

E-issn:2549-9491 P-issn:2337-3350

#### JIM UPB

Jurnal Program Studi Manajemen Universitas Putera Batam Vol. 12 No. 1

# THE INFLUENCE OF SERVICE QUALITY AND FACILITIES ON SATISFACTION AND THEIR IMPACT ON LOYALTY AT NATAR MEDIKA HOSPITAL

#### Hairudin<sup>1)</sup>, Eka Travilta Oktaria<sup>2)</sup>

<sup>1) 2)</sup>Faculty of Business, Mitra Indonesia University Email: khairuddinkusman1@gmail.com<sup>1</sup>, Ekatravilta@umitra.ac.id<sup>2</sup>

#### Abstract

This study aims to examine the effect of patient satisfaction variables in mediating the effect of service quality and health facilities on patient loyalty. Respondents were in patients who were in class 2 and 3. There were 225 questionnaires that could be collected. Based on the PLS-SEM analysis, it can be concluded that the quality of health services directly has a significant positive effect on patient satisfaction; health facilities directly have a significant positive effect on patient satisfaction; the quality of health services directly has a significant positive effect on patient loyalty; patient satisfaction directly has a significant positive effect on patient loyalty; Health facilities directly have a significant positive effect on patient loyalty; patient satisfaction is positively and significantly able to mediate the quality of health services on patient loyalty; and patient satisfaction positively and significantly able to mediate health facilities to patient loyalty at Natar Medika Hospital. Keywords: : Patient Loyalty; Patient Satisfaction; Quality of Health Services; Medical Facility

#### **INTRODUCTION**

Health development, is one of the national efforts in all areas of life that essentially all components of the nation strive to achieve the highest public health. Development in the health sector is expected to realize a high, advanced and prosperous quality of life for Indonesian people, as well as a nation that has competitiveness as stated in the vision and mission of the 2015-2019 national development. The success of health development in the future will include factors such as ease of access to health and continuous improvement in the quality of health services. Access to health services is indicated by an increase in the number, network and quality of health facilities (RI Ministry of Health, 2015).

In PP 12 of 2013 article 30 paragraph 1, reads "Health facilities are required to ensure that participants who are hospitalized get the drugs and medical consumables needed according to medical indications, and paragraph 2, reads "Outpatient health facilities that do not have supporting facilities, obligated to build a network with supporting health facilities to ensure the availability of medicines, consumable medical materials, and necessary supporting examinations". As well as PP 12 of 2013 article 32 paragraph 1, reads "BPJS Health makes payments to first-level health facilities on a pre-effort basis based on capitation of the number of Participants registered at first-level health facilities".

Health is very important for humans. More and more people are increasingly aware of the importance of maintaining a healthy body, maintaining food intake, exercising, and carrying out routine check-ups at the hospital. This also makes public service facilities such as hospitals, health centers, clinics, health centers and others develop rapidly by providing various supporting facilities in the health sector (Susanti et al., 2021).

Services obtained from users of health facility services that are considered competent or in this case satisfactory will be a separate consideration for the community/patients using health

services to assess a health facility and return to the same health facility when they need health facilities. So, nowadays it can be said that the provision of services by health facilities to users of quality health services is very important, apart from the demands of the law, it is also to provide satisfaction and determine the loyalty of patients who use these health services.

In the service business, service quality influences service user decisions. Outstanding service quality has an impact on customer satisfaction. One of the competitive advantages that a company wants to create is to focus on customer satisfaction. If the quality of service received by consumers is as expected, then the quality of service is considered good and satisfactory. If the consumer feels satisfied then he decides to always use the service. The hospital is one example of an institution that markets health services. Hospitals need to increase their progress to show their existence in the field of service because hospitals not only function as social institutions, but also as institutions that seek business profits (Kulsum & Shah, 2017).

Increasingly fierce competition requires hospitals as service providers to always pamper patients by providing the best service. The high quality of hospital services that can exceed the expectations of patients or consumers. Conversely, if the quality of hospital services is not in accordance with patient expectations, then the quality of service gets a low rating for patients or consumers. Patients who are satisfied with the quality of service can lead to comfort and form positive perceptions of hospital services. This condition then makes the hospital get the number one position for patients so that patients have a loyal attitude to be in demand by hospital competitors.

but also Pouragha & Zarei (2016), stated that the phenomena that occur in hospitals that focus on assessing the quality of inpatient services on outpatient satisfaction and service have been ignored. Outpatient care hospital is one part that has the most important role in the health system. The outpatient department is the main source of income for the hospital to attract outpatients to become inpatients. Therefore, the outpatient unit is the link between the patient and the hospital. Thus, the quality of outpatient services makes a significant contribution to the patient's overall impression of the quality of hospital services. In addition, compared to some other hospitals, outpatient departments have faster growth and higher revenue than inpatient department revenues.

