



Relationship Between Service Quality and Patient Satisfaction Level in Health Laboratory UPTD of Kerinci Regency

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Abstract. The quality of health services is the level of excellence of health services that can meet the needs of patients provided by medical personnel, paramedics, and medical support. The excellence of health services provided includes aspects of reliability, responsiveness, assurance, empathy, and tangibility. This study aims to determine the relationship between the quality of health services and the level of patient satisfaction at the UPTD Labkesda Kerinci Regency. The research method used is quantitative with a cross-sectional approach with univariate, bivariate, and multivariate analysis of binary logistic regression tests. The population of this study was all patients who visited the UPTD Labkesda Kerinci Regency, and samples were taken by accidental sampling of 200 patients. The results showed that assurance had a sig-p value of $0.010 < 0.05$, empathy had a sig-p value of $0.001 < 0.05$, and responsiveness had a sig-p value of $0.034 < 0.05$. This study concludes that there is an influence of assurance, empathy, and responsiveness on patient satisfaction at the UPTD Labkesda Kerinci Regency, while reliability and physical evidence do not influence patient satisfaction at the UPTD Labkesda Kerinci Regency.

Keywords: Quality of Health Services, Patient Satisfaction

INTRODUCTION

Health development is an integral and most important part of national development. The purpose of health development is to increase awareness, desire, and ability to live healthily for each person independently to realize the highest level of public health as a comprehensive, tiered, and integrated health effort. Health services for both individuals and the community must be of quality, effective, and efficient (Ulumiyah, 2018).

The quality of health services is a health service that can satisfy every user of health services according to the average level of satisfaction of the population and the standards of the professional code of ethics (Layli, 2022). Efforts to improve quality are steps taken to meet health service standards and patient satisfaction is expected to be met both internally and externally. As an important component in health services, health laboratories can ensure that examination results are always guaranteed under the applicable minimum service standards (SPM) (Kerinci District Health Office, 2023).

Laboratory services are an integral part of health services needed to support efforts to improve, prevent, and treat, as well as restore health. The Regional Health Laboratory of the Kerinci Regency Health Office is a health laboratory that plays a role in health development services such as Public Health Efforts (UKM) and Individual Health Efforts (UKP). The work programs carried out by this institution include prevention and eradication of diseases, provision and management of clean water, sanitation of residential environments, and other activities in the Kerinci Regency area (Kerinci Regency Health Office, 2023).

In realizing the vision and mission of the Kerinci Regency Health Laboratory in services based on excellent service as the goal of the health laboratory's services to the community, services can be carried out by presenting examination results quantitatively through examinations on request and qualitatively by improving the quality of laboratory examinations. This is expected to fulfill public satisfaction with laboratory services (Kerinci Regency Health Office, 2023).

One of the actions to satisfy patients is by providing the best possible service to patients. Patient satisfaction is an important concept in the concept of marketing and patient research (Rahmadani, Anwar, and Rochka, 2023). Thus, if you want to get patient satisfaction, the laboratory must have a mature and accurate marketing concept and competent human resources. Laboratories that focus on services, expertise, and human resource capabilities must always be prioritized because they meet directly with patients and are required to give a good impression to patients. This requires excellent service quality as an attraction so that repeat visits occur and trust grows in the laboratory (Suryani and Foeh, 2019).

Satisfaction is a summary of psychological conditions that result when desired expectations match the feelings formed during the consumption process carried out by the patient (Indrasari, 2019). Satisfaction is the main goal of marketing, namely through exchange activities that gain benefits (value exchange) and at the same time satisfy both parties to the transaction. The seller gets the financial benefits he receives (as value), and the buyer gets goods or services that are valuable, such as satisfaction. Patient satisfaction occurs when the patient's needs, desires, or expectations are met and there is a sense of pleasure that the services received are following expectations (Kambolong and Ambarwati, 2022).

METHODS

This study uses a quantitative research method with a cross-sectional research design. The location of this study was the UPTD Regional Health Laboratory (Labkesda) of Kerinci Regency during the research period of August - October 2023. The population of this study was all patients who visited the UPTD Regional Health Laboratory (Labkesda) of Kerinci Regency and received health services in August - October 2023. The sampling technique in this study was non-probability sampling using the accidental sampling technique. This technique is a sample determination by taking respondents who happen to be there or are met and are willing to be respondents at the UPTD Labkesda (Eddy and Iche, 2023).

