

# Analysis of Service Quality in Improving Patient Satisfaction and Loyalty in Pratama Berkah Sehat

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**Abstract:** Health services cannot be separated from the demands of competition in all aspects. Good service management is needed to create the health services the surrounding community needs so that the community feels satisfaction with health services as one of the businesses that must be carried out. The research design used in this research is quantitative. The population and sample used for this study were all patients who were treated at the Berkah Sehat Primary Clinic, totaling 200 patients. All of the 200 patients who sought treatment at the Berkah Sehat Pratama Clinic between March 2023 and April 2023 comprised the population and sample for this study. The study's objective was to examine the impact of the clinic's doctor, pharmaceutical, laboratory, and patient loyalty quality levels. Data analysis used Structural Equation Modeling (SEM) analysis with the Amos application version 24, Excel, and Spss. With a factor loading value of 0.989, assurance receives the best ranking for doctor services. With a factor loading value of 0.957, assurance receives the best grade in the pharmaceutical services category. With a factor loading value of 0.982, reliability receives the highest ranking for laboratory technician services. Product quality has the greatest factor loading value for patient satisfaction, at 0.965. The statement that I won't visit any clinic because I am satisfied with the services offered at the Berkah Sehat Primary Clinic with a loading factor value of 0.798 and the statement that if one day my family or friends need medical care, I would advise them to visit the Berkah Sehat Pratama Clinic with a loading factor value of 0.798 represent the highest assessments of patient loyalty. The results of the direct impact analysis show that doctors service quality, pharmacy service quality, and laboratory technician service quality influence patient loyalty. Patient satisfaction can influence the impact of the quality of service of doctors, pharmaceutical companies and laboratory technicians on loyalty at Berkah Sehat Primary Clinic.

**Keywords:** Patient loyalty; Patient satisfaction; Quality of service

## Introduction

Patient satisfaction and patient loyalty are related, leading to the conclusion that satisfaction helps build loyalty among patients, thus patient satisfaction and loyalty are directly related (Fatima et al., 2018). Patient satisfaction is considered to be one of the positive outcomes in healthcare as it is directly related to reuse of healthcare services and success of healthcare facilities

(Addo et al., 2020). Customers are dissatisfied when performance doesn't meet their expectations. Customers are happy when performance meets their expectations. Customers are very happy when performance exceeds their expectations.

Behavioral loyalty combines with a continuing desire to get services from the same provider, expanding the scale and level of relationship and willingness to recommend (Fatima et al., 2018). Patient loyalty is

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related to overall satisfaction with products or services after several purchases and their experiences from time to time (Meesala et al., 2018). Hospitals need to understand that there is a correlation between the dimensions of quality care, patient satisfaction and patient loyalty (Meesala et al., 2018). Patient satisfaction is directly related to patient loyalty to the hospital (Meesala et al., 2018).

In order to gather more detailed information, it was necessary to collect data from both inpatients and outpatients for the research that was conducted at the Pratama Hospital. By incorporating the service variables of doctors, pharmacists, and laboratory analysts into inpatient and outpatient care, the Pratama Hospital researchers were able to better understand the variables in the previous study that had not been researched on by doctors, pharmacists, and laboratory analysts.

Pratama Berkah Sehat Clinic is a clinic with inpatient, outpatient, MCH, ER, and pharmacy installation services that provide 24-hour service. The Berkah Sehat Pratama Clinic is located in Kedungharjo Village, Mantingan District, Ngawi Regency, East Java Province, Indonesia. Pratama Berkah Sehat Clinic is a private clinic serving general patients (non-BPJS). Service quality is a factor that influences service in an institution. This patient satisfaction research will contribute to the development of management science, especially in the marketing field and increase patient loyalty to seek treatment at the Berkah Sehat Pratama Clinic.

The clinic has a role as a public organization that provides health services, which cannot be separated from the demands of competition in all aspects. To be able or able to compete, improving the quality of service is one of the efforts that must be done. Clinics must provide quality services, away from the negative views that develop in the community; for example, service times are slow, staffs are unfriendly, and service facilities are inadequate, causing problems for clinics in the future. Good service management is needed in order to create the health services needed by the surrounding community so that people feel satisfied with health services.