Therefore, the outpatient department plays an important role in the profitability of other hospitals. The hospital's ability to provide high quality service to departments is very important for the long-term sustainability of hospital operations. Likewise in previous research Arsanam & Yousapronpaiboon (2014), Marković et al., (2014), and Ozturkcan et al., (2009)in his research said the quality of service has an influence on patient satisfaction Ozturkcan et al., (2009)not only do research on service quality on satisfaction but the results of his research say there is an effect of service quality on loyalty, as researched by (Arab et al., 2012; Kesuma et al., 2013). This means, when a consumer feels the quality of service is in accordance with his expectations or exceeds these expectations, it can lead to satisfaction and loyalty.

In other studies not only measure the quality of health services and facilities on customer satisfaction and loyalty, but others measure or find loyalty based on one's satisfaction. As research conducted by Srivastava (2015) in his research said that there is an effect of satisfaction on loyalty as done Mendoza (2014) in the study said there was an effect of patient satisfaction on loyalty to CP Reyes Hospital, patients were very satisfied with the quality of medical services. In the service business competition, creating customer satisfaction and maintaining consumer needs must be done. In achieving patient satisfaction, the hospital creates several approaches to improve service quality. Besides being an important factor for the prosperity of a company, meeting customer needs increases competitive advantage in business.

In this study, there was a research gap at Natar Medika Hospital, where there was a decrease in the number of inpatients caused by several factors, including: (1) the number of

inpatient rooms at Natar Medika Hospital was still limited, so that if there were patients who wanted to be hospitalized but there are no empty rooms, so the patient is referred to another hospital; (2) if there is an inpatient who dies, other prospective inpatients may not immediately use the room because it must be sterilized and the process lasts for 6 hours; (3) unresponsive administrative services. In previous research, there is literature that examines the effect of service quality on satisfaction, how service quality affects loyalty and how satisfaction affects loyalty.

This research was conducted at Natar Medika Hospital which is a type C hospital so it still has limited facilities and infrastructure to support patient needs. Natar Medika Hospital began to improve the quality of service to achieve and towards type B. The quality of Natar Medika Hospital services included: medical or non-medical personnel carrying out health checks with fast and accurate results, medical or non-medical staff services provided politely and friendly. That is the parameter of service quality that must be achieved to maintain and increase patient loyalty. One of the main ways to maintain patient satisfaction is to consistently provide high quality health services to meet consumer expectations thereby increasing patient loyalty.

Natar Medika Hospital is progressing patient safety to improve service quality. Natar Medika Hospital needs to improve and develop a patient safety system. If the quality of patient safety is high, the quality of service will be excellent. In addition, to minimize patient complaints about service quality by improving the management system at the hospital. Doctors, nurses, administrative staff and other staff improve their performance and discipline as a dedication to their profession. Local governments are expected to provide sufficient budget to support infrastructure and improve the quality of hospital services.

Entering 2023 there will be an increase and decrease in the number of inpatients. From the data obtained by the Natar Medika Hospital, there was a decrease in the number of patients caused by several things related to the quality of service. Researchers made observations and the results found that some patients complained of the slow handling of officers to enter the ward, the number of nurses who performed duties at night was less than the nurses who performed duties in the morning or evening. In addition, there were several patients who complained about the cleanliness of the hospital's facilities. The conclusion from the observations with the statement above is that patients who complain indicate patient dissatisfaction with the quality of services provided at Natar Medika Hospital.

The complexity of customer satisfaction and loyalty as well as its major implications for the running of health services makes it important to know, especially in primary health facilities that have direct contact with the community and those closest to the community (Widodo & Prayoga, 2022). Patient satisfaction with care includes expectations, health facility conditions, environment, communication and information, engagement and engagement, and interpersonal relationships (Sharew et al., 2018), the implication of patient satisfaction is patient loyalty to health facilities. Patients who are dissatisfied with the medical services they receive may decide to move to another hospital that can provide better service.

Understanding of patient satisfaction with the services provided has major implications, patients who report having a good experience tend to feel satisfied (Eriksson & Svedlund, 2007), has a better relationship with his doctor (Gonzalez et al., 2020) and more adherence to post-care instructions (Anhang Price et al., 2014), the market economic system knows that the core of company competition is customer-centered, capturing and creating customer preferences and loyalty to the company's products. The concept of customer loyalty is central to marketing and patient loyalty has the same roots as customer loyalty in the business sector (Toufaily et al., 2013), with this explanation, patients are customers when viewed from the business sector. The difference in patient loyalty is emphasized in the condition of the health product itself, health service products are partial public products that are given to patients who

come to the hospital for treatment, but medical services are different from other industries. The patient is passively treated in the hospital. Subjectively, there is no desire to visit again, thus the medical industry's customer loyalty is very different from other industries.