The inclusion criteria in this study are patients who are willing to be respondents, patients who can read and write, patients who do not experience impaired consciousness, and patients who are visiting the UPTD Labkesda. The exclusion criteria for this study are patients under 15 years of age and patients who are not willing to be respondents.

RESULTS AND DISCUSSION

Table 1. Respondent Characteristics

No	Description	Number (n)	Percentage (%)
Gender			
1.	Male	99	49,5
2.	Female	101	50,5
I. Age			
1.	<30	30	15,0
2.	30-39	65	32,5
3.	40-49	73	36,5
4.	>50	32	16,0
II Occupation			
1.	Farmer	56	25,32

2.	Housewife	72	33,75
3.	Trader	25	12,66
4.	Teacher	15	6,33
5.	Self-employed	32	21,94
Total		200	100

Based on Table 1, it shows that out of 200 respondents, 93 (46.5%) respondents were male, and 107 (53.5%) respondents were female. There are 200 respondents aged < 30 years, as many as 30 people (15.07%) of the total number of respondents; aged 30-39 years, as many as 65 people (32.5%) of the total number of respondents; aged 40-49 years, as many as 73 people (36.5%) of the total number of respondents; and aged < 50, as many as 32 people (16.0%) of the total number of respondents. as many as 237 respondents, 60 people work as farmers (25.32%) of the total number of respondents, employment status as housewives as many as 80 people (33.75%) of the total number of respondents, employment status as traders as many as 30 people (12.66%) of the total number of respondents, employment status as teachers as many as 15 people (6.33%) of the total number of respondents, employment status as entrepreneurs as many as 52 people (21.94%) of the total number of respondents.

Table 2. Frequency Distribution of Variables

No	Description	Number (n)	Percentage (%)
I.	Reliability		
1.	Good	84	42,0
2.	Very Good	116	58,0
II	Responsiveness		
1.	Good	90	45,0
2.	Very Good	110	55,0
III	Guarantee		
1.	Good	77	38,5
2.	Very Good	123	61,5
IV	Empathy		
1.	Good	77	38,5
2.	Very Good	123	61,5
V	Physical evidence		
1.	Good	88	44,0
2.	Very Good	112	56,0
VI	Patient Satisfaction		
1.	Satisfied	87	48,5
2.	Very Satisfied	103	51,5
Total		132	100

Based on Table 2, it can be seen that respondents who stated the quality of health services based on the reliability variable with a very good category were 116 people (58.0%), and the good category was 84 people (42.0%). Respondents who stated the quality of health services based on the responsiveness variable with a very good category were 110 people (55.0%), and the good category was 90 people (45%). Respondents who stated the quality of health services based on the assurance variable with a very good category were 123 people (61.5%), and the good category was 77 people (38.5%). Respondents who stated the quality of health services based on the empathy variable with a very good category were 123 people (61.5%), and the good category was 77 people (38.5%). Respondents who stated the quality of health services based on the direct evidence variable with a very good category were 112 people (56.0%), and the good category was 88 people (44.0%). Respondents who stated patient satisfaction based on the patient satisfaction

variable with a very satisfied category were 103 people (51.5%), and the satisfied category was 97 people (48.5%).

Table 3. Relationship between Reliability Variables and Patient Satisfaction

No.	Reliability	Patient Satisfaction				N	%	<i>p-value</i>
		Satisfied		Very Satisfied				
		N	%	N	%			
1.	Good	49	58,3	35	41,7	84	100	0,018
2.	Very Good	48	41,4	68	58,6	116	100	
Jumlah		97	48,5	103	51,5	200	100	

Based on Table 3, cross-tabulation between reliability and patient satisfaction, it is known that as many as 84 respondents (100%) stated that reliability was good, as many as 49 respondents (58.3%) were satisfied with the services provided, and as many as 35 respondents (41.7%) were very satisfied with the services provided. Furthermore, from 116 respondents (100%) who stated that reliability was very good, as many as 48 respondents (41.4%) were satisfied with the services provided, and as many as 68 respondents (58.6%) were very satisfied with the services provided.

Based on the results of the chi-square test, shows that the significant value of the reliability probability is $p\text{-value} = 0.018$ or <0.05 . This proves that reliability has a relationship with patient satisfaction at the UPTD Labkesda Kerinci Regency.

