The Influence of Medical Service Quality on Patient Satisfaction and Its Impact on Patient Loyalty

Abul A’la Al Maududi¹, Suherman Jaksa²
¹Faculty of Public Health, Universitas Muhammadiyah Jakarta, Indonesia, Email: abul.alaal@umj.ac.id
²Faculty of Public Health, Universitas Muhammadiyah Jakarta, Indonesia, Email: suherman@umj.ac.id

*Corresponding Author: abul.alaal@umj.ac.id¹

Abstract: The purpose of this study was to determine and analyze: (1) Service Quality (2) Patient Satisfaction; (3) Patient Loyalty; (4) the effect of Service Quality on Patient Satisfaction; (5) the effect of Service Quality on Patient Loyalty; and (6) the magnitude of the effect of Patient Satisfaction on Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency. The research methods used in this study were descriptive survey and explanatory survey, the unit of analysis in this study were staff in the General Clinic of Puri Asih Hospital, Karawang Regency with a population of 30 people. The type of investigation is causality, and the time horizon in this study is cross-sectional. Based on the results of research and discussion, it is obtained that the Quality of Service provided is inadequate, Patient Satisfaction is considered quite satisfied, Patient Loyalty is considered quite high, Service Quality affects Patient Satisfaction, Service Quality affects Patient Loyalty and Patient Satisfaction affects Patient Loyalty, between Service Quality and Patient Loyalty satisfaction that affects Patient Loyalty, it turns out that Service Quality has a dominant influence. Since Service Quality has a dominant influence on Patient Loyalty rather than Patient Satisfaction, it is recommended to create a pleasant work atmosphere, so that they are able to work more professionally.

Keyword: Service Quality, Patient Satisfaction, Patient Loyalty

INTRODUCTION

Health has become an important part of society because with maximum health, a person will be able to carry out their activities properly. Good public health will create a peaceful state of life. A healthy body is a desire of everyone so that in an effort to realize a healthy condition, several things must be done, one of which is by organizing health services for the community. Efforts that must be made by the government are hospitals.
Hospitals are one of the health facilities that can provide health services to the community in order to improve the quality of public health. The health care system can be improved through clinical pathways, services, including patient perspectives such as how good the health care services they need (Utama, 2003).

Quality health services are health services that can satisfy every service user according to the average level of satisfaction of the population and its implementation in accordance with the code of ethics and service standards that have been determined (Azwar, 1996).

Puri Asih Hospital, Karawang Regency as one of the health service providers is required to always improve the quality of its services. To be able to improve service quality, it must first be known whether the services that have been provided to patients / customers so far have met the expectations of patients / customers or not.

Based on the researcher's initial survey, it is known that patient hospitalizations and average admissions per month from January 2019 to December 2020, there was a decrease in patient visits at the general clinic of Puri Asih Hospital, Karawang Regency. However, basically it is seen that the decline in patient visits from January 2020 to December 2011. The types of patients in the hospital, the following types of patients experienced fluctuations such as: Contractor employee patients who decreased by 12.92%, Pensioners decreased by 2.35%, Employees of Puri Asih Hospital, Karawang Regency decreased by 42.8%, Health insurance patients (PIII Guarantee) increased by 7.67%, Patients with cash (PIII Cash) decreased by 9.86%.

Then, patient visits from January 2021 to December 2021 have not changed that there has been a decrease in patient visits in the general clinic from the types of patients in the hospital, the following types of patients experience fluctuations such as: Contractor employee patients who experienced a decrease of 5.91%, Pensioners experienced an increase of 6.13%, Employees of Puri Asih Hospital Karawang Regency experienced an increase of 6.13% Health insurance patients (PIII Guarantee) experienced an increase of 7.48%, Patients have cash (PIII Cash) decreased by 17.2% .

METHODS

The methods used in this research are descriptive and verification methods. Descriptive research is research that aims to obtain a description of the characteristics of the variable perception of service quality on patient satisfaction and patient loyalty. The nature of verification research basically wants to test the truth of a hypothesis carried out through data collection in the field, where in this study will examine the effect of service quality on patient satisfaction and its implications for patient loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency.

The type of investigation is causal, because the causal relationship between the independent variable and the dependent variable will be tested. The unit of analysis in this study is an individual, namely patients of the General Clinic of Puri Asih Hospital, Karawang Regency. This research is included in the cross-sectional category, namely information from respondents collected directly at the object of research, with the aim of being able to estimate the respondent's opinion on the object of research. The population in this study were 200 patients of the General Clinic of Puri Asih Hospital, Karawang Regency. Meanwhile, the method of determining the respondents used in this study is probability sampling, namely sampling which provides equal opportunities for each element (member) of the population to be selected as a sample member. However, because the number of patients in this study the population size is relatively small, so to maintain the validity and reliability of the measurements in this study were taken by census. In this case, the patients of the General Clinic of Puri Asih Hospital, Karawang Regency were (N) 30 people.
Analysis Design and Hypothesis Testing

The processing of data collected from the questionnaire interviews can be grouped into 3 (three) steps, namely: preparation, tabulation, and application of data to the research approach. The analysis used consists of two types, namely: (1) descriptive analysis, especially for qualitative variables and (2) quantitative analysis, in the form of hypothetical testing using statistical tests. Quantitative analysis is emphasized to reveal the behavior of research variables, while descriptive / qualitative analysis is used to determine the behavior of causal factors. By using a combination of these analytical methods, comprehensive generalizations can be obtained.