#### **METHODS**

We conducted a study of inpatients at Natar Medika Hospital, Lampung Indonesia. This study has aspects of service quality, health facilities, patient satisfaction and loyalty. Researchers collected data by distributing questionnaires to second and third inpatients at Natar Medika Hospital, Indonesia. The data analysis method uses the Structural Equation Model (SEM). According to Hair et al., (2012)sample size is the number of samples = number of questionnaires x 5, for each question in the questionnaire is an observable variable, the research questionnaire contains 45 statements, which means it has 45 questionnaires. observed. Thus the number of samples required is  $5 \times 45 = 225$  respondents. Respondents answered questions on the questionnaire as well as the minimum sample size. The people who were the respondents to the questionnaire were inpatients at class two and third class Natar Medika Hospital. We use a Likert measurement scale with a scale of one to five (Azwar, 2012).

The method used is quantitative with a structural equation modeling (SEM) approach. Primary data obtained through survey methods. Data were analyzed using analysis techniques using path analysis with the help of the smartPLS application software. The statistical method used to test the hypothesis in this study is SEM through PLS. This study measures two parts; namely (1) the indirect effect of the quality of health services and facilities on patient loyalty through patient satisfaction variables; (2) the direct effect of the quality of health service and facilities on patient loyalty; (3) the direct effect of the quality of health services and facilities on patient satisfaction.

### **RESULTS AND DISCUSSION**

This study uses SmartPLS 3.0 to test the hypothesis. The relationship between the variables tested in this study is the relationship between the exogenous variables of the quality of health services and health facilities to the endogenous variable, namely patient loyalty through the patient satisfaction intervening variable. The significance test to determine the effect between variables can be seen from the statistical test results as presented in Figure 1.

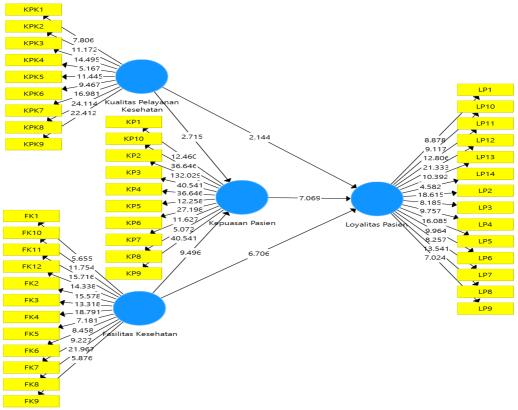


Figure 1. Outer Loading

The minimum criteria that must be met for the hypothesis to be accepted are 1) beta has a positive value, and 2) the t-statistic must be above 1.65251 for the standard error (5% alpha). Based on the output of Figure 1, then the relationship of each variable is presented in Table 1 which displays the results of hypothesis testing (path coefficients).

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Fasilitas Kesehatan -> Kepuasan Pasien	0.692	0.690	0.073	9.496	0.000
Fasilitas Kesehatan -> Loyalitas Pasien	0.474	0.479	0.071	6.706	0.000
Kepuasan Pasien -> Loyalitas Pasien	0.467	0.464	0.066	7.069	0.000
Kualitas Pelayanan Kesehatan -> Kepuasan Pasien	0.219	0.222	0.081	2.715	0.007
Kualitas Pelayanan Kesehatan -> Loyalitas Pasien	0.087	0.086	0.041	2.144	0.033

Source: Results of research data processing

## The direct effect of the quality of health services on patient satisfaction

Based on table 1 and figure 1, the magnitude of the parameter coefficient for the direct variable quality of health services on patient satisfaction is 0.219, which means there is a direct positive effect of quality of health services on patient satisfaction. Or it can be interpreted that the higher the value of the quality of health services, the patient satisfaction will also increase. An increase in one unit of health service quality will increase patient satisfaction by 21.9%. Based on calculations using bootstrap or resampling, where the results of the estimated coefficient test of the quality of health services on patient satisfaction, the bootstrap result is 0.222 with a t count = 2.715 > t table = 1.65251 and a standard deviation of 0.081. So the p value is 0.007 < 0.

#### The direct effect of health facilities on patient satisfaction

Based on table 1 and figure 1, the magnitude of the parameter coefficient for the direct variable of health facilities on patient satisfaction is 0.692, which means that there is a direct positive effect of health facilities on patient satisfaction. Or it can be interpreted that the higher the value of the health facility, the patient satisfaction will also increase. An increase in one unit of health service quality will improve patient facilities by 69.2%. Based on calculations using bootstrap or resampling, where the results of the estimated coefficient test of health facilities on patient satisfaction, the bootstrap result is 0.222 with a t count = 9.496 > t table = 1.65251 and a standard deviation of 0.073. Then the p value is 0.000 < 0.