To create competition for healthy health services, those provided at the Berkah Sehat Primary Clinic. Even though the Pratama Berkah Sehat Clinic was established in a rural area, it has only been established for 2 years, there are many other primary clinics that have been established for a long time compared to the Pratama Berkah Sehat Clinic, and the limited number of human resources has forced the clinic to improve good health services. Good service will affect patient satisfaction and increase patient loyalty (which) will lead to a desire to return to the Berkah Sehat Pratama Clinic for treatment and recommend to others when sick go to the Berkah

Sehat Pratama Clinic so that it will increase the number of patient visits and income at the Berkah Sehat Pratama Clinic.

The study's objective is to examine how the Pratama Berkah Sehat Ngawi Clinic's physician, pharmaceutical, laboratory, and patient loyalty standards affect each other.

## Method

The research design used in this research is quantitative. All patients treated at the Berkah Sehat Primary Clinic, a total of 200 patients over the age of 17, male and female, with at least an elementary education, and patients who used the services of doctors, pharmacists, and technicians, comprised the population and sample for this study. Undertaken in a lab between March and April of 2023. Data analysis used Structural Equation Modeling (SEM) analysis with the Amos application version 24, Excel, and Spss. This study employed a quantitative research design. Questionnaires are used in quantitative approaches (Barrio-Cantalejo et al., 2009; Gasquet et al., 2004; Traverso et al., 2007). The questionnaire asks about patient loyalty, patient happiness, and the quality of services provided by medical staff (including laboratory technicians, doctors, and pharmacists).

The validity and reliability tests were carried out again at the Berkah Sehat Pratama Clinic to determine the feasibility of the questionnaire after examining each question from the supervisor based on language and sentence structure. On 200 patients between March 2023 and April 2023 at the Pratama Berkah Sehat Clinic, a validity and reliability test of the questionnaire for this study's quality of doctor's services, quality of pharmaceutical services, quality of laboratory technician services, patient satisfaction, and patient loyalty was conducted. All items measuring the variables of patient satisfaction, patient loyalty, laboratory technician service quality, pharmaceutical service quality, and doctor's service quality were found to be valid because they had correlations greater than 0.254 ( $n = 60$ ) according to the findings of the validity and reliability tests. The items measuring the variables of doctor's service quality, pharmaceutical service quality, laboratory technician service quality, patient satisfaction, and patient loyalty were deemed reliable because the reliability test results showed that the value of Cronbach's alpha was  $> 0.7$  (No.2739/KEP-UNISA/IV/2023).

## Result and Discussion

### Results

According to the aforementioned statistics, out of the 200 research participants, 79 participants (39.5%) and 118 participants (59.0%) were female. 90 respondents (45.0%) identified as housewives, while 115 respondents (57.5%) reported having a high school diploma as their highest level of education.

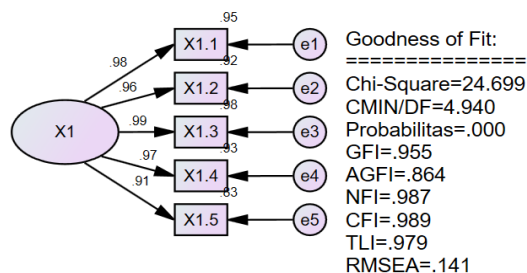
**Table 1.** Number of Respondents Based on Characteristics

Respondent Characteristics	Frequency	Percentage
Age		
a. 19-30 years	57	28.5
b. 31-40 years	79	39.5
c. 41-50 years	40	20.0
d. 51-60 years	15	7.5
e. >60 years	9	4.5
Gender		
a. Man	82	41.0
b. Women	118	59.0
Work		
a. Director	1	.5
b. Employee	22	11.0
c. Self-employed	45	22.5
d. Farmer	41	20.5
e. Housewife	90	45.0
f. Student	1	.5
Education		
a. Elementary school	34	17.0
b. Junior high school	49	24.5
c. Senior high school	115	57.5
d. Bachelor	2	1.0
Total	200	100.0

### Validity Test

#### a) Test the Validity of Doctor's Service Quality Variables (X1)

Since all of the question items had a factor loading value of > 0.5, the validity test findings for the quality of doctor's service variable may be interpreted to mean that none of the aforementioned question items were eliminated from the study questionnaire. With a factor loading value of 0.989, assurance receives the best ranking for doctor services.