Table 4. Relationship between Responsiveness Variable and Patient Satisfaction

No.	Responsiveness	Patient Satisfaction				N	%	<i>p-value</i>
		Satisfied		Very Satisfied				
		N	%	N	%			
1.	Good	54	60	36	40	90	100	0,0003
2.	Very Good	43	39,1	67	60,9	110	100	
Jumlah		97	48,5	103	51,5	200	100	

Based on Table 4, cross-tabulation between responsiveness and patient satisfaction, it is known that out of 90 respondents (100%) who stated good responsiveness, 54 respondents (60%) were satisfied with the services provided, and 36 respondents (40%) were very satisfied with the services provided. Furthermore, out of 110 respondents (100%) who stated very good responsiveness, 43 respondents (39.1%) were satisfied with the services provided, and 67 respondents (60.9%) were very satisfied with the services provided. Based on the results of the chi-square test, shows that the significant value of the reliability probability is $p\text{-value} = 0.003$ or <0.05 . This proves that responsiveness has a relationship with patient satisfaction at the UPTD Labkesda Kerinci Regency.

Table 5. Relationship between Guarantee Variable and Patient Satisfaction

No.	Guarantee	Patient Satisfaction				N	%	<i>p-value</i>
		Satisfied		Very Satisfied				
		N	%	N	%			
1.	Good	48	62,3	29	37,7	77	100	0,0003
2.	Very Good	49	39,8	74	60,2	123	100	
Jumlah		97	48,5	103	51,5	200	100	

Based on Table 5, cross-tabulation between guarantee and patient satisfaction, it is known that as many as 77 respondents (100%) stated that the guarantee was good, 48 respondents (62.3%) were satisfied with the services provided, and 29 respondents (37.7%) were very satisfied with the services provided. Furthermore, out of 123 respondents (100%) who stated that the guarantee was very good, 49 respondents (39.8%) were satisfied with the services provided, and 74 respondents (60.2%) were very satisfied with the services provided. Based on the results of

the chi-square test, shows that the significant value of the probability of the guarantee is $p\text{-value} = 0.003$ or <0.05 . This proves that the guarantee has a relationship with patient satisfaction at the UPTD Labkesda Kerinci Regency.

Table 6. Relationship between Empathy Variable and Patient Satisfaction

No.	Empathy	Patient Satisfaction				N	%	<i>p-value</i>
		Satisfied		Very Satisfied				
		N	%	N	%			
1.	Good	52	67,5	25	32,5	77	100	0,0001
2.	Very Good	45	36,6	78	63,4	123	100	
Jumlah		97	48,5	103	51,5	200	100	

Based on Table 6, cross-tabulation between empathy and patient satisfaction, it is known that as many as 77 respondents (100%) stated empathy as many as 52 respondents (67.5%) were satisfied with the services provided, and as many as 25 respondents (32.5%) were very satisfied with the services provided. Furthermore, out of 123 respondents (100%) who stated empathy, as many as 45 respondents (36.6%) were satisfied with the services provided, and as many as 78 respondents (63.4%) were very satisfied with the services provided. Based on the results of the chi-square test, shows that the significant value of the probability of guarantee is $p\text{-value} = 0.001$ or <0.05 . This proves that empathy has a relationship with patient satisfaction at the UPTD Labkesda Kerinci Regency.

Table 7. Relationship between Physical Evidence Variable and Patient Satisfaction

No.	Physical Evidence	Patient Satisfaction				N	%	<i>p-value</i>
		Satisfied		Very Satisfied				
		N	%	N	%			
1.	Good	51	58	37	42	88	100	0,0018
2.	Very Good	46	41,1	66	58,9	112	100	
Jumlah		97	48,5	103	51,5	200	100	

Based on Table 7, cross-tabulation between physical evidence and patient satisfaction, it is known that as many as 88 respondents (100%) stated physical evidence as many as 51 respondents (58%) were satisfied with the services provided, and as many as 37 respondents (42%) were very satisfied with the services provided. Furthermore, out of 112 respondents (100%) who stated physical evidence, as many as 46 respondents (41.1%) were satisfied with the services provided, and as many as 66 respondents (58.9%) were very satisfied with the services provided. Based on the results of the chi-square test, shows that the significant value of the probability of guarantee is $p\text{-value} = 0.018$ or <0.05 . This proves that physical evidence has a relationship with patient satisfaction at the UPTD Labkesda Kerinci Regency.

