018).

Patient satisfaction is a crucial asset because satisfied patients will continue to use the service they have chosen. However, dissatisfied patients are twice as likely to tell others about their bad experience (Lina & Novianti, 2020). Therefore, to create patient satisfaction, hospitals must be able to create and manage a system to acquire and retain more patients.

Patient satisfaction is one of the primary indicators of hospital standards and a measure of service quality. Low patient satisfaction will affect hospital visits, and staff attitudes toward patients will also affect patient satisfaction, as patient demands and service quality will increase over time (Lina & Novianti, 2020).

Patient satisfaction can be measured in several ways such as complaint and suggestion systems, customer satisfaction surveys, ghost shopping, and lost customer analysis (Sari, et al., 2025). The level of patient satisfaction with hospitals and hospital services can completely determine the level of quality of hospital services. Research conducted (Gumussoy & Koseoglu, 2016) states that customer value influences patient satisfaction and is a predictor that can significantly increase patient loyalty satisfaction (Gökhan et al., 2021.). According to Ahmadi et al., (2023) value, customer satisfaction, and customer loyalty influence the success of an organization through improving customer relationships and achieving competitive advantage.

Compliance is a crucial factor influencing the outcome of treatment or therapy. Several studies have shown that treatment outcomes are better for compliant patients than for non-compliant patients, particularly in cases of chronic disease treatment that requires a long period of time. Medical rehabilitation services are closely related to providing services to patients with physical disorders, ranging from impairment to disability. Research conducted by Vasey (1990) in Pasaribu (2022) found that 14% of outpatient physiotherapy rehabilitation patients did not return for follow-up. This finding aligns with a study by Susanti & Sulistiadi (2022) that found only 50% of patients adhered to chronic disease treatment programs.

In cases involving medical rehabilitation services, ineffective treatment results in disability, ultimately preventing patients from carrying out daily activities and productivity, resulting in the loss of income. Furthermore, poor compliance negatively impacts the cost of treatment (Pasaribu, 2022). Compliance studies are essential for every service provided to patients, particularly with the implementation of the National Health Insurance System (SJKN), specifically the Social Security Administration (BPJS), to prevent ineffective and inefficient treatment costs. This is especially true given that almost all residents are already enrolled in this program.

The results of research conducted by Enas & Barat, (2020), Pasaribu (2022) and Handiny et al., (2022) showed that service quality has a significant effect on patient satisfaction. Different results were shown by the results of research conducted by Enas & Barat, (2020) where service quality does not have a significant effect on patient satisfaction. Furthermore, the results of research conducted by Pasaribu, (2022) showed that service quality has an effect on patient compliance and differs from the results of research by Wartiningsih et al., (2022) and Rahmat et al., (2024) which showed that service quality does not affect patient compliance. The existence of a research gap has motivated researchers to conduct a study on the influence of service quality and patient satisfaction on patient compliance.

This research was conducted at the General Hospital of the University of Muhammadiyah Malang (RSU UMM), a type C private hospital with full accreditation and a secondary healthcare facility for the Malang City area under the BPJS (Social Security Agency) scheme. RSU UMM also serves as an educational support facility for students under the auspices of the University of Muhammadiyah Malang, operating from 2013 to the present. One of the services at RSU UMM that is the focus of this research is the Medical Rehabilitation Polyclinic.

METHOD

In this study, researchers used an analytical quantitative design with a cross-sectional approach. The population in this study were 988 outpatients at the Medical Rehabilitation Clinic of UMM Hospital in August 2025, the number of research samples was determined using the Krejcie & Morgan table so that the number of samples was determined as 270 respondents. The sampling technique using purposive sampling is a sampling with a specific purpose and is not based on strata, random, or geography, with inclusion criteria in this study including: Patients undergoing a program for less than 3 months, Age over 18 years and Willing to be research respondents and signing a letter of consent as research respondents. The exclusion criteria in this study were: respondents in an unhealthy condition that could affect the answers to the questionnaire, patients who were unwilling to be respondents and patients with cognitive, coordination and language disorders. The data analysis technique used path analysis.

In accordance with the framework of thought, two structural equations can be created, namely a regression equation that shows the hypothesized relationship. With the equation:

$$Y_1 = \alpha + \beta_1 X + e_1$$

$$Y_2 = \alpha + \beta_1 X + \beta Z + e_1$$

Information:

- Y = Patient compliance variable
 X = Service quality variable
 Z = Patient satisfaction variable
 b₁ = Regression Coefficient

In this study, validity was used *Pearson* based on the correlation formula *product moment*. The testing criteria are: If $r_{\text{count}} \leq r_{\text{table}}$ then there is no valid data whereas if $r_{\text{count}} > r_{\text{table}}$ there is valid data.

