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# THE EFFECT OF QUALITY OF SERVICE ON PATIENT LOYALTY IN THE INTERNAL MEDICINE OUTPATIENT WITH PATIENT SATISFACTION AS INTERVENING FACTOR (CASE STUDY AT AL-IHSAN HOSPITAL BANDUNG)

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***Abstract***.

*Quality health services can improve health development, where the hospital is one of the institutions that play an important role in the implementation of quality health services. Service quality consists of several aspects, one of which is patient satisfaction. Patient satisfaction is the capital to get more and loyal patients, where the patient is one indicator of service quality. Service quality also has a role in patient satisfaction and patient loyalty. This research was conducted at the Internal Medicine outpatient of Al-Ihsan Hospital Bandung. The type of research conducted is quantitative analytic with path analysis method and cross sectional approach using questionnaires. Data were taken on 88 patients at the Internal Medicine outpatient of Al-Ihsan Hospital Bandung. The results of this study obtained a direct effect of service quality on patient satisfaction (p-value = 0.001), there is a direct effect of patient satisfaction on patient loyalty (p-value = 0.001), there is a direct effect of service quality on patient loyalty (p-value = 0.001) , and there is an indirect effect of service quality on patient loyalty intervening by patient satisfaction, it is known that t-count (3.496) > t-table (1.988), with an indirect effect of 23.8% and a direct effect of 59.0%. So that when service quality increases, patient loyalty will increase, either directly or mediated by patient satisfaction, and it can be interpreted that patient satisfaction partially mediates service quality to patient loyalty.*

***Keywords***: *Loyalty; Satisfaction; Service Quality*

## INTRODUCTION

Hospital is a health service institution that provides complete individual health services and provides inpatient, outpatient, and emergency services. Hospitals must provide safe, quality, anti-discrimination, and effective health services by prioritizing the interests of patients and following hospital service standards. (Government Regulation no. 47 of 2021). By hospital service standards based on Law No. 44 of 2009 concerning Hospitals, namely in carrying out health services to achieve the highest degree of public health, hospitals must provide quality health services by prioritizing the interests of patients. Hospitals play an important role in the health care system and are health care institutions that have an organized staff of medical professionals, and inpatient facilities, to provide medical, nursing, and related services 24 hours per day, seven days per week, and provide a complete range of health services to society, both curative and preventive. Good health services provide effective, safe, and high-quality services to those who need them, supported by adequate resources. (World Health Organization, 2015)

Hospital service quality can be seen in terms of influential aspects, including clinical aspects, efficiency and effectiveness aspects, patient safety aspects, and patient satisfaction aspects. A service is said to be good by the patient, determined by the fact whether the service provided can meet the patient's needs, using the patient's perception of the service received, namely satisfactory or disappointing, and including the length of time of service (Supartiningsih, 2017).

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Patient satisfaction is the patient's psychological state involving their positive or negative feelings or attitudes towards their experience and some specific aspects of the service encounter. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. Of course, this will have an impact on time and efficiency. (Chang, Tseng, and Woodside, 2013; Prakash, 2009)

Patients are one indicator of the quality of service we provide and patient satisfaction is an asset to getting more patients and getting loyal patients. Loyal patients will reuse the same health services when they need them again. Even loyal patients will invite other people to use the same healthcare facilities. (Zhou et al., 2017)

Health services at the hospital are greatly influenced by the professionals in it so that patients have a desire for repeat visits. Patients who understand their rights, then they want safe and satisfying services. Then the patient also has the right to choose, so the quality of service is one of the reasons for choosing a particular hospital. High and low visits are the result of interaction between service providers and recipients, and customer satisfaction is a determining factor for repeated use of services. (Asdawati, A. Indahwaty Sidin, 2014). According to research conducted by Atika Fattah in 2016 in Makassar, there is a significant relationship between service quality, namely reliability, responsiveness, assurance, and empathy with a P value <0. 05 on patient loyalty. (Fattah, 2016). M Arab in Iran 2012 conducted a study on the effects of service quality, in this study, it was found that service quality has a significant effect which can make patients interested in seeking treatment. (Arab et al., 2012). Similar research was conducted by Ritna Rahmawati in Surakarta in 2016, in this study, the results showed that service quality had a positive and significant effect on patient satisfaction. (Goddess, 2017)

This study aims to determine the effect of service quality on internal medicine outpatient loyalty with satisfaction as an intervening factor (a case study at Al-Ihsan Hospital in Bandung). This research is expected to be an input to increase patient loyalty, especially for the Hospital.