Table 8. Multivariate Logistic Regression Test Results

Variable	B	Sig.	Exp(B)
Reliability	0,611	0,060	1,843
Receptiveness	0,687	0,035	1,988
Assurance	0,848	0,010	2,336
Empathy	1,497	0,001	4,467
Constant	-5,744	0,001	0,003

Based on Table 8 above, the logistic regression test conducted in this study using $\alpha = 0.05$, the independent variables that have a significant influence on the dependent variable are as follows:

1. Reliability has a sig-p-value of $0.060 > 0.05$, meaning that reliability does not have a significant influence on patient satisfaction at the UPTD Labkesda Kerinci Regency
2. Assurance has a sig-p-value of $0.010 < 0.05$, meaning that assurance has a significant influence on patient satisfaction at the UPTD Labkesda Kerinci Regency
3. Empathy has a sig-p-value of $0.001 < 0.05$, meaning that empathy has a significant influence on patient satisfaction at the UPTD Labkesda Kerinci Regency
4. Responsiveness has a sig-p value of $0.034 < 0.05$, meaning that responsiveness has a significant influence on patient satisfaction at the UPTD Labkesda Kerinci Regency.

The results of this test indicate that the factors (assurance, empathy, and responsiveness) have a significant influence on patient satisfaction, while the reliability factor does not influence satisfaction at the UPTD Labkesda Kerinci Regency.

Assurance is part of the dimension of assurance with the Servqual (Service Quality) method developed by Parasuraman, Zeithaml, and Malholtra (2005). Activities to ensure certainty of the services that will be provided to customers include the ability of officers to know about services appropriately and skills in providing services so that they can foster a sense of security in customers that can instill customer trust in the company (Parasuraman, Zeithaml, and Berry, 1985). The assessment of the perception of assurance in this study includes educating health workers and being able to serve patients, maintain patient confidentiality while being treated, increase patient trust, and assist in the patient's healing process. Assurance in service quality is related to employee knowledge and their ability to foster a sense of trust and confidence in customers toward health services (Parasuraman, Zeithaml, and Berry, 1985).

According to the results of the study, the UPTD Labkesda Kerinci Regency needs to improve the education of health workers and the ability of health workers to serve patients because the education and skills of health workers are very important in helping the healing process of patients; this greatly affects patient trust so that later patients feel safe in obtaining health care services from health workers. This result is in line with the theory of quality assurance, which means convincing people, securing or maintaining, and providing fairness to patients by using techniques following procedures to improve patient care. The dimension of assurance is very important because a patient's recovery is in the hands of health workers who handle the patient during treatment so that the knowledge possessed by a health worker must follow the knowledge they have learned and follow the procedures in providing health services because patients need healing proper and guaranteed. In Permenkes 71 of 2013 it is explained that health insurance for patients must be fulfilled properly to improve the quality of health services provided. The efforts made include providing health protection to patients, obtaining health care and maintenance, and providing convenience for patients to obtain proper health services.

The empathy dimension means giving sincere attention to patients that is individual or personal and trying to understand the patient's wishes. Empathy perception is part of the empathy dimension with the Servqual (Service Quality) method developed by Parasuraman, Zeithaml, and Malholtra (2005), which includes ease of contacting the company, employee ability to communicate with customers, and company efforts to understand the needs of its customers. 34 Empathy assessment in this study includes health workers taking special time to communicate with patients, health workers always reminding the security of storing valuables of patients and their families, time for consultation with the patient's family is fulfilled, and comforting and encouraging patients to recover quickly and praying for them (Hendrajana, 2005). The most important aspect of providing satisfaction is the affective aspect, namely the patient's feeling that the nurse as a health worker listens to and understands the patient's complaints; if this cannot be provided, then dissatisfaction will arise. Empathy is a service that patients expect, which includes a well-maintained nurse-patient relationship. This is very important because it can help in the success of healing and improving the patient's health. The concept underlying the relationship between health workers and patients is a relationship of mutual trust, empathy, and caring. Patient

dissatisfaction is often expressed towards the attitudes and behavior of officers and officers who are less communicative and informative with patients. A very important thing in the empathy dimension is the free time of health workers to communicate with patients and their families so that patients will feel satisfied with the services provided.

