

The Relationships between Reliability, Tangible Evidence, Responsiveness, Empathy, and Gender with Outpatient Satisfaction at Mitra Delima General Hospital, Malang, East Java, Indonesia

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ABSTRACT

Background: Patient satisfaction is a patient's feeling received from the health service performance felt by patients in their services and compared with what is expected. This study aims to analyze the variables that influence patient satisfaction.

Subjects and Method: This study is an observational analytical study with a cross-sectional design. This study was conducted at Mitra Delima General Hospital, Malang, in August-September 2024. A sample of 200 patients was selected using simple random sampling. The dependent variable in this study was patient satisfaction. The independent variables in the study were reliability, assurance, tangible evidence, responsiveness, empathy, and gender. Data collection was carried out using a questionnaire and analyzed using path analysis.

Results: Patient satisfaction in hospitals is influenced by reliability ($b = 0.60$; 95% CI = 0.47 to 0.73; $p < 0.001$), tangible evidence ($b = 0.43$; 95% CI = 0.29 to 0.58; $p < 0.001$), responsiveness ($b = 0.33$; 95% CI = 0.15 to 0.52; $p < 0.001$), empathy ($b = 0.72$; 95% CI = 0.56 to 0.88; $p < 0.001$), and gender ($b = 0.14$; 95% CI = 0.01 to 0.27; $p = 0.025$).

Conclusion: Patient satisfaction is positively influenced by reliability, tangibles, responsiveness, empathy, and gender.

Keywords: Reliability, tangible evidence, responsiveness, empathy, gender, patient satisfaction.

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BACKGROUND

Health is one of the basic rights of every citizen wherever they are. Law of the Republic of Indonesia Number 36 of 2009 concerning health states that health is one of the human rights and is part of the welfare of citizens and is implemented through the existence of health services, as well as information systems

that enable people to be more able to choose, determine and demand their rights to quality health services. Therefore, a system is needed that regulates the implementation of efforts to realize the rights of citizens to live healthily by prioritizing health services that can be provided by all levels of society (Aziz A, 2024).

Patient satisfaction is a subjective evaluation of the health care experience received, which is influenced by patient expectations and the quality of service actually received. Patient satisfaction is an important indicator of health care quality that reflects the ability of service providers to meet patients' needs relevant to their clinical experience. Patient satisfaction is also a multidimensional concept that includes technical, interpersonal, social, and moral aspects of health care (Batbaatar et al. (2017).

Consumer satisfaction or dissatisfaction as a customer's response to the evaluation of disconfirmation which is perceived between initial expectations before purchase or other performance norms and the actual performance of the product perceived after using or consuming the product (Schiebler, 2025). Consumer satisfaction is the level of consumer feelings after comparing what is received and expectations. A consumer, if satisfied with the value provided by a product or service, is very likely to be a customer for a long time (Devi and Yasa, 2021).

SERVQUAL is the most widely used model in measuring the quality of health services. It is still reported as the right measurement model to measure the quality of services. The SERVQUAL model consists of five dimensions, namely Reliability, Assurance, Tangible, Responsiveness and Empathy (Parasuraman in San, 2022).

Reliability is defined as the ability to provide services according to what is promised accurately and reliably (Umoke, 2020), responsiveness is the ability to help patients and provide services quickly to patients (Asminanda, 2024). Tangible evidence is defined as the physical appearance of the hospital, equipment and staff who provide health services (Handayani, 2016), empathy is the willingness to care and provide sincere and personal attention to patients (Asminanda, 2024).

Based on the results of a survey of public satisfaction with hospital services conducted by the East Java Health Office in the 3rd quarter of the 2023 fiscal year, data was obtained that the level of patient satisfaction in East Java showed that the patient satisfaction rate in East Java province was 84%, these results indicate that the patient satisfaction rate obtained by East Java province is still less than the figure set by the Ministry of Health, which is 95%.

Based on data on outpatient visits to the pediatric polyclinic in 2023, it was stated that visits in 2020 were 2,273, in 2021 were 2,611, in 2022 were 3,895, and in 2022 were 4,205. From these data, it can be seen that there was an increase of 15% in 2021, and 49% in 2022, but in 2023 the increase was only 8% (Data on Outpatient Visits at Mitra Delima Hospital, 2023).