**Figure 1.** Test results of variable validity of doctor's service quality (X1)

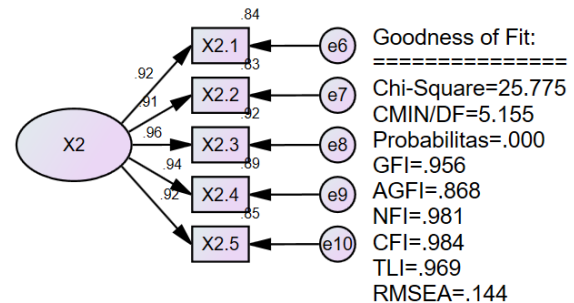
**Table 2.** Test Results of Variable Validity of Doctor's Service Quality (X1)

Items		Loading Factor	Information
X1.1	Item 1	0.976	Valid
X1.2	Item 2	0.959	Valid
X1.3	Item 3	0.989	Valid
X1.4	Item 4	0.967	Valid
X1.5	Item 5	0.912	Valid

Source: Primary data processed in 2023

#### b) Variable Validity Test Quality of Pharmaceutical Services (X2)

Since all of the question items in the validity test of the variable quality of pharmaceutical services have a factor loading value of > 0.5, it can be deduced from the findings that they are all valid and that none of the aforementioned question items were eliminated from the research questionnaire. Assurance has the highest evaluation in pharmaceutical services, with a factor loading value of 0.957.



**Figure 2.** Results of the pharmaceutical service quality variables validity test (X2)

**Table 3.** Results of the Pharmaceutical Service Quality Variables Validity Test (X2)

Items		Loading Factor	Information
X2.1	Item 1	0.919	Valid
X2.2	Item 2	0.911	Valid
X2.3	Item 3	0.957	Valid
X2.4	Item 4	0.943	Valid
X2.5	Item 5	0.921	Valid

Source: Primary data processed in 2023

#### c) Variable Validity Test of Laboratory Technician Quality of Service (X3)

Since all of the question items in the validity test of the variable quality of laboratory technician service have factor loading values more than 0.5, it can be deduced from the findings that they are all valid and that none of the aforementioned question items should be removed from the research questionnaire. Reliability has the highest rating in laboratory technician services, with a factor loading value of 0.982.

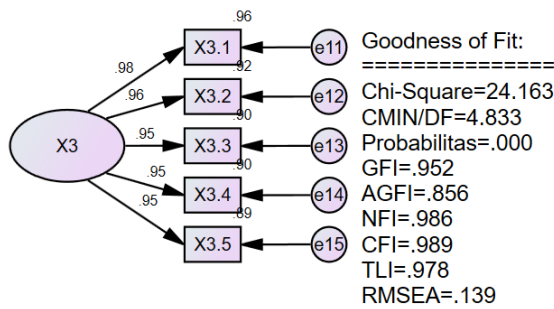


Figure 3. Variable Validity Test Results of Quality of Service for Laboratory Technicians (X3 )

Table 4. Validity Test Results for Laboratory Technician Service Quality Variables (X3)

Items		Loading Factor	Information
X3.1	Item 1	0.982	Valid
X3.2	Item 2	0.959	Valid
X3.3	Item 3	0.946	Valid
X3.4	Item 4	0.950	Valid
X3.5	Item 5	0.945	Valid

Source: Primary data processed in 2023

d) Test the Validity of Patient Satisfaction Variables (Y1)

Because all of the question items had a factor loading value of > 0.5, it can be inferred from the findings of the patient satisfaction variable's validity test that they are all valid. As a consequence, none of the aforementioned question items were eliminated from the study questionnaire. Product quality has the greatest factor loading value for patient satisfaction at 0.965.