Responsiveness is part of the responsiveness dimension with the Servqual (Service Quality) method developed by Parasuraman, Zeithaml, and Malholtra, the willingness to help customers, respond, and provide fast service, which includes the speed of employees in handling customer complaints and the alertness of employees in serving customers. The assessment of responsiveness perceptions in this study includes nurses being friendly and polite and nurses paying attention to patient needs and complaints. Based on this assessment, most respondents felt that they still received poor service on the indicator that nurses were not yet friendly and polite (Parasuraman and Berry, 1991).

According to the research results, the perception of responsiveness that needs to be improved in health services is friendly and polite service. This is very important in providing health services that satisfy patients because patients need support and friendly service with smiles and greetings that will make patients feel well served and full of patience and responsiveness so that it will help in the healing process. Responsiveness and sensitivity to patient needs will improve the quality of health services. Based on the perspective of service users, the quality of health services is a service that can fulfill all the desires or needs of patients politely, respectfully, responsively, and friendly. The relationship between the perception of responsiveness and patient satisfaction is the result of the stimulus, and the patient's five senses from the service received will be perceived so that later they will be able to assess the quality of service; if what they expect is under the reality they get, then it will be able to provide satisfaction to patients with the responsiveness of health workers, and vice versa. If what they expect is not under reality, then the patient is not satisfied. Based on the results of this study, it can be concluded that patient satisfaction and dissatisfaction are closely related to the perception of patient responsiveness because patients can directly feel the responsiveness of the health workers' services from the beginning of the service received by the patient until the end of the service provided.

CONCLUSIONS

There is no influence of reliability and physical evidence on patient satisfaction at UPTD Labkesda Kerinci Regency. There is an influence of assurance, empathy, and responsiveness on patient satisfaction at UPTD Labkesda Kerinci Regency. Assurance is the most dominant factor influencing patient satisfaction at UPTD Labkesda Kerinci Regency.

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REFERENCES

- [1] Eddy Roflin, Iche Andriyani Liberty, P. (2023) Population, Sample, Variables in Medical Research, PT. Nasya Expanding Management.
- [2] Hendrajana. (2005) The Influence of Medical, Paramedical and Medical Support Service Quality on Outpatient Customer Satisfaction at Dr. Moewardi Regional General Hospital (RSUD) Surakarta. Faculty of Public Health, Muhammadiyah University of Surakarta.
- [3] Indrasari, M. (2019). Marketing And Customer Satisfaction: Marketing and Customer Satisfaction - - Google Books. Unitomo Press [Preprint].
- [4] Kambolong, M. and AMBARWATI, L. (2022) Distribution Channel Research and Analysis

Methods. Qiara Media.

- [5] Layli, R. (2022). The Influence of Health Service Quality on Inpatient Patient Satisfaction in Hospitals: Literature Review. *Jurnal Pendidikan Tambusai*, 6(2).
- [6] Letelay, J.F. (2022) Affecting Factors Quality of Services at the Maluku Provincial Health Laboratory Center during the Covid-19 Pandemic . Doctoral dissertation, Universitas Hasanuddin.
- [7] Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4). <https://doi.org/10.1177/002224298504900403>.
- [8] Rahmadani, S., Anwar, A.A. and Rochka, M.M. (2023) Leadership, Hospital Organizational Climate, and Nurse Job Satisfaction. *NEM*.
- [9] Rofiah, N. (2019) The relationship between the quality of health services and patient satisfaction at the Rantang Health Center, Medan Petisah District in 2019. Doctoral Dissertation, Universitas Islam Negeri Sumatera Utara.
- [10] Sesrianty, V., Machmud, R. and Yeni, F. (2019). Analysis of Patient Satisfaction on the Quality of Nursing Services. *Pioneer Health Journal (Perintis's Health Journal)*, 6(2). <https://doi.org/10.33653/jkp.v6i2.317>.
- [11] Suryani, N. kadek and Foeh, J. (2019) Human Resource Management, Practical Application Review, *Academia : Accelerating The World's Research*.
- [12] Tambunan, E. (2023) The Relationship Between Quality of Health Services and Level of Satisfaction of Outpatients in the Working Area of Aek Batu Health Center. Doctoral Dissertation, Universitas Islam Negeri Sumatera Utara Medan.
- [13] Ulumiyah, N.H. (2018). Improving the Quality of Health Services by Implementing Patient Safety Efforts in Health Centers. *Indonesian Journal of Health Administration*, 6(2). <https://doi.org/10.20473/jaki.v6i2.2018.149-155>.