### The direct effect of the quality of health services on patient loyalty

Based on table 1 and figure 1, the magnitude of the parameter coefficient for the direct variable of health service quality on patient loyalty is 0.087, which means there is a direct positive effect of health service quality on patient loyalty. Or it can be interpreted that the higher the value of the quality of health services, the patient loyalty will also increase. An increase in one unit of health service quality will increase patient loyalty by 8.7%. Based on calculations using bootstrap or resampling, where the results of the estimated coefficient test of the quality of health services on patient loyalty bootstrap results are 0.086 with a t count = 2.144 > t table = 1.65251 and a standard deviation of 0.041. So the p value is 0.033 < 0.

#### The direct effect of patient satisfaction on patient loyalty

Based on table 1 and figure 1, the magnitude of the parameter coefficient for the direct variable patient satisfaction on patient loyalty is 0.467, which means there is a direct positive effect of patient satisfaction on patient loyalty. Or it can be interpreted that the higher the value of patient satisfaction, the patient loyalty will also increase. An increase in one unit of patient satisfaction will increase patient loyalty by 46.7%. Based on calculations using bootstrap or resampling, where the results of the estimated coefficient test of patient satisfaction on patient loyalty bootstrap results are 0.464 with a t count = 7.069 > t table = 1.65251 and a standard deviation of 0.066. Then the p value is 0.000 < 0.

#### The direct effect of health facilities on patient loyalty

Based on table 1 and figure 1, the magnitude of the parameter coefficient for the direct variable of health facilities on patient loyalty is 0.474, which means that there is a direct positive effect of health facilities on patient loyalty. Or it can be interpreted that the higher the value of a health facility, the patient's loyalty will also increase. An increase in one health facility unit will increase patient loyalty by 47.4%. Based on calculations using bootstrap or resampling, where the test results of the estimated coefficient of health facilities on patient loyalty bootstrap results are 0.479 with a t count = 6.706 > t table = 1.65251 and a standard deviation of 0.071. Then the p value is 0.000 < 0.

Table 2. in	direct effect
-------------	---------------

	Original Sampl	Sample Mean	Standard Devia	T Statistics	P Values
Kualitas Pelayanan Kesehatan -> Kepuasan Pasien -> Loyalitas Pasien	0.102	0.102	0.036	2.811	0.005
Fasilitas Kesehatan -> Kepuasan Pasien -> Loyalitas Pasien	0.323	0.322	0.067	4.839	0.000

Source: Results of research data processing

#### Indirect effect of health service quality on patient loyalty through patient satisfaction

Based on table 2, the magnitude of the parameter coefficient for the variable quality of health services on patient loyalty mediated by patient satisfaction is 0.102, which means that

there is a positive influence of health service quality on patient loyalty through patient satisfaction. Or it can be interpreted that the higher the value of the quality of health services, the patient loyalty will also increase. Increasing one unit of health service quality through patient satisfaction will increase patient loyalty by 10.2%. Based on calculations using bootstrap or resampling, where the results of the test for the coefficient of estimation of the quality of health services on patient loyalty through patient satisfaction, the bootstrap results are 0.102 with a t count = 2.811 > t table = 1.65251 and a standard deviation of 0.036.

### The indirect effect of health facilities on patient loyalty through patient satisfaction

Based on table 2, the magnitude of the parameter coefficient for the health facility variable on patient loyalty mediated by patient satisfaction is 0.323, which means that there is a positive influence of health facilities on patient loyalty through patient satisfaction. Or it can be interpreted that the higher the value of a health facility, the patient's loyalty will also increase. Increasing one unit of health facility through patient satisfaction will increase patient loyalty by 32.3%. Based on calculations using bootstrap or resampling, where the results of the estimated coefficient test of health facilities on patient loyalty through patient satisfaction, the bootstrap result is 0.322 with a t count = 4.839 > t table = 1.65251 and a standard deviation of 0.067. Then the p value is 0.000 < 0.