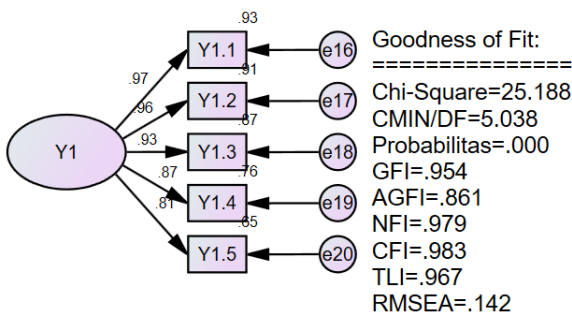


Figure 4. Patient satisfaction variable validity test results (Y1)

Table 5. Patient Satisfaction Variable Validity Test Results (Y1)

Items		Loading Factor	Information
Y1.1	Item 1	0.965	Valid
Y1.2	Item 2	0.956	Valid
Y1.3	Item 3	0.933	Valid
Y1.4	Item 4	0.869	Valid
Y1.5	Item 5	0.809	Valid

Source: Primary data processed in 2023

e) Variable Validity Test (Y2)

As a consequence of the loyalty variable's validity test results, which showed that all of the question items

had factor loading values more than 0.5, none of the aforementioned question items were eliminated from the study questionnaire. The best indicator of patient loyalty is the declaration that I won't visit any other clinic because I am satisfied with the services offered at the Berkah Sehat Pratama Clinic, which has a factor loading value of 0.798, and the declaration that if my family or friends ever needed medical care, I would advise them to visit the Pratama Berkah Sehat Clinic as well.

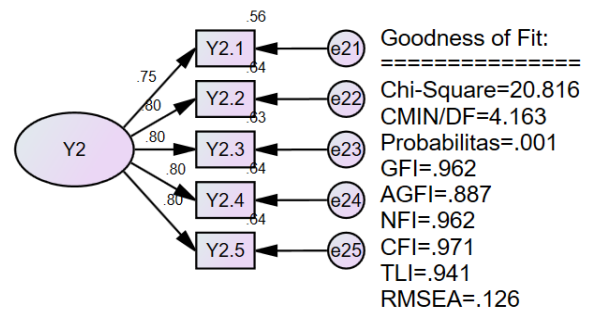


Figure 5. Loyalty variable validity test results (Y2)

Table 6. Loyalty Variable Validity Test Results (Y2)

Items		Loading Factor	Information
Y2.1	Item 1	0.751	Valid
Y2.2	Item 2	0.798	Valid
Y2.3	Item 3	0.796	Valid
Y2.4	Item 4	0.799	Valid
Y2.5	Item 5	0.798	Valid

Source: 2023 processed of primary data

Reliability Test

This research instrument has satisfied the requirements for validity and reliability, thus it can be said that it is appropriate for use in collecting research data. Based on Table 6, it is known that all research variables have a Construct Reliability value more than 0.70. The quality of the doctor's service received the highest rating in this study, with a Construct Reliability value of 0.984. Patient loyalty had the lowest value in this investigation, with a construct reliability score of 0.892.

Table 7. Instrument Reliability

Variable	Construct Reliability	Information
Doctor's Service Quality	0.984	Reliable
Quality of Pharmaceutical Services	0.970	Reliable
Laboratory Technician Service Quality	0.982	Reliable
Patient Satisfaction	0.959	Reliable
Loyalty	0.892	Reliable

Source: 2023 processed of primary data



Results of Data Analysis

a) Goodness of Fit Model

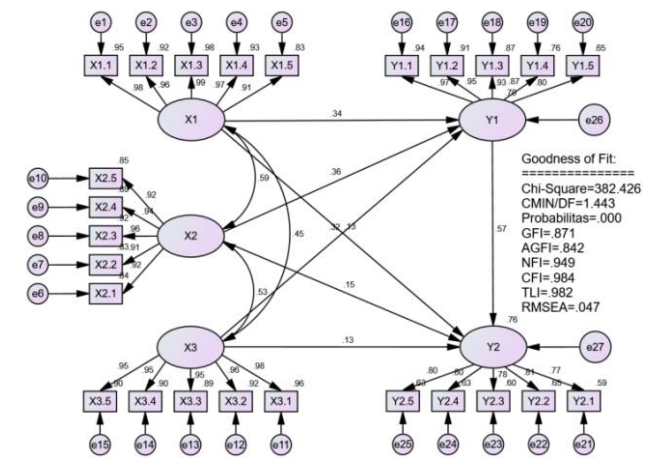


Figure 6. Results of SEM model analysis sull model

The computational results with the AMOS program for this SEM model produced goodness-of-fit indices as shown in Table 8. With a Chi-Square value of 382.426 and a probability of 0.000, the Goodness of Fit findings show that the model is not fit since the value does not match the suggested value. To assess the overall goodness of fit of the model, additional fit criteria include CMIN/DF, GFI, AGFI, NFI, CFI, TLI, and RMSEA. A marginal fit model is indicated by the GFI

value of 0.871 and AGFI of 0.842 since they are near to the advised limitations. The model is fit as evidenced by the CMIN/DF value of 1.443, NFI of 0.949, CFI of 0.984, TLI of 0.982, and RMSEA of 0.047. This is because the model's output matches the suggested values