## METHOD

This research is a cross-sectional study that uses the path analysis method to verify this research. The research was conducted in June 2022 at Al-Ihsan Hospital, which is located on Jl. Kiastramanggala, Baleendah, Bandung. The population in this study were outpatients at the internal medicine polyclinic at Al-Ihsan Hospital, then the sample was calculated using the Lemeshow formula and the results obtained were 88 samples.

The sampling technique used a simple random sampling technique, with the inclusion criteria of patients who were willing to become respondents, patients who had at least visited more than once, and BPJS PBI and NPBI patients. The exclusion criteria were that the patient was not present at the time of sampling, the patient was uncooperative, and was a general patient.

The research instrument used a questionnaire consisting of 50 statements. Each statement uses an assessment with a Likert scale of 1-4, where 1 = strongly disagree/very unfavorable, 2 = disagree/not good, 3 = agree/good, and 4 = strongly agree/very good.

The data obtained will be processed using Microsoft Excel, and the data will be grouped to see the characteristics of the respondents and to evaluate research variables based on indicators. In the Likert scale (ordinal data) it is converted to an interval scale using the Method of Successive Interval (MSI). Then the data is subjected to classical assumption tests, namely the normality test, multicollinearity test, and heteroscedasticity test. If the data meets the requirements of the Classical Assumption, then it is continued with testing with SPSS to answer the research hypothesis and analyzed with the path analysis method.

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## RESULTS AND DISCUSSION

**Table 1**
**Characteristics of Respondents**

| Indicator | Total | Percentage (%) |
|---|---|---|
| Age | | |
| • ≤ 30 years | 11 | 12.5% |
| • 31 - 40 years | 12 | 13.6% |
| • 41 - 50 years | 15 | 17.0% |
| • 51 - 60 years | 22 | 25.0% |
| • >60 years | 28 | 31.8% |
| Gender | | |
| • Female | 59 | 33% |
| • Male | 29 | 67% |
| Frequency of visits | | |
| • 1 | 0 | 0% |
| • 2 | 11 | 12,5% |
| • 3 | 45 | 51,1% |
| • ≥4 | 32 | 36,4% |

The characteristics of the respondents can be seen in Table 1. In this study, the majority of patients aged >60 years were 31.8%. 33% female respondents and 67% male respondents. The number of visits to respondents 1 time (0%), 2 times (12.5%), 3 times (51.1%), and 4 times (36.4%).

**Table 2**
**Service Quality**

| Dimension | Total Score Actual | Total Score Maximal | Percentage | Category |
|---|---|---|---|---|
| *Tangible* | 2.579 | 3.168 | 81,41 | Very well |
| *Reliability* | 839 | 1.056 | 79,45 | Good |
| *Responsiveness* | 1.038 | 1.408 | 73,72 | Good |
| *Assurance* | 1.929 | 2.464 | 78,28 | Good |
| *Empathy* | 1.296 | 1.760 | 73,64 | Good |
| **Service Quality** | **7.681** | **9.856** | **77,93** | **Good** |

Table 2. describes the respondents' responses regarding service quality. Based on the processing results presented in the table above, it can be seen that the tangible dimension has a higher result, namely 81.41%, while the empathy dimension has the lowest percentage, namely 73.64% and the total score for service quality is 7,681 with a percentage of 77.93 %.

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**Table 3**
**Patient Satisfaction**

| Dimension | Total Score Actual | Total Score Maximal | Percentage | Category |
|---|---|---|---|---|
| Code of Ethics | 1.417 | 1.760 | 80.51% | High |
| Service | 1.390 | 1.760 | 78.97% | High |
| **Patient Satisfaction** | **2.807** | **3.520** | **79.74%** | **High** |

Table 3. describes the respondents' responses regarding patient satisfaction which consists of two dimensions, namely the code of ethics dimension and the service dimension. Based on the processing results presented in the table above, it can be seen that the code of ethics dimension has a higher percentage of 80.51% compared to the health service dimension of 78.97% and the total score for patient satisfaction is 2,807 with a percentage of 79.74%.