#### Table 4. Total effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Kualitas Pelayanan Kesehatan -> Loyalitas Pasien	0.189	0.188	0.056	3.351	0.001
Fasilitas Kesehatan -> Loyalitas Pasien	0.797	0.801	0.047	16.865	0.000

### Source: Results of research data processing

The results of the direct effects, indirect effects and total effects of this study, it can be concluded that all the variables studied have a significant value and positive influence. So that the proposed hypothesis 1 is accepted. The next analysis process is the Variance Accounted For (VAF) method for the effect of the quality of health services and health facilities on patient loyalty mediated by patient satisfaction. It can be explained that the quality of health services and health facilities has a direct and significant effect on patient loyalty, so that it meets the criteria for proceed to the calculation stage of the VAF value. The mediating effect of the VAF method with criteria; no mediation (0%-19%), partial mediation (20%-80%), and full mediation (81%-100%) namely;

Patient satisfaction mediates the effect of health service quality on patient loyalty.

$$VAF = \frac{pengaruh \ tidak \ langsung}{pengaruh \ total} x100\% = \frac{0.087}{0.189} x100\% = 46.03\%$$

Patient satisfaction mediates the effect of health facilities on patient loyalty.

$$VAF = \frac{pengaruh \ tidak \ langsung}{pengaruh \ total} x100\% = \frac{0.474}{0.797} x100\% = 59.47\%$$

Based on VAF calculations, it shows that the patient satisfaction variable partially mediates the effect of health service quality on patient loyalty with results reaching 46.03%, similarly the patient satisfaction variable mediates partially mediating the effect of health facilities on patient loyalty, meaning that the patient satisfaction variable is not a the only

variable that is able to mediate the effect of the quality of health services and health facilities on patient loyalty, but there are still other variables and this is an opportunity for further research. So in this study, it shows that satisfaction is able to mediate the effect of the quality of health services and health facilities on patient loyalty which proves that the hypothesis is accepted.

### Quality of health services on patient satisfaction

Based on the results of hypothesis testing, there is a positive and significant influence between the quality of health services on patient satisfaction. That is, the higher the quality of health services applied, the better patient satisfaction will be. These findings are certainly in line with research conducted by Kassim & Asiah Abdullah (2010) who argued that lower perceived quality results in higher dissatisfaction, while examining the impact of service quality, one study found that customer satisfaction was influenced by service quality Another study found that customer satisfaction resulted from service quality (Asadpoor & Abolfazli, 2017). If service industries meet customer requirements and expectations, they can achieve high levels of customer satisfaction (Rigopoulou et al., 2008). Zaid et al., (2020) reported that satisfaction and loyalty were positively influenced by the quality of services provided by health care providers. Meanwhile, a study by Jiang & Lu Wang (2006), shows that when it comes to services of value, such as health care, the pleasure of good service is more important than the satisfaction itself. Chahal & Kumari (2010), observing a strong relationship between service quality and customer satisfaction, also consumer perception of quality is an important variable that determines the level of satisfaction. patient loyalty is patient loyalty is a manifestation and continuation of patient satisfaction in using the facilities and services provided by the hospital, as well as to remain a patient of the hospital. Patient loyalty is evidence of patients who are always customers, who have strength and a positive attitude towards the hospital (Fatima et al., 2018).

### Health facilities on patient satisfaction

Based on the results of hypothesis testing, there is a positive and significant effect between health facilities on patient satisfaction. That is, the higher the health facility that is applied, the better patient satisfaction will be. These findings are certainly in line with research conducted by Aji & Soesanto (2011) states that facilities have a positive influence on customer satisfaction. The manager who places the infrastructure, provides the facilities is concluded by Moha & Loindong (2016), Puspita & Santoso (2018), and Setyawati et al., (2018) in his research that is influenced by adequate facilities. Completeness of good infrastructure is very important in creating customer satisfaction (Yunari, 2017). Improving hospital facilities and infrastructure is carried out to prevent the emergence of obstacles in the provision of quality health services. By improving facilities and infrastructure, it is hoped that the hospital will be able to anticipate various technical problems in the field faced by patients in obtaining quality services (Supriyanto, 2012).

## Quality of health services on patient loyalty

Based on the results of hypothesis testing, there is a positive and significant influence between the quality of health services on patient loyalty. That is, the higher the quality of health services applied, the better patient loyalty will be. These findings are certainly in line with research conducted by Gong & Yi (2018), Hadi et al., (2019), Meesala & Paul (2018) which highlights the relevance of service quality and customer loyalty in the business realm. Besides that, Jayawardhena (2010) states that perceptions of service quality stem from individual customer service encounters with service providers, where customers assess quality and develop judgments. Thus, a positive assessment by consumers about service quality can foster feelings of loyalty towards service providers. Patient loyalty is evidence of patients who are always customers, who have strength and a positive attitude towards the hospital (Fatima et al., 2018). Anbori et al., (2010) examines the relationship between the dimensions of service quality and loyalty and shows that the dimensions of empathy and assurance have a strong influence on the patient's intention to return to the hospital. Previous studies found that service quality directly affects patient loyalty (Asadpoor & Abolfazli, 2017; Pratminingsih et al., 2018).