Table 8. Initial Model Goodness of Fit Index

Goodness of Fit	Analysis Results	Cut-off Value	Information
$\chi^2$ ( Chi-Square)	382.426	Expected small	marginal
Probability	0.000	$\geq 0.05$	Marginal
CMIND/DF	1.443	$\leq 2$	Fit
GFI	0.871	$\geq 0.90$	Marginal
AGFI	0.842	$\geq 0.90$	Marginal
NFI	0.949	$\geq 0.95$	Fit
CFI	0.984	$\geq 0.90$	Fit
TLI	0.982	$\geq 0.95$	fit
RMSEA	0.047	$\leq 0.08$	fit

Source: Primary data processed in 2023

b) Hypothesis Testing

The research hypothesis is the relationship between the variables tested by looking at the partial test of each variable. To accept the alternative hypothesis that there is an influence of the independent variable on the dependent variable can be assessed from the value of C, R. The alternative hypothesis is accepted if the CR value  $\geq 1.96$  or  $P \leq 0.05$ , a summary of the results of testing the research hypothesis can be seen as follows.

Table 9. Hypothesis Test

Hypothesis	Estimates	CR	P	Information
Doctor's Service Quality → Satisfaction	0.314	6,385	0.000	Accepted
Quality of Pharmaceutical Services → Satisfaction	0.401	6,310	0.000	Accepted
Laboratory Technician Service Quality → Satisfaction	0.297	6,383	0.000	Accepted
Satisfaction → Loyalty	0.535	6,258	0.000	Accepted
Hypothesis	Direct	Indirects	Information	
Doctor → Service Quality Patient Satisfaction → Loyalty	0.128	0.190	Accepted	
Quality of Pharmaceutical Services → Loyalty Patient Satisfaction →	0.148	0.203	Accepted	
Laboratory Technician → Service Quality Patient Satisfaction → Loyalty	0.134	0.181	Accepted	

Source: Primary data processed in 2023

Discussion

The Impact of the Pratama Berkah Sehat Ngawi Clinic's Doctors' Level of Service on Patients' Satisfaction

The results of the study demonstrate that patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic is influenced by the caliber of the doctor's services. The results of this study support other studies' explanations that the most crucial factor predicting patient happiness is at the hospital was experience with physician services (Bjertnaes et al., 2012). Patient satisfaction was shown to be significantly impacted by the doctor-patient connection and doctor-patient experience (Ekaterina, 2017). According to Putu et al. (2018), service quality has

a favorable and considerable impact on satisfaction. Because doctor behavior is considered a major component of patient satisfaction (Dixit et al., 2018)

Patients who visit health facilities pay attention to all aspects of doctor behavior, including communication, guidance, and information about the disease (Mitropoulos et al., 2018). Doctor's medical knowledge, comfortable, and warm interactions with doctors (McFarland et al., 2017). Doctor's attitude, doctor's technical competence, doctor's reputation, and others (Kamra et al., 2016). Quality services that generate trust and communication with a patient-centered approach have contributed to improving patient health with

patients feeling satisfied with the services they offer in health facilities. Regardless of the doctor's communication skills, the level of interpersonal care and knowledge of the patient, and care assurance lead to patient satisfaction (Chandra et al., 2018).

The computed regression weight coefficient parameter on the impact of doctor service quality on patient satisfaction is positive, estimated at 0.314, indicating a positive association between the two. This implies that patient satisfaction will rise in direct proportion to how well the doctor's services are provided. The hypothesis that "The quality of doctor's services has a positive and significant effect on patient satisfaction at Pratama Berkah Sehat Ngawi Clinic" (H1) is accepted based on testing the relationship between these two variables, which yielded a C.R value of 6.385 > 1.96 and a probability value of 0.000 (p<0.05).