**Table 4**
**Patient Loyalty**

| Dimension | Total Score Actual | Total score maximal | Percentage | Category |
|---|---|---|---|---|
| Action Behavior | 545 | 704 | 77.41% | High |
| Likeness Measurement | 565 | 704 | 80.25 % | High |
| Commitment | 509 | 704 | 72.30% | High |
| Say Positive | 562 | 704 | 79.82% | High |
| Recommendation | 549 | 704 | 77.98% | High |
| Repeat purchase | 459 | 704 | 65.19% | High |
| **Patient Loyalty** | **3.189** | **4.224** | **75.49%** | **High** |

Table 4. describes the respondents' responses regarding patient loyalty. Based on the processing results presented in the table above, it can be seen that the preference measurement dimension has the highest percentage, namely 80.25%, and the repurchase dimension has the lowest percentage, namely 65.19% and the total score for the code of ethics dimension is 3,189 with a percentage of 75.49%.

**Table 5**
**The Effect of Service Quality on Patient Satisfaction**

| Variable | Path Coefficient | $t_{count}$ | P-value | $R^2$ |
|---|---|---|---|---|
| **Service Quality (X)** | 0.751 | 10.549 | 0.001 | 0.564 |

Sub Structure 1:
Patient Satisfaction = 0,419*X ……(1)

Based on the recapitulation table on sub-structure 1, a p-value of 0.001 is obtained so that the p-value < α = 0.05. This means that H01 is rejected and Ha1 is accepted, so there is a significant direct effect between the quality of service on patient satisfaction. Thus the hypothesis which states that there is a significant direct effect between service quality on patient satisfaction is acceptable (Hypothesis 1 is accepted). Figure 1 sub-structure model is as follows.

 

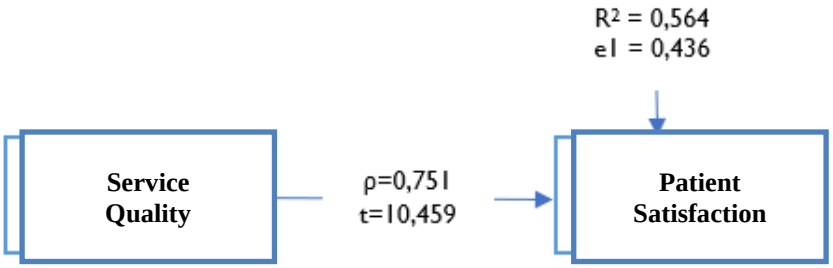


**Figure 1**
**Sub Structure 1**

Quality is a form of attitude related to patient satisfaction, which is the result of a comparison between expectations and actual performance. Satisfaction itself has a meaning where a person's feelings are satisfied or vice versa after comparing reality with the expectations received from a service.

The calculation results above show that service quality has a positive and significant direct effect on satisfaction. This is in line with research conducted by Ni Luh Desiyanti (2018), Service quality has a positive and significant effect on customer satisfaction, which means that the better the quality of service provided, the more customer satisfaction will increase. Likewise, the worse the quality of service provided, the lower customer satisfaction will be. In addition, it is reinforced by previous research conducted by Wahyuningsih (2010), stating that the quality of a person's service greatly influences patient satisfaction. If a person's service quality is high, he will be able to carry out a lot of work to create patient satisfaction.

**Table 6**
**The Effect of Service Quality on Patient Loyalty**

| | | | ρ | $t_{count}$ | p-value | Lable |
|---|---|---|---|---|---|---|
| **Service Quality** | → | Patient Loyalty | 0.590 | 6.911 | 0.001 | Significant |

Based on Table 6, a p-value of 0.001 is obtained so that the p-value <α = 0.05. This means that H02 is rejected and Ha2 is accepted, so there is a significant direct effect between service quality and patient loyalty. Thus the hypothesis which states that there is a significant direct effect between service quality and patient loyalty is acceptable (Hypothesis 2 is accepted).