### Patient satisfaction on patient loyalty

Based on the results of hypothesis testing, there is a positive and significant relationship between patient satisfaction and patient loyalty. That is, the higher patient satisfaction is applied, the better patient loyalty will be. These findings are certainly in line with research conducted by Biscaia et al., (2017) which explains that most of the time, customer satisfaction is the main precedent for customer loyalty, and in other words, customer loyalty is considered as a direct result of customer satisfaction. Furthermore, Kamra et al., (2016) noted that customer loyalty increases partly through customer satisfaction as one of the most influential factors. Most studies confirm that satisfied customers indicate a greater likelihood of repurchasing and communicate positively with the organization (Martínez & Rodríguez del Bosque, 2013). Previous studies have shown that satisfaction has a positive and important impact on customer loyalty (Chao et al., 2015; Dagger & O'Brien, 2010). Highly satisfied customers tend to become loyal supporters of the company and spread positive word about how satisfied they are with the company (Lovelock & Patterson, 2015; Rahim, 2017). Customer satisfaction provides two main benefits for the company, namely loyalty, and participation in positive verbal recommendations. Thus, customer satisfaction is an important element for organizations that wish to increase patient loyalty and create better business achievements (Zaid et al., 2020). Patient loyalty is evidence of patients who are always customers, who have strength and a positive attitude towards the hospital (Fatima et al., 2018).

### Health facilities on patient loyalty

Based on the results of hypothesis testing, there is a positive and significant influence between health facilities on patient loyalty. That is, the higher the health facility that is applied, the better patient loyalty will be. These findings are certainly in line with research conducted by Muhtarom et al., (2022), Nanang & Pasharibu (2021), Winata & Prabowo (2022) which states that facilities have a positive influence on customer loyalty. Patient loyalty is evidence of patients who are always customers, who have strength and a positive attitude towards the hospital (Fatima et al., 2018). Modern and new facilities are factors that increase satisfaction, a good relational relationship between patients and doctors causes patients to be loyal to their doctors so that they follow their doctors to their new clinics, when viewed from patient characteristics, research Gray et al., (2021) provides insight into the characteristics of patients with social needs that are not met on the level of satisfaction and loyalty. So in conclusion adequate health facilities can affect the level of patient loyalty significantly.

## Quality of health services on patient loyalty through patient satisfaction

Based on the results of hypothesis testing, the effect of quality of health services on patient loyalty with patient satisfaction as an intervening variable shows a positive and significant relationship. Furthermore, the effect of mediation also shows a significant effect at the 5% significance level. Thus, the indirect effect of the variable quality of health services on patient loyalty through patient satisfaction is accepted. This means that good quality health services will increase patient loyalty. It will be higher if it is supported by high patient satisfaction. The quality of health services can be optimized if it is supported by patient satisfaction activities. If the hospital facilities provided by the manager guarantee the safety and comfort of its users, then of course the patients will trust and use the facility. Thus raising the level of customer loyalty. If consumers have a full desire to buy a product or service, that

is called loyalty. So that facilities are everything that is deliberately provided by service providers to be used and enjoyed by consumers with the aim of making loyal consumers.

This study corroborates research conducted by Pakurár et al., (2019) which states that there is a strong relationship between service quality and customer satisfaction. Kessler & Mylod (2011), investigated how patient satisfaction affects the tendency to return to the hospital, the results showed a significant relationship between satisfaction and loyalty. Chahal & Kumari (2010)explains that service quality leads to patient satisfaction and patient loyalty. Customer satisfaction in the healthcare industry was also found to have a positive effect on patient loyalty (Meesala & Paul, 2018). Fatima et al., (2018) showed that overall, patient satisfaction was a significant mediating variable between perceived service quality and foreign patient loyalty. Likewise with Shahid Iqbal et al., (2018) also found that customer satisfaction acts as a mediation in encouraging patient loyalty through service quality. Patient loyalty is evidence of patients who are always customers, who have strength and a positive attitude towards the hospital (Fatima et al., 2018).

### Health facilities on patient loyalty through patient satisfaction

Based on the results of hypothesis testing, the effect of health facilities on patient loyalty with patient satisfaction as an intervening variable shows a positive and significant relationship. Furthermore, the effect of mediation also shows a significant effect at the 5% significance level. Thus, the indirect effect of health facility variables on patient loyalty through patient satisfaction is accepted. This means that good health facilities will increase patient loyalty. It will be higher if it is supported by high patient satisfaction. Health facilities can be optimized if supported by patient satisfaction activities. The availability of adequate facilities makes customers feel comfortable and satisfied, thereby influencing customers to become loyal, although this is not always the case (Habibarrahman et al., 2022; Nugrahaningsih, 2019; Vebnia et al., 2013; Winata & Prabowo, 2022) their research results show that the facility variable affects loyalty through satisfaction. Based on expert statements/expert opinions and the results of research that has been carried out by previous researchers, so researchers believe that customer satisfaction mediates the effect of facilities on patient loyalty.