High levels of satisfaction can enhance a hospital's reputation and attract more patients. Feedback from satisfied patients helps hospitals to identify areas for improvement. Patient satisfaction is correlated with better health outcomes and faster recovery. Hospitals with high levels of patient satisfaction tend to have more motivated medical staff. Satisfied patients are more likely to recommend the hospital to family and friends. Patient satisfaction can reduce the risk of medical malpractice lawsuits. Patient satisfaction assessments help hospitals in strategic planning and resource allocation. A focus on patient satisfaction drives innovation in healthcare delivery (Thanh et al., 2022).

Patient satisfaction is the main indicator of the quality of health services in hospitals. Thus, good quality health services can increase patient satisfaction and vice versa, poor health services will greatly reduce patient satisfaction rates, thus affecting patient loyalty in using health services again. Based on the description of the problem above, it can be seen that there are still problems in patient

satisfaction in the outpatient unit at Mitra Delima Hospital. Therefore, researchers are interested in conducting research on "The relationships between reliability, tangible evidence, responsiveness, empathy and gender to patient satisfaction in outpatient installations at Mitra Delima Hospital Malang".

SUBJECTS AND METHOD

1. Study Design

This was observational analytic with a cross-sectional study design. This study was conducted at Mitra Delima General Hospital, Malang in August - September 2024.

2. Population and Sample

The population in this study were all outpatients at Mitra Delima General Hospital, totaling 84,418 patients. A sample of 200 patients was selected randomly.

3. Research Variables

The dependent variable in this study was patient satisfaction. The independent variables in the study were reliability, tangible evidence, responsiveness, empathy and gender.

4. Operational Definition

Reliability is the ability to perform promised services reliably and accurately.

Tangible Evidence is the appearance of physical facilities, equipment, personnel, and communication materials.

Responsiveness is the willingness to help customers and provide prompt service.

Empathy is the care and individual attention given by health workers to patients.

Table 1. Characteristic of Research Sample

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Female	103	51.50
	Male	97	48.50
Age	< 29 years old	98	49.00
	≥ 29 years old	102	51.00
Education	Elementary School	4	2.00
	Middle School	9	4.50
	High School	49	24.50
	College	138	69.00

Gender is the biological difference between men and women that is present since birth.

Patient's Satisfaction is the result of subjective values regarding the quality of service provided. The data scale used is a dichotomous data scale.

5. Study Instrument

The data were collected using a questionnaire.

6. Data Analysis

Univariate analysis was used to analyze the frequency distribution of characteristics of research variable subjects. Bivariate analysis was used to observe the difference in the means of two groups. Multivariate analysis used path analysis using the Stata 13 program.

7. Research Ethics

Research ethics include consent forms, anonymity, confidentiality, and ethical feasibility. The ethical feasibility of this study came from Dr. Moewardi Surakarta Health Research Ethics Committee with the number: 2.039/VIII/HREC/2024.

RESULTS

1. Sample Characteristics

Table 1 shows that the majority of female gender is 103 people (51.50%), age more than or equal to 29 years old is 102 people (51.00%), college education is 138 people (69.00%), private employment is 89 people (44.50%). Family income is 111 people (55.50%) with income ≥Rp. 5,000,000.

Characteristic	Category	Frequency (n)	Percentage (%)
Employment	Private	89	44.50
	Civil Servant	29	14.50
	Entrepreneur	44	22.00
	Housewives	22	11.00
	Others	16	8.00
Income	< Rp. 5,000,000	89	44.50
	≥ Rp. 5,000,000	111	55.50

2. Univariate Analysis

Table 2 shows the results of univariate analysis that from 200 research subjects, reliability has a mean value (Mean= 8.2; SD= 1.36). The tangible evidence variable has a mean value (Mean= 8,36; SD= 1.89). The responsiveness variable has a mean

value (Mean= 5.86; SD= 1.17). The empathy variable has a mean value (Mean= 8.03; SD= 2.12). The patient satisfaction variable has a mean value (Mean= 6.99; SD= 1.80). The gender variable has a mean value (Mean= 0.48 ; SD= 1.80).