As designed in the operationalization of variables, the values of ordinal scale data variables. By using closed-end questions, each item is ranked with five alternative answers. The respondent's answer choice is the answer score value, so the variable value is obtained from the total answer score of each item.

To obtain data from qualitative variables, each variable is first described into sub-variables and each sub-variable is operationalized into indicators. Each indicator is measured by the size of the answer rating on an ordinal scale. The path analysis technique requires data that has a measurement level of at least interval. Therefore, through the method of successive intervals, data transformation is carried out.

RESULT AND DISCUSSION

Quality of Service of General Clinic of Puri Asih Hospital, Karawang Regency

In general, the quality of service at the General Clinic of Puri Asih Hospital, Karawang Regency can be seen in table 1 below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Doctors/nurses are always ready to respond to patient requests</td>
<td>72</td>
<td>Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>Providing a sense of security, friendliness and courtesy from medical personnel is very high</td>
<td>75</td>
<td>Undecided</td>
</tr>
<tr>
<td>3.</td>
<td>Doctor/nurse concern for patient needs is very high</td>
<td>58</td>
<td>Disagree</td>
</tr>
<tr>
<td>4.</td>
<td>Q&amp;A communication between doctors/nurses when serving patients is very good</td>
<td>71</td>
<td>Undecided</td>
</tr>
<tr>
<td>5.</td>
<td>Doctor/nurse responsiveness is very good</td>
<td>72</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>348</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average Score</td>
<td>69.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: Recap of SPSS Processing Results, 12.0

Based on table 1, it shows that the quality of service according to patients of the General Clinic of Puri Asih Hospital, Karawang Regency is relatively low. This means that there are some patients who still feel comfortable and enjoy using services from other hospitals.

Patient Satisfaction at the General Clinic of Puri Asih Hospital, Karawang Regency

In general, Patient Satisfaction of General Clinic Patients of Puri Asih Hospital, Karawang Regency can be seen in table 2 below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>348</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average Score</td>
<td>69.6</td>
<td></td>
</tr>
</tbody>
</table>
1. The level of service is in line with my expectations as a patient 109 Agree

2. Level of service that does not disappoint me as a patient 113 Agree

3. Level of service that does not break promises to me as a patient 97 Undecided

4. The level of responsiveness of doctors/nurses in handling patients is very high 93 Undecided

Total 412
Average Score 103

Source: Recap of SPSS Processing Results,

Based on table 2, it shows that Patient Satisfaction of Patients in the General Clinic of Puri Asih Hospital, Karawang Regency is able to increase Patient Loyalty.

**Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency**

In general, the Patient Loyalty of the General Clinic of Puri Asih Hospital, Karawang Regency can be seen in table 3 below.

**Table 3. Summary of Patient Loyalty of General Clinic of Puri Asih Hospital, Karawang Regency, 2022 (n=30)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I always come to Puri Asih Karawang Hospital if I am sick or need treatment.</td>
<td>94</td>
<td>Undecided</td>
</tr>
<tr>
<td>2</td>
<td>I don't care about the various news about Puri Asih Karawang Hospital because I already trust and care about it. convenient</td>
<td>91</td>
<td>Undecided</td>
</tr>
<tr>
<td>3</td>
<td>I always recommend Puri Asih Karawang Hospital to all my colleagues and family.</td>
<td>121</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>306</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average Score</td>
<td>102</td>
<td></td>
</tr>
</tbody>
</table>

Source: Recap of SPSS Processing Results

Based on table 3 shows that Patient Loyalty of the General Clinic of Puri Asih Hospital, Karawang Regency.

**The Effect of Service Quality on Patient Satisfaction at the General Clinic of Puri Asih Hospital, Karawang Regency**

To reveal the effect of a variable or set of variables on other variables, *Pearson Correlation Analysis* can be used, where the statistical test to be used is *path* analysis, where the path coefficient is basically a correlation coefficient. To find out whether Service Quality (X) affects Patient Satisfaction (Y), it was carried out using *Pearson Correlation* analysis and the software used was SPSS release 12.0. The steps for calculating the *Pearson Correlation* are as follows:

\[
P_{YXi} = \sum_{j=1}^{k} \frac{O_{jyx}}{I} = 1.2
\]

And the overall effect of X to Y
\[ R^2 = \sum_{i=1}^{k} pr \]

while the path coefficient of other variables outside variable X is determined through:

\[ p_{Yi} = \frac{1 - r_{YX2}}{1 - r_{YX1X2}} \]

meaning that the effect of variable X on variable Y is 0.373 or 37.3%, and the remaining 0.627 or 62.7% is influenced by other variables not included in the study.