The calculation results show that service quality has a positive and significant direct effect on patient loyalty. This research is by research conducted by S. Shabbir in 2020 in Pakistan, this research was carried out by direct and random distribution of questionnaires to customers. In this study, service quality has a positive impact on brand loyalty because people who get better service quality will be loyal to a brand. The same research was also conducted by M.Arab in 2012 in Tehran, with a total of 943 respondents from eight hospitals, by distributing questionnaires containing 24 items regarding service quality and three items regarding customer loyalty. In this study, there is a relationship between service quality and patient loyalty, this proves the importance of service quality improvement strategies to attract and retain patients and expand market share.

 

**Table 7**
**The Effect of Patient Satisfaction on Patient Loyalty**

| | | | ρ | $t_{count}$ | p-value | Lable |
|---|---|---|---|---|---|---|
| **Patient Satisfaction** | → | Patient Loyalty | 0.317 | 3.705 | 0.001 | Significant |

Based on Table 7, a p-value of 0.001 is obtained so that the p-value < α = 0.05. This means that H03 is rejected and Ha3 is accepted, so there is a significant direct effect between patient satisfaction and patient loyalty. Thus the hypothesis which states that there is a significant direct effect between patient satisfaction on patient loyalty can be accepted (Hypothesis 3 is accepted). Figure 2 sub-structure model is as follows.

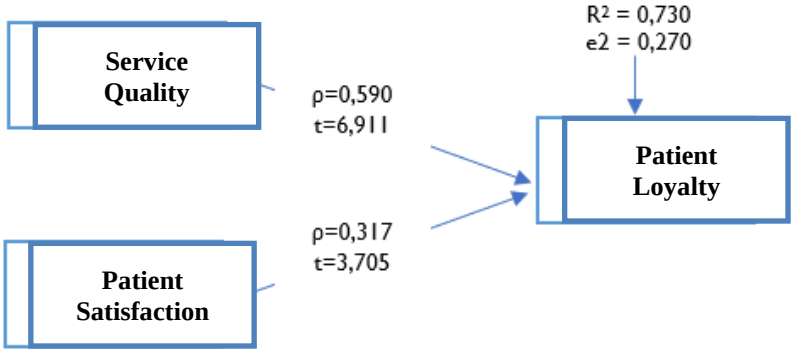


**Figure 2**
**Sub Structure 2**

Patient satisfaction has a positive and significant direct effect on patient loyalty from the results of the calculations performed. In line with previous research by R. Kondasani in 2015 in India, distributing questionnaires to 475 patients in hospitals from five hospitals in India. The results showed that there was a high positive and significant correlation between patient satisfaction and patient loyalty. This study shows that patients who are satisfied with the service indicate that patients feel their decision was right by choosing that hospital, which leads to patient loyalty. A similar study was conducted by F. Setyawan in 2020 in Malang. This research was carried out by filling out a questionnaire on 470 respondents who were taken randomly. The results of his research show a strong correlation between patient satisfaction and patient loyalty. Patient loyalty tends to continue as long as they get better service compared to other healthcare providers. Therefore, further steps need to be taken to enhance patient-centered principles in healthcare.

**Table 8**
**Sobel Test**

| Input: | | Test statistic: | *p*-value: |
|---|---|---|---|
| $t_a$ 10.549 | Sobel test: | 3.49566544 | 0.00047288 |
| $t_b$ 3.705 | Aroian test: | 3.48176705 | 0.00049812 |
| | Goodman test: | 3.50973161 | 0.00044856 |
| | Reset all | Calculate | |

 

Based on the calculation results, the t-value for the mediation effect test is 3.496. If α = 0.05 and df = 88-1-1 then t table = 1.988. From the calculation above it can be seen that t count (3.496) is greater than t (1.988) with a significance level of 0.05, it can be explained that patient satisfaction can mediate the relationship between service quality and patient loyalty. This type of mediation is partial mediation, this is because whether there is a patient satisfaction variable or not, the quality of service has a significant influence on patient loyalty. However, based on the calculated t value, the indirect effect is smaller than the direct effect, because the calculated t value of service quality on patient loyalty is directly greater than through patient satisfaction. So thus hypothesis 4 can be accepted.
So structurally the overall path analysis model can be described in the following figure.