Table 2. Univariate analysis of reliability, tangible evidence, responsiveness, empathy, patient satisfaction and gender variables

Variable	N	Mean	SD	Min.	Max.
Reliability	200	8.2	1.36	4	10
Tangible Evidence	200	8.36	1.89	3	10
Responsiveness	200	5.86	1.17	2	8
Empathy	200	8.03	2.12	2	10
Patients Satisfaction	200	6.99	1.80	2	8
Gender	200	0.48	0.50	0	1

3. Multivariate Analysis

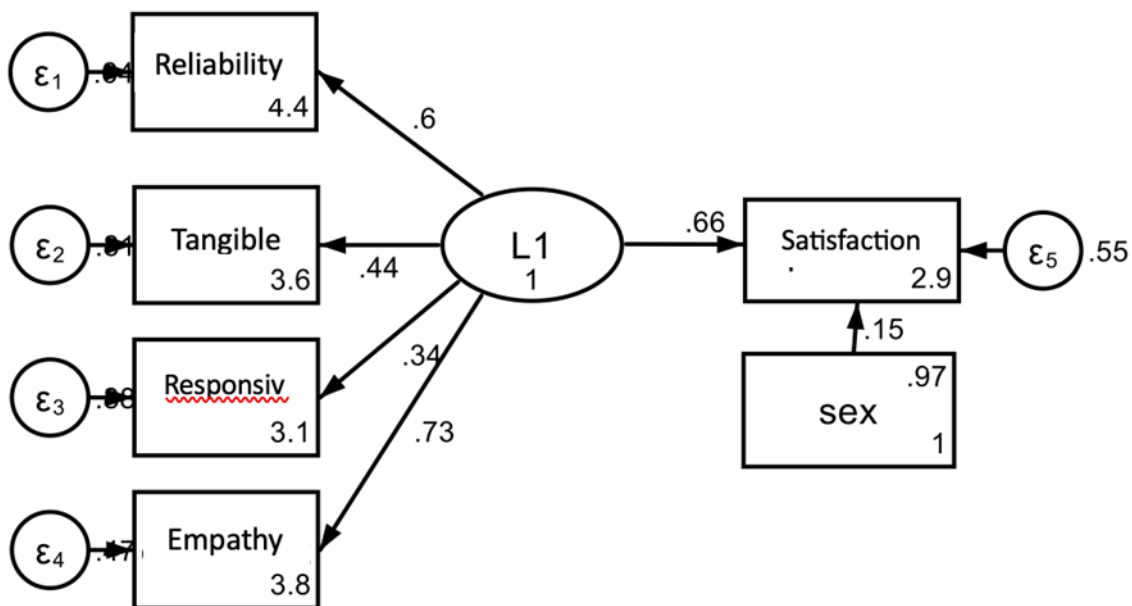


Figure 1 Structural Relationship and Effect Estimated in SEM

Figure 1 shows that in the SEM model, the latent variable of health service quality is formed by indicators that include reliability, tangible evidence, responsiveness, and empathy. The suitability of the model with the estimate can be seen from the results of the

analysis of the influence of latent variables (reliability, tangible evidence, responsiveness, empathy) and structural variables (gender) on patient satisfaction. The results of the detailed path analysis study can be seen in the table below.

Table 3. Multivariate Analysis of the Relationship between Reliability, Physical Evidence, Responsiveness, Empathy, and Gender on Patient Satisfaction

Dependent Variable	Independent Variable	Path Coef. (b)	95% CI		p
			Lower Limit	Upper Limit	
Measurement Components					
Quality of Service	← Reliability	0.60	0.47	0.73	<0.001
	← Tangible Evidence	0.43	0.29	0.58	<0.001
	← Responsiveness	0.33	0.15	0.52	<0.001
	← Empathy	0.72	0.56	0.88	<0.001
Structural Components					
Patient Satisfaction	← Gender	0.14	0.01	0.27	0.025
N observation= 200					

Table 4 shows the results of path analysis on the measurement of service quality variables and their relationship with gender and patient satisfaction.

Service Quality Measurement

Table 4 shows that the quality of health services is influenced or shaped by reliability, tangible evidence, responsiveness, and empathy. Service quality is formed by reliability indicators with a fairly large factor load (b= 0.60; 95% CI= 0.47 to 0.73; p<0.001). Service quality is formed by physical evidence indicators with a fairly large factor load (b= 0.43; 95% CI= 0.29 to 0.58; p<0.001). Service quality is formed by responsiveness indicators with a quite large factor load (b= 0.33; 95% CI= 0.15 to 0.52; p<0.001). Service quality is formed by reliability indicators with a quite large factor load (b= 0.72; 95% CI= 0.56 to 0.88; p<0.001).