Test statistics for each hypothesis

\[ t_{0i} \]

Reject \( H_0 \), if \( t_{0i} > t_{1-\alpha/(n-k-1)} \)

By using the t distribution table obtained: (SPSS results according to the attachment)

\[ t_{0.95(30-2-1)} = t_{\text{table}} = 1.70 \]

<table>
<thead>
<tr>
<th>Table 4. Hypothesis testing X against Y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation Coefficient</strong></td>
</tr>
<tr>
<td>PXY</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

\[ Source: \text{calculation result} \]

From the above tests, the complete causal relationship diagram of variable X to Y is as follows:

\[ R^2_{yx} = 0.373 \]

\[ t_{yx} = 3.982 \]

\[ \varepsilon = 0.627 \]

\[ Figure 1 \text{Diagram of the causal relationship between Service Quality (X) and Patient Satisfaction (Y)} \]
From the structural picture of the relationship between variables with the values of the structural parameters above, the effect of the causal variables to the variables, the effect of Service Quality on Patient Patient Satisfaction at the General Clinic of Puri Asih Hospital, Karawang Regency is:

<table>
<thead>
<tr>
<th>Description</th>
<th>Influence</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of X to Y</td>
<td>0.373</td>
<td>37.3</td>
</tr>
<tr>
<td>Other Influences Beyond X</td>
<td>0.627</td>
<td>62.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistical Processing Results SPSS Program

From the test results, it can be seen that Service Quality has an effect on Patient Satisfaction, which is 37.3% and other influences are 62.7%, where the lower the Patient Satisfaction, the Patient will be satisfied.

The Effect of Service Quality on Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency

To reveal the effect of a variable or set of variables on other variables, Pearson Correlation Analysis can be used, where the statistical test to be used is path analysis, where the path coefficient is basically a correlation coefficient. To find out whether Service Quality (X) affects Patient Loyalty (Y), it is done using Pearson Correlation analysis and the software used is SPSS release 12.0. The steps for calculating the Pearson Correlation are as follows: meaning that the effect of variable X on variable Z is 0.444 or 44.4%, and the remaining 0.556 or 55.6% is influenced by other variables not included in the study.

Test statistics for each hypothesis
Reject \( H_0 \), if \( t_0 \) > \( t_{1-\alpha} (n-k-1) \)

By using the t distribution table obtained: (SPSS results according to the attachment)

<table>
<thead>
<tr>
<th>Pearson Correlation Coefficient</th>
<th>( t_{thitung} )</th>
<th>( t_{table} )</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PXZ</td>
<td>0.428</td>
<td>3.554</td>
<td>Ho reject</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.70</td>
<td>There is an influence Service</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quality on Patient Loyalty</td>
</tr>
</tbody>
</table>

Source: calculation result

From the above tests, the complete causal relationship diagram of variable X to Z is as follows:
From the structural picture of the relationship between variables with the values of the structural parameters above, the effect of the causal variables to the variables, the effect of Service Quality on Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency is:

### Table 7. Influence of Variable X to Z and Influence Beyond Variable X

<table>
<thead>
<tr>
<th>Description</th>
<th>Influence</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of X to Z</td>
<td>0.444</td>
<td>44.4</td>
</tr>
<tr>
<td>Other Influences Beyond X</td>
<td>0.556</td>
<td>55.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistical Processing Results SPSS Program

From the test results, it can be seen that Service Quality has an effect on Patient Loyalty, which is 44.4% and other influences are 55.6%, meaning that the lower the Service Quality, the more Patient Loyalty will increase, because Service Quality has a very significant effect on Patient Loyalty, so the contribution of Service Quality is very meaningful.

### The Effect of Patient Satisfaction on Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency

To reveal the effect of a variable or set of variables on other variables, Pearson Correlation Analysis can be used, where the statistical test to be used is path analysis, where the path coefficient is basically a correlation coefficient. To find out whether satisfaction (Y) affects Patient Loyalty (Z), it is done using Pearson Correlation analysis and the software used is SPSS release 12.0. The steps for calculating the Pearson Correlation are as follows:

\[
P_{YX} = \frac{1}{k} \sum_{i=1}^{k} r_{yx} = 0.428; \quad t_{yx} = 3.554
\]

\[\varepsilon = 0.556\]

\[R_{yx}^2 = 0.444\]

**Figure 2 Diagram of the causal relationship between Service Quality (X) and Patient Loyalty (Z)**

The effect of Service Quality on Patient Loyalty can be seen in the Pearson Correlation calculation, where the path coefficient is 0.428 with a significance level of 0.05, meaning that Service Quality has a very significant effect on Patient Loyalty and the contribution of Service Quality is very meaningful.
And the overall effect of Y to Z

\[ R^2_{YX_i} = 0.666 \]

while the path coefficient of other variables outside the Y variable is determined through:

\[ p_{Z_i|Y} = \frac{1}{1 - R^2_{YX_i}} \]

meaning that the effect of variable Y on variable Z is 0.866 or 66.6%, and the remaining 0.334 or 33.4% is influenced by other variables not included in the study.