#### *The Impact of the Berkah Sehat Ngawi Pratama Clinic's Pharmaceutical Services' Quality on Patient Satisfaction*

Pharmaceutical services to patients, apart from doctors and other medical personnel, one of which is pharmacy, has a very important role in providing services to patients, and it is hoped that the services provided by other medical personnel will be able to provide satisfaction to the patients they serve (Nugroho et al., 2023). The findings of this study indicate that there is a quality of pharmaceutical services on patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic.

The results of this study support earlier research, which suggests that pharmaceutical services significantly improve patient satisfaction. Pharmaceutical services have a significant impact on patient satisfaction (Hussain et al., 2019). The attitude of the pharmacist has a beneficial impact on patient satisfaction (Khudair et al., 2013). The services offered by the pharmacists to HIV patients at the South East HIV clinic in Nigeria were very well received (Okoye et al., 2014).

Given the healthcare system's current shift towards high-quality service delivery, it was discovered that patient satisfaction with pharmaceutical services was extremely poor. Therefore, healthcare providers and administrators must pay attention to the factors that contribute to improving service quality and ultimately increasing patient satisfaction (Ayele et al., 2020).

The regression weight coefficient's estimate parameter, which measures how well pharmaceutical services affect patient satisfaction, is positive by 0.401, indicating a positive correlation between the two variables. This implies that patient satisfaction will rise in direct proportion to the quality of pharmaceutical treatments. The hypothesis that "The quality of pharmaceutical services has a positive and significant effect on patient satisfaction at the Pratama Berkah Sehat

Ngawi Clinic" (H2) is accepted because the test of the relationship between the two variables yields a CR value of 6.310 > 1.96 and a probability value of 0.000 (p < 0.05).

#### *The Impact of Laboratory Technician Service Quality on Berkah Sehat Ngawi Pratama Clinic Patients' Happiness*

The service quality of laboratory technicians influences patient satisfaction at the Berkah Sehat Ngawi Pratama Clinic. The results of this study are in line with earlier studies showing that laboratory services significantly increase patient satisfaction. Pharmaceutical services have a significant impact on patient satisfaction (Hussain et al., 2019). According to other research as well (Manzoor et al., 2019), laboratory healthcare services and diagnostic care are positively and substantially associated to patient satisfaction characteristics. Hospital management can improve patient satisfaction by offering laboratory services (Kamra et al., 2016).

The more satisfied patients are with the laboratory staff, the greater the degree of service quality offered. As seen by their courteous and warm communication style, laboratory technicians at the Berkah Sehat Primary Clinic have a high level of empathy for their patients. According to Abera et al.'s study, laboratory services had a substantial impact on patient satisfaction since the total level of patient satisfaction with clinical laboratory services was 59.7% and the response rate was 210 (100%). According to Ubaidillah, satisfaction is a prominent aspect in the operational level of hospital services, including laboratory services. From the point of view of service recipients by consumers, satisfaction is an important factor that has an impact on the success of a hospital in increasing the number of patient visits (Ubaidillah, 2021).

The computed regression weight coefficient parameter for the effect of laboratory technician service quality on patient satisfaction is positive at 0.297, indicating a positive link between the two variables. Accordingly, patient satisfaction will increase when laboratory technician service quality improves. The hypothesis that "The quality of laboratory technician services has a positive and significant effect on patient satisfaction at Pratama Berkah Sehat Ngawi Clinic" (H3) is accepted as a result of the test between these two variables, which yielded a C.R value of 6.383 > 1.96 and a probability value of 0.000 (p<0.05).

#### *The Impact of Patient Loyalty at the Berkah Sehat Ngawi Pratama Clinic on Patient Satisfaction*

Empirical data show that patient loyalty at the Pratama Berkah Sehat Ngawi Clinic is influenced by patient satisfaction. The findings of this study are consistent with those of Putu et al.'s (2018) research, which indicated that service quality has a favorable and

substantial impact on loyalty. According to a different study, patient loyalty to the hospital is directly correlated with patient satisfaction (Meesala et al., 2018).

Due to the high association between satisfaction and loyalty, contentment is the most researched precondition for consumer loyalty (Kasiri et al., 2017). Patient loyalty is positively impacted by high patient satisfaction (Ramli, 2019). According to Zhou et al. (2017), satisfaction has a strong, positive direct influence on loyalty. Patient loyalty and satisfaction have a favorable association, according to Tanford (2016). According to Gursoy et al. (2021), client satisfaction improves recurring business.