Structural Quality of Service

Table 4 shows that the quality of health services is influenced or shaped by the structural components of gender and patient satisfaction.

The results showed that females rated higher quality than males, and the difference was statistically significant (b = 0.14; 95% CI= 0.01 to 0.27; p =0.025).

DISCUSSION

1. The effect of reliability on patient satisfaction

There is a positive and statistically significant relationship between reliability variables and patient satisfaction. The results show that good reliability will increase patient satisfaction by 0.60 times. Patients who receive accurate, timely, and promised services tend to be satisfied with hospital services.

Another study that supports the results of the analysis above is a study conducted by Elisabeth and Sinaga in (2022) at the Bina Kasih General Hospital in Medan which shows that the reliability dimension has an effect on patient satisfaction.

Another study that supports the results of the analysis above is a study conducted by Putra et al. (2022) which emphasized on the importance of reliability on

patient satisfaction, reliability has a positive influence on patient satisfaction. The study noted that increased reliability can increase patient satisfaction. Reliable services include accurate diagnosis, explanation of treatment, and prior information about the procedure. The study noted that increased reliability can increase patient satisfaction.

2. The effect of tangible evidence on patient satisfaction

There is a positive and statistically significant influence of the tangible evidence variable on patient satisfaction. The results show that good physical evidence will increase patient satisfaction by 0.43 times. Patients who assess that the physical appearance and completeness of adequate equipment owned by the hospital make patients tend to feel satisfied.

This research is supported by a study conducted by Bahri (2023) at the Arifin Nu'Mang Regional General Hospital, that tangible evidence has a significant influence on patient satisfaction as indicated by a significance value ($p < 0.001$). Another study conducted by Suciati et al. (2023) showed a significant relationship between tangible evidence and patient satisfaction, the study found that tangible evidence had a significant impact on patient satisfaction ($p < 0.001$).

3. The effect of responsiveness on patient satisfaction

There is a positive and statistically significant influence of the responsiveness variable on patient satisfaction. The results show that good responsiveness will increase patient satisfaction by 0.33 times. The ability of officers to provide services quickly and in accordance with standards that can meet patient expectations makes patients assess satisfaction with the services received.

Another study that supports the results of the above analysis is a study conducted by Susanty et al. (2023) which shows that the responsiveness dimension is the most

dominant dimension of service quality influencing patient satisfaction ($p = 0.003$) and statistically shows that the responsiveness dimension can increase patient satisfaction (OR = 73.63). Another study conducted by Yuliana et al (2024) reported that empathy has an impact on patient satisfaction ($p = 0.002$). Empathy involves health workers who provide non-discriminatory, communicative, and caring services. In addition, it is also found that higher levels of empathy among hospital staff were associated with patient satisfaction. This shows that patients greatly appreciate the skills and speed of health workers in providing services so that there are no errors in the services received by patients..

4. The effect of empathy on patient satisfaction

There is a positive and statistically significant influence on the empathy variable on patient satisfaction. The results show that good empathy will increase patient satisfaction by 0.72 times. The sense of care given to hospital staff to patients provides a positive value to patient satisfaction with hospital services.

Another study that supports the results of the analysis above is a study conducted by Baan et al. (2020) which showed that the results of the empathy dimension were the most influential dimension on patient satisfaction at Bahagia Hospital, Makasar, patients stated that midwives always had a patient and meticulous attitude when providing health services to patients, so it can be concluded that there is a real influence between empathy and the level of patient satisfaction, besides that the probability value of 0.013 shows that empathy has a significant effect on the level of patient satisfaction.

5. The effect of gender on patient satisfaction

There is a positive and statistically significant influence of the gender variable on patient satisfaction. The results show that female gender has a satisfaction of 0.14 times higher

compared to male patients. Men judge logically and generally about something, while women judge with feelings and things that are specific.

Another study conducted by Oroh et al. (2020) showed that there is a relationship between gender and patient satisfaction levels ($p= 0.005$). Gender has an influence on patient satisfaction because the views on the services provided by hospitals between women and men are different. Women see more appearance in detail, while men tend to be more indifferent to things around them so that men are considered more flexible than women.

AUTHOR CONTRIBUTION

All authors have made significant contributions to the data analysis and preparation of the final manuscript.

CONFLICT OF INTEREST

There was no conflict of interest in this study.

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