The calculated r value can be obtained based on the following formula:

$$r = \frac{n \cdot \sum XY - (\sum X) \cdot (\sum Y)}{\sqrt{n \cdot \sum X^2 - (\sum X)^2} \cdot \sqrt{n \cdot \sum Y^2 - (\sum Y)^2}}$$

Where:

- r = Correlation Coefficient
 n = Number of samples
 X = Score for each item
 Y = Total Score

RESULTS AND DISCUSSION

Based on the results of the research that has been conducted, the descriptive variables of service quality can be presented in the following table:

Table 1. Distribution of Respondents' Answers to the Service Quality Variable

Item	Respondents' Answers										Rate- Rate	Information
	SS	%	S	%	N	%	TS	%	STS	%		
X ₁	56	20,7	123	45,6	71	26,3	20	7,4	0	0	3,80	Good
X ₂	68	25,2	109	40,4	80	29,6	13	4,8	0	0	3,86	Good
X ₃	65	24,1	100	37,0	78	28,9	27	4,8	0	0	3,75	Good
X ₄	64	23,7	120	44,4	75	27,8	11	4,1	0	0	3,88	Good
X ₅	64	23,7	113	41,9	77	28,5	16	5,9	0	0	3,83	Good

Item	Respondents' Answers										Rate- Rate	Information
	SS	%	S	%	N	%	TS	%	STS	%		
X ₆	71	26,3	103	38,1	77	28,5	19	7,0	0	0	3,27	Good
X ₇	76	28,1	112	41,5	64	23,7	18	6,7	0	0	3,91	Good
X ₈	87	32,2	113	41,9	50	18,5	20	7,4	0	0	3,99	Good
X ₉	60	22,2	124	45,9	67	24,8	19	7,0	0	0	3,83	Good
X ₁₀	59	21,9	138	51,1	51	18,9	22	8,1	0	0	3,87	Good
Average Variable = 3.86											Good	

Source: Primary Data, 2025

Based on Table 1, it can be seen that the respondents' responses to the statements of the Medical Rehabilitation Polyclinic officers UMM Hospital has a very polite appearance, it can be seen that 56 respondents (20.7%) strongly agreed, 123 people or 45.6% agreed, and 71 respondents (26.3%) were neutral, and 20 respondents or 7.4% disagreed with an average value of 3.80, which is in the good category. These results indicate that respondents stated that the Medical Rehabilitation Polyclinic officers UMM Hospital has a very polite appearance.

Based on the results of the research that has been conducted, the descriptive variables of patient satisfaction can be presented in the following table:

Table 2. Distribution of Respondents' Satisfaction Variables

Item	Respondents' Answers										Rate- Rate	Information
	S	%	S	%	N	%	T	%	ST			
	S						S	S	%			
Z ₁	40	14,8	116	43,0	87	32,2	27	10,0	0	0	3,63	good
Z ₂	47	17,4	109	40,4	83	30,7	31	11,5	0	0	3,64	good
Z ₃	45	16,7	109	40,4	91	33,7	25	9,3	0	0	3,64	good
Z ₄	41	15,2	114	42,2	83	30,7	32	11,9	0	0	3,61	good
Z ₅	45	16,7	120	44,4	86	31,9	19	7,0	0	0	3,71	good
Z ₆	31	11,5	125	46,3	91	33,7	23	8,5	0	0	3,61	good
Average Patient Satisfaction Variable = 3.64											good	

Source: Primary Data, 2025

Based on Table 2, it can be seen that the respondents' responses to the statements of the Medical Rehabilitation Polyclinic officers UMM Hospital provides services in accordance with patient expectations. It can be seen that 40 respondents (14.8%) strongly agreed, 116 people or 43.0% agreed, and 87 respondents (32.2%) were neutral, and 27 respondents or 10.0% disagreed with an average score of 3.63, which is in the satisfied category. These results indicate that respondents stated that the Medical

Rehabilitation Polyclinic officers UMM Hospital provides services according to patient expectations.

Based on the results of the research that has been conducted, the descriptive variables of patient compliance levels at the Medical Rehabilitation Polyclinic of UMM Hospital can be presented in the following table:

Table 3. Distribution of Respondents' Answers to the Variable of Patient Compliance Level in the Medical Rehabilitation Clinic of UMM Hospital

Item	Respondents' Answers										Rate- Rate	Information
	SS	%	S	%	N	%	TS	%	STS	%		
Y ₁	54	20,0	143	53,0	63	23,3	10	3,7	0	0	3,89	Good
Y ₂	53	19,6	148	54,8	59	21,9	10	3,7	0	0	3,90	Good
Y ₃	55	20,4	151	55,9	56	20,7	8	3,0	0	0	3,94	Good
Y ₄	58	21,5	144	53,3	60	22,2	8	3,0	0	0	3,93	Good
Y ₅	91	33,7	119	44,1	52	19,3	8	3,0	0	0	4,09	Good
Y ₆	51	18,9	152	56,3	59	21,9	8	3,0	0	0	3,91	Good
Average Patient Compliance Level Variable = 3.94												Good

Source: Primary Data, 2025

Based on Table 3, it can be seen that the respondents' responses to the statement of trust in doctors or health workers at the Medical Rehabilitation Polyclinic UMM Hospital provides the best treatment for patients, it can be seen that 54 respondents (20.0%) strongly agreed, 143 people or 53.0% agreed, and 63 respondents (23.3%) were neutral, and 10 respondents or 3.7% disagreed with an average score of 3.89, which is in the satisfied category. These results indicate that respondents stated that they trust doctors or health workers at the Medical Rehabilitation Polyclinic. UMM Hospital provides the best treatment for patients.