Doctors, pharmacists, and laboratory technicians that provide competent, courteous, pleasant, and gratifying services are regarded favorably by patients. In relation to the consistency of customer expectations, perception of results, and patient evaluation, patient satisfaction is considered as a factor of patient expectations for the hospital. Patient satisfaction (satisfaction) will enhance patients' propensity to make follow-up visits and will generate positive expectations for the hospital (Sitio et al., 2019).

Since the calculated regression weight coefficient parameter on the impact of laboratory technician service quality on patient satisfaction is positive at 0.297, it can be concluded that there is a positive link between the two. This implies that patient satisfaction will increase in direct proportion to the quality of laboratory technicians' services. The hypothesis (H3) that "The quality of laboratory technician services has a positive and significant effect on patient satisfaction at Pratama Berkah Sehat Ngawi Clinic" is accepted because the test of the relationship between these two variables yielded a C.R value of  $6.383 > 1.96$  and a probability value of 0.000 ( $p < 0.05$ ), considerable impact on Pratama Berkah Sehat Ngawi Clinic patients' happiness, acknowledged.

#### *At the Pratama Berkah Sehat Ngawi Clinic, Patient Satisfaction Acts as a Mediating Factor between Doctor Service Quality and Patient Loyalty*

Patient satisfaction at the Pratame Berkah Sehat Ngawi Clinic mediates the relationship between the doctor's service quality and patient loyalty. Quality is defined in physician services as health services that are accessible and affordable, which improve patient health status and increase patient and service provider satisfaction (Mosadeghrad, 2013). Doctors have an important role in increasing patient satisfaction. Patient loyalty is highly correlated with a doctor's medical services in terms of tangibles, dependability, responsiveness, and empathy. The effect of doctor's service on loyalty through satisfaction as an intervening variable is because the majority of respondents are loyal to the hospital because they are satisfied with the

doctor's service received at the hospital and the doctor's relational relationship with the patient is also good. Factors increase satisfaction to lead to loyalty (Nugroho et al., 2023; Pangerapan et al., 2018).

Supported by the results of previous studies, it is showing that service quality has a positive direct effect on patient loyalty and satisfaction. Meanwhile, patient satisfaction mediates the relationship between service quality and patient loyalty (Aladwan et al., 2021). The service quality of medical personnel has a positive effect on patient loyalty through the mediating influence of patients (Addo et al., 2020). Service quality is a prerequisite for patient satisfaction, which in turn is a prerequisite for patient loyalty (Ngo et al., 2016).

By comparing the direct impact value to the indirect effect value, it is possible to assess how patient pleasure mediates the relationship between the quality of a doctor's service and patient loyalty. Testing the correlation between these two variables yields a value of 0.128 0.190, demonstrating that patient satisfaction mediates the impact of good patient loyalty on the standard of the doctor's care. This suggests that patient happiness will increase with improved medical care, which will result in a rise in patient loyalty. Therefore, (H5), which asserts that "Patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic mediates the impact of doctor service quality on patient loyalty," is acceptable.

#### *Pratama Berkah Sehat Ngawi Clinic Patients' Satisfaction with the Pharmaceutical Services Impacts Patient Loyalty*

At the Pratama Berkah Sehat Ngawi Clinic, patient satisfaction acts as a mediator between the quality of pharmaceutical services and patient loyalty. Past examinations have shown an immediate impact of drug administration quality on the steadfastness of 0.550, while a backhanded impact intervened by quiet fulfillment is 0.303. It shows that the immediate impact is more noteworthy than the aberrant impact of administration quality on short term steadfastness at the Daya General Clinic (Handayani, 2021; Kiran et al., 2011). Service quality can predict patient satisfaction and loyalty (Gong et al., 2018; Knox et al., 2020). According to Makanyeza et al. (2017), patient satisfaction is a structure in between service quality and customer loyalty.