## CONCLUSION

This study aims to examine the effect of patient satisfaction variables in mediating the effect of the quality of health services and health facilities on patient loyalty. Respondents are patients at Natar Medika Hospital. Based on the PLS-SEM analysis, it can be concluded that the quality of health services directly has a significant positive effect on patient satisfaction; health facilities directly have a significant positive effect on patient loyalty; patient satisfaction directly has a significant positive effect on patient loyalty; patient satisfaction directly has a significant positive effect on patient loyalty; patient satisfaction directly have a significant positive effect on patient loyalty; have a significant positive effect on patient loyalty; and significantly able to mediate the quality of health services on patient loyalty; and patient satisfaction positively and significantly able to mediate health facilities to patient loyalty at Natar Medika Hospital.

## REFERENCE

- Aji, WK, & Soesanto, H. (2011). Analysis of the effect of service quality, price and facilities on patient satisfaction (study at As Syifa Clinic Patients in Bekasi Regency). Diponegoro University.
- Anbori, A., Ghani, SN, Yadav, H., Daher, AM, & Su, TT (2010). Patient satisfaction and loyalty to the private hospitals in Sana'a, Yemen. International Journal for Quality in Health Care, 22(4), 310–315. https://doi.org/10.1093/intqhc/mzq029
- Anhang Price, R., Elliott, MN, Zaslavsky, AM, Hays, RD, Lehrman, WG, Rybowski, L., Edgman-Levitan, S., & Cleary, PD (2014). Examining the Role of Patient Experience Surveys in Measuring Health Care Quality. Medical Care Research and Review, 71(5), 522–554. https://doi.org/10.1177/1077558714541480
- Arab, M., Tabatabaei, SMG, Rashidian, A., Forushani, AR, & Zarei, E. (2012). The effect of service quality on patient loyalty: a study of private hospitals in Tehran, Iran. Iranian Journal of Public Health, 41(9), 71.
- Arsanam, P., & Yousapronpaiboon, K. (2014). The relationship between service quality and customer satisfaction of pharmacy departments in public hospitals. International Journal of Innovation, Management and Technology, 5(4), 261. http://www.ijimt.org/papers/524-T043.pdf
- Asadpoor, S., & Abolfazli, A. (2017). Archive of SID The Effect of Electronic Service Quality on Customer Satisfaction and Loyalty Saderat Bank's Customers. . . International Journal of Scientific Study, 5(4), 407–411. https://www.sid.ir/FileServer/SE/270e20160427
- Azwar, S. (2012). Preparation of a psychological scale. Yogyakarta: Student Libraries.
- Biscaia, AR, Rosa, MJ, Moura e Sá, P., & Sarrico, CS (2017). Assessing customer satisfaction and loyalty in the retail sector. International Journal of Quality & Reliability Management, 34(9), 1508–1529. https://doi.org/10.1108/IJQRM-03-2015-0039
- Chahal, H., & Kumari, N. (2010). Development of multidimensional scale for healthcare service quality (HCSQ) in Indian context. Journal of Indian Business Research, 2(4), 230–255. https://doi.org/10.1108/17554191011084157
- Chao, R.-F., Wu, T.-C., & Yen, W.-T. (2015). The Influence of Service Quality, Brand Image, and Customer Satisfaction on Customer Loyalty for Private Karaoke Roomsin Taiwan. The Journal of Global Business Management, 11(1), 59–67.
- Crosby, LA, Evans, KR, & Cowles, D. (1990). Relationship Quality in Service Selling: An Interpersonal Influence Perspective. Journal of Marketing, 54(3), 68–81. https://doi.org/10.1177/002224299005400306
- Dagger, TS, & O'Brien, TK (2010). Does experience matter? European Journal of Marketing, 44(9/10), 1528–1552. https://doi.org/10.1108/03090561011062952
- Deng, Z., Lu, Y., Wei, KK, & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. International Journal of Information Management, 30(4), 289–300. https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2009.10.001
- Eriksson, U., & Svedlund, M. (2007). Struggling for confirmation patients' experiences of dissatisfaction with hospital care. Journal of Clinical Nursing, 16(3), 438–446. https://doi.org/https://doi.org/10.1111/j.1365-2702.2005.01544.x
- Fatima, T., Malik, SA, & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty. International Journal of Quality & Reliability Management, 35(6), 1195–1214. https://doi.org/10.1108/IJQRM-02-2017-0031
- Freund, B., & Dorczak, R. (2019). The phenomenon of professional solidarity of nurses and its impact on the management of healthcare organizations. ICERI2019 Proceedings, 8013– 8022.
- Gilligan, C., & Lowe, R. (2018). Marketing and health care organizations. CRC Press.