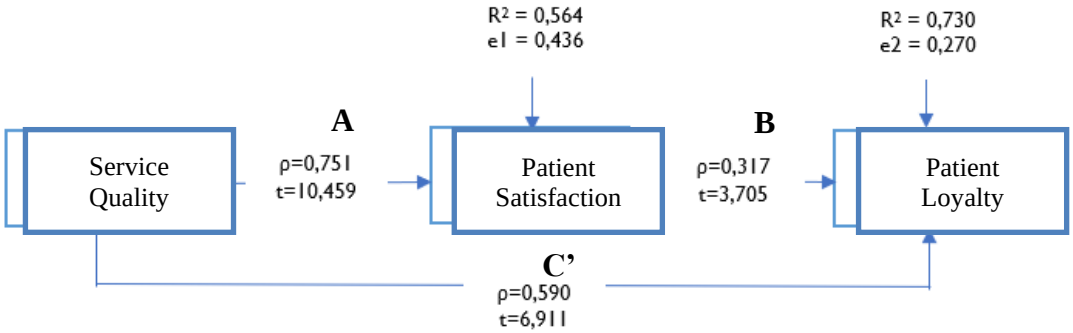


**Figure 3**
**Path Analysis Model**

Information:
A : The direct effect of service quality on patient satisfaction
B : The direct effect of patient satisfaction on patient loyalty
C': The direct effect of service quality on patient loyalty

In this path analysis model, the direct and indirect effects can be calculated with the following results.

**Table 9**
**The Direct Effect and Indirect Effect**

| Variable | Path Coefficient | Direct Effect | Indirect Effect with Mediation |
|---|---|---|---|
| **Service Quality** | 0.590 | 0.590 = 59.0% | 0.751 x 0.317 =0.238 = 23,8% |

Based on the calculation results, it can be seen that the direct effect of service quality on patient loyalty is 0.590 (59.0%). While the indirect effect through patient satisfaction is 0.751 x 0.317 = 0.238 (23.8%).

 

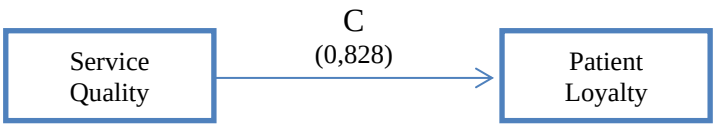


**Figure 4**
**Total Effect**

From the picture above it can be seen that the Total Effect (C) is equal to 0.828, the sum of the direct and indirect effects of service quality on patient loyalty. From the results above, we can calculate the Variance Accounted For (VAF). VAF serves to test the effect of mediation, where if the result is less than 20% it means it does not have a mediating effect, 20-80% has a partial mediation effect, and more than 80% has a full mediation effect (Preacher and Hayes, 2008).

$$\text{VAF} = \frac{indirect\ effect}{total\ effect} = \frac{0{,}238}{0{,}828} = 0{,}287$$

The results of the VAF calculation above obtained 0.287 which, if interpreted, means that the mediating effect of this study is that there is a partial mediation effect. Partial mediation in this study explains that there is an effect between service quality on patient loyalty either directly or by intervening with patient satisfaction.

The results obtained in the research conducted, there is a significant effect of service quality on patient loyalty through patient satisfaction. This research is in line with previous research conducted by S. Shabbir, et al in 2020 in Pakistan, the results showed that service quality had a positive impact on customer loyalty. Customers who get better service quality can increase customer satisfaction and have the impact that customers will be loyal to a brand or company, in which customer satisfaction acts as a mediator between service quality and customer loyalty. Similar research was conducted by Chang Eun Kim in 2017, in South Korea. The research was conducted by interviewing one-by-one respondents, totaling 728 respondents from 15 hospitals in South Korea. The results of this study showed that service quality had a significant but indirect effect on patient repeat visit intentions, with satisfaction as a mediating factor. Improved service quality can increase customer satisfaction, and can promote long-term customer relationships.

## CONCLUSION

The results of this study can be concluded that patient satisfaction can partially mediate service quality on patient loyalty. In other words, service quality influences patient loyalty either directly or patient satisfaction as an intervention. There needs to be further research conducted in every part of the Al-Ihsan Hospital Polyclinic to be able to evaluate and improve as a whole. Other research is expected to use a larger sample size so that it can be generalized more. And it is hoped that this can be done in several hospitals to compare the effect of patient quality on patient loyalty with patient satisfaction as an intervening factor in different hospitals.

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