Test statistics for each hypothesis

\[ t_{oi} = \sqrt{\frac{(1 - R^{2}_{YX_i}) \cdot Cr_{i}}{\alpha}} \]

, \( i = 1,2,3 \) (SPSS output see attachment)

Reject \( H_0 \) if \( t_{oi} > t_{1-\alpha (n-k-1)} \)

By using the t distribution table obtained: (SPSS results according to the attachment) \( t_{0.95(30-2-1)} = t_{table} = 1.70 \)

<p>| Table 8. Hypothesis testing Y against Z |</p>
<table>
<thead>
<tr>
<th>Pearson Correlation Coefficient</th>
<th>( t_{hitting} )</th>
<th>( t_{table} )</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>PYZ</td>
<td>0.344</td>
<td>2.443</td>
<td>1.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ho reject</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>There is a positive influence of Patient</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Satisfaction on performance</td>
</tr>
</tbody>
</table>

Source: calculation result

From the above tests, the complete causal relationship diagram of variable Y to Z is as follows:

\[ R^2_{YX_i} = 0.666 \]

\[ P_{YX} = 0.344; t_{YX} = 2.443 \]

\[ \varepsilon = 0.334 \]
### 1.1. Figure 3 Diagram of the causal relationship between Patient Satisfaction (Y) and Performance (Z)

From the structural picture of the relationship between variables with the values of the structural parameters above, the effect of the causal variables to the variables, the effect of Patient Satisfaction on Patient Loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency is

#### Table 9. Influence of Variable Y to Z and Influence Beyond Variable Y

<table>
<thead>
<tr>
<th>Description</th>
<th>Influence</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of Y to Z</td>
<td>0.666</td>
<td>66.6</td>
</tr>
<tr>
<td>Other Influences Outside Y</td>
<td>0.334</td>
<td>33.4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistical Processing Results SPSS Program

From the test results, it can be seen that Patient Satisfaction affects Patient Loyalty, which is 66.6% and other influences are 33.4%, this is in accordance with the opinion of Siagian (2008: 25), which says that a more precise understanding of Patient Satisfaction must be related to work performance or performance, so that Patient Satisfaction and performance interact with each other. In addition to the above statement, Davis & John W Newstrom (2003: 106) also stated that: "Patient satisfaction is part of life satisfaction", the nature of a person's environment outside of work affects feelings at work. Likewise, because work is an important part of life, patient satisfaction affects one's life satisfaction. The result is in the spill-over effect that occurs between Patient Satisfaction and life satisfaction. Consequently, managers may not only need to monitor direct work but also monitor Patients' attitudes towards other parts of life.

### CONCLUSION

The quality of service provided to patients of the General Clinic of Puri Asih Hospital, Karawang Regency as a whole is in a good position, which means that in general, patients are quite comfortable and conducive when working at the General Clinic of Puri Asih Hospital, Karawang Regency, but there are some patients who still feel a fairly high level of service quality at work.

Patient satisfaction at the General Clinic of the Puri Asih Hospital, Karawang Regency is currently considered quite satisfied, but there are several things that need attention, namely in giving awards that are not in accordance with their competence and the implementation of unfair promotions by not paying attention to achievement and loyalty. Patient loyalty at the General Clinic of Puri Asih Hospital, Karawang Regency is quite high, but there are several things that need to be considered regarding time efficiency and job completion targets for doing a job, this shows that patients at the General Clinic of Puri Asih Hospital, Karawang Regency need to be given a trigger to continue to improve performance. Service Quality affects Satisfaction, so that if the Quality of Service owned to Patients is low, then they will feel satisfied at work. Service Quality affects Patient Loyalty, because low Service Quality will encourage Patients to work harder and ultimately improve work performance. Satisfaction performance affects Patient Loyalty, so that if Patients are satisfied with their work they will try to achieve good work performance / performance.

### REFERENCES

Anireon, 2014. Quality of Medical Services
Febriani Anisa Valentina. (2012). Analysis of Service Quality on Consumer Satisfaction (Study of Outpatient Polyclinic Patients at Dr. Cipto Mangunkusumo Hospital), 1, 1-14.