DISCUSSION

Based on the results of the data analysis that has been carried out, a path can be obtained as in Figure 1 below:

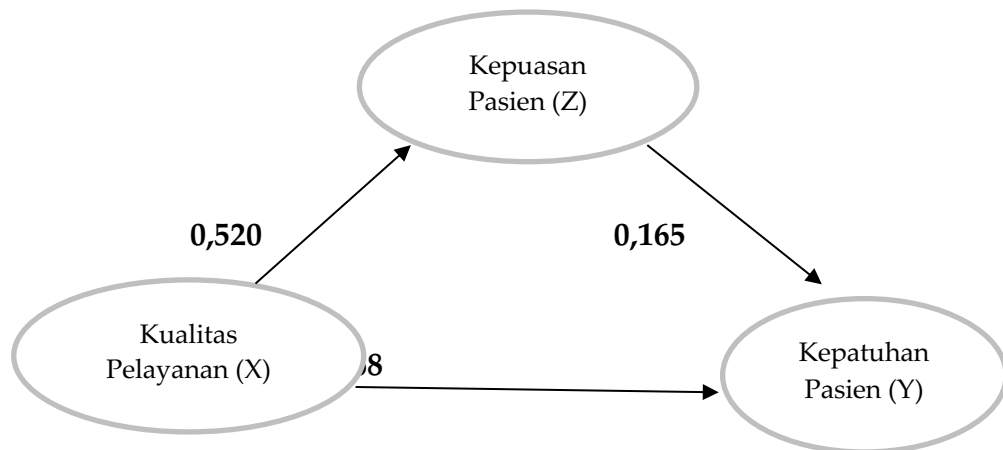


Figure 1. Results of Inter-Path Analysis

The results of the analysis show that *direct effect* (direct influence) of service quality on patient compliance at the Medical Rehabilitation Polyclinic of UMM Hospital is 0.468, meaning that with a direct change in service quality, patient compliance at the Medical Rehabilitation Polyclinic of UMM Hospital is 0.468.

Indirect Effect (IE) (indirect influence) of service quality on patient compliance in the Medical Rehabilitation Polyclinic of UMM General Hospital with patient satisfaction as a mediating variable, which is 0.554, meaning that with changes in patient satisfaction, the indirect influence of service quality on patient compliance in the Medical Rehabilitation Polyclinic of UMM General Hospital is 0.554. The results of the analysis show that patient satisfaction is proven to be an intervening variable in the relationship between service quality and patient compliance in the Medical Rehabilitation Polyclinic of UMM General Hospital. The calculation results show that the total influence is greater than the direct influence. This is proven by the calculation results *Indirect Effect (IE)* which is worth 0.468, while the quality of service influences patient compliance in the Medical Rehabilitation Clinic of UMM Hospital, namely through patient satisfaction, which is 0.554. This means that with an increase in patient satisfaction, the influence of service quality on patient compliance in the Medical Rehabilitation Clinic of UMM Hospital can increase.

The results of the analysis show that the total effect is greater than the direct effect, meaning that patient satisfaction is proven to be an intervening variable in the influence of service quality on patient compliance at the Medical Rehabilitation Polyclinic of UMM Hospital.

These results indicate that increasing patient satisfaction can increase the influence of service quality on patient compliance at the Medical Rehabilitation Polyclinic of UMM Hospital.

Based on the results of the analysis it shows that Patient satisfaction plays a role as a link between service quality and patient compliance. Patients who receive quality care, including timely care, friendliness, clarity of information, and professionalism from healthcare professionals, tend to be satisfied with the care provided. This satisfaction then influences patient behavior, such as adherence to therapy, taking medication as prescribed, and following medical instructions to completion. Surveys and research conducted at the Medical Rehabilitation Clinic at UMM Hospital indicate that patient compliance is higher among patients who are satisfied with the quality of care they receive.

Interpersonal factors, service facilities, transportation, and others influence compliance and are closely related to the quality of care provided. Furthermore, patients respond better to healthcare providers who are knowledgeable, trustworthy, confident, and confident in positive outcomes. Patient involvement improves patient compliance, which is the foundation for successful communication between patients and doctors or healthcare providers. Service quality is defined as a customer's evaluation after using a product or service, comparing their expectations and perceptions with those received (George & Sahadevan, 2019).. The results of this study support the results of previous research conducted by (Pasaribu, 2022) which stated that patient satisfaction is an intervening variable in the influence of service quality on patient compliance.

CONCLUSION

Patient satisfaction plays a crucial role as an intervening variable in the influence of service quality on patient compliance. Quality service, including punctuality, friendly demeanor, clear explanations, and professionalism from healthcare professionals, not only increases patient trust and comfort but also fosters patient satisfaction with the care received. This satisfaction then encourages patients to be more compliant in following medical recommendations, undergoing therapy consistently, and taking medications as instructed. In other words, good

service quality will be more effective in increasing patient compliance if patients are satisfied with the service.

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