Patient satisfaction in pharmaceutical services directly influences patient loyalty. Pharmacy must evaluate patients' needs and circumstances holistically, accounting for emotional, psychological, social, and biological elements. This is required by both professional and ethical standards. Pharmacy can use practical ways to promote patient-centered communication, involve patients in their care, and encourage the establishment of a pharmacist-patient



relationship based on mutual respect. This leads to a common knowledge of all the problems, goals, and challenges of managing therapy (Pribadi et al., 2021).

By comparing the value of the direct effect to the value of the indirect impact and examining the link between the two variables, it is possible to examine how the quality of pharmaceutical services affects patient loyalty as mediated by patient satisfaction. The result is a value of 0.148 0.203. This shows that patient loyalty is positively mediated by patient happiness and the quality of pharmaceutical treatments. Therefore, the higher the quality of pharmaceutical services, the more satisfied patients will be, which will affect their loyalty. Therefore, it is acknowledged that (H6), which indicates that "Patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic mediates the quality of pharmaceutical services on patient loyalty," is true.

*At the Berkah Sehat Ngawi Pratama Clinic, Patient Satisfaction is a Mediator between Laboratory Technician Service Quality and Patient Loyalty*

Patient satisfaction at the Pratame Berkah Sehat Ngawi Clinic acts as a mediator between the service quality of laboratory technicians and patient loyalty. A pathologist describes quality as the accuracy and reliability of clinical laboratory test results (Mosadeghrad, 2013). Technical quality reflects the professional competence and expertise of laboratory technicians in carrying out tests. Patient expectations need to be considered in the delivery of health services because information about this can not only help ensure that medical procedures are effective from an expert's point of view, but can also help achieve goals in functional quality (Teshnizi et al., 2018).

Ongoing laboratory services are offered in a variety of methods, from point-of-care testing that produces instant results to extremely sophisticated laboratory tests that call for cutting-edge equipment and qualified personnel. Laboratories need to achieve greater efficiency, accessibility, safety, and reliability, as well as become more transparent and responsive to patient needs (McPherson et al., 2021). Skilled and professional services are needed by laboratory technicians to increase patient satisfaction and loyalty. According to Fatima et al., patients prefer to visit private hospitals due to good staff interaction, well-equipped laboratories, and well-explained and well-managed discharge procedures (Fatima et al., 2018).

Testing the relationship between these two variables reveals a value of 0.134 0.181, indicating that patient satisfaction mediates the influence of the quality of laboratory technician service on patient loyalty. The influence between the quality of laboratory technician service and patient loyalty is influenced by patient satisfaction, and this influence can be analyzed by

comparing the direct effect value to indirect effect value. positive. This implies that patient satisfaction will increase and brand loyalty will rise as a result of enhanced laboratory technician service. The statement (H7), "The quality of laboratory technician service on patient loyalty is mediated by patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic," is thus acceptable. The impact of patient happiness and the quality of pharmaceutical services on patient loyalty.

## Conclusion

The results showed that the quality of doctor's service had a positive and significant effect on patient satisfaction at the Berkah Sehat Ngawi Primary Clinic, the quality of pharmaceutical services had a positive and significant effect on patient satisfaction at the Berkah Sehat Ngawi Primary Clinic, the service quality of laboratory technicians had a positive and significant effect on patient satisfaction at the Clinic Pratama Berkah Sehat Ngawi, patient satisfaction affects patient loyalty at the Pratama Berkah Sehat Ngawi Clinic, doctor service quality influences patient loyalty mediated by patient satisfaction at the Pratama Berkah Sehat Ngawi Clinic, pharmaceutical service quality influences loyalty mediated by patient satisfaction at Berkah Sehat Ngawi Pratama Clinic, service quality of laboratory technicians influences patient loyalty mediated by patient satisfaction at the Berkah Sehat Ngawi Primary Clinic. The limitation of this research is that this research is limited to only examining the variables of doctor services, pharmaceutical services, laboratory technician services, satisfaction and loyalty, the method in this research uses purely quantitative methods without involving informants in interviews, this research is limited to only researching at the Pratama Berkah Sehat Clinic. The advice given to future researchers is that it is hoped that they can add other variables in further research so that they can be explored further which could influence future research. For example, variables for administrative services, nursing services, midwife services, etc. In further research, interviews can be added so that they can become important data that researchers process. Research on the same topic can be developed with larger clinical objects or hospital scope.

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**Conflicts of Interest**

The authors declare no conflict of interest.

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