- Gong, T., & Yi, Y. (2018). The effect of service quality on customer satisfaction, loyalty and happiness in five Asian countries. Psychology & Marketing, 35(6), 427–442. https://doi.org/https://doi.org/10.1002/mar.21096
- Gonzalez, AI, Kortlever, JTP, Rijk, L., Ring, D., Brown, LE, & Reichel, LM (2020). Is there a correlation between the patient-doctor relationship questionnaire and other patient-reported experience measures? Patient Experience Journal, 7(1), 44–50. https://doi.org/https://doi.org/10.35680/2372-0247.1399
- Gray, M., Jones, KG, & Wright, BJ (2021). Patients With Health-Related Social Needs More Likely to Report Poor Clinic Experiences. Journal of Patient Experience, 8, 23743735211008308. https://doi.org/10.1177/23743735211008307
- Habibarrahman, MF, Kusnadi, E., & Fandiyanto, R. (2022). The Influence of Promotions and Facilities on Loyalty Through Intervening Variables of Visitor Satisfaction at the Rengganis Pasir Putih Hotel, Situbondo Regency. Entrepreneurship Student Journal (JME), 1(5), 1017–1028. https://unars.ac.id/ojs/index.php/jme/article/view/2144
- Hadi, NU, Aslam, N., & Gulzar, A. (2019). Sustainable Service Quality and Customer Loyalty: The Role of Customer Satisfaction and Switching Costs in the Pakistan Cellphone Industry. In Sustainability (Vol. 11, Issue 8). https://doi.org/10.3390/su11082408
- Hair, JF, Ringle, CM, & Sarstedt, M. (2012). The Better Approach to Structural Equation Modeling? Long Range Planning.
- Jayawardhena, C. (2010). The impact of service encounter quality in service evaluation: evidence from a business-to-business context. Journal of Business & Industrial Marketing, 25(5), 338–348. https://doi.org/10.1108/08858621011058106
- Jiang, Y., & Lu Wang, C. (2006). The impact of affect on service quality and satisfaction: the moderation of service contexts. Journal of Services Marketing, 20(4), 211–218. https://doi.org/10.1108/08876040610674562
- Juhana, D., Manik, E., Febrinella, C., & Sidhartha, I. (2015). Empirical study on patient satisfaction and patient loyalty in public hospitals in Bandung, Indonesia. International Journal of Applied Business and Economic Research, 13(6), 4305–4326. https://serialsjournals.com/abstract/65564 4305-4326.pdf
- Kamra, V., Singh, H., & Kumar De, K. (2016). Factors affecting patient satisfaction: an exploratory study for quality management in the health-care sector. Total Quality Management & Business Excellence, 27(9–10), 1013–1027. https://doi.org/10.1080/14783363.2015.1057488
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings. Asia Pacific Journal of Marketing and Logistics, 22(3), 351–371. https://doi.org/10.1108/13555851011062269
- Republic of Indonesia Ministry of Health. (2015). 2015-2019 Ministry of Health Strategy Draft. jakarta: MOH RI
- Kessler, DP, & Mylod, D. (2011). Does patient satisfaction affect patient loyalty? International Journal of Health Care Quality Assurance, 24(4), 266–273. https://doi.org/10.1108/09526861111125570
- Kesuma, IAW, Hadiwidjojo, D., Wiagustini, NLP, & Rohman, F. (2013). Service quality influence on patient loyalty: Customer relationship management as mediation variable (study on private hospital industry in Denpasar). International Journal of Business and Commerce, 2(12), 1–14.
- Kim, WG, & Cha, Y. (2002). Antecedents and consequences of relationship quality in the hotel industry. International Journal of Hospitality Management, 21(4), 321–338. https://doi.org/https://doi.org/10.1016/S0278-4319(02)00011-7
- Kotler, P. (2015). Marketing Management. Jakarta: Salemba Empat.

- Kotler, P., & Keller, KL (2016). Marketing Management. New Jersey: Pearson Prentice Hall Intl.
- Kulsum, U., & Shah, TYR (2017). The effect of service quality on loyalty with the mediation of patient satisfaction. International Journal of Business and Management Invention, 6(3), 41–50. http://www.ijbmi.org/
- Ling, C.-P., & Ding, CG (2006). Evaluating group differences in gender during the formation of relationship quality and loyalty in ISP services. Journal of Organizational and End User Computing (JOEUC), 18(2), 38–62. https://doi.org/https://doi.org/10.4018/joeuc.2006040103
- Lovelock, C., & Patterson, P. (2015). Services marketing. Australian Pearsons.
- Marković, S., Lončarić, D., & Lončarić, D. (2014). Service quality and customer satisfaction in the health care industry-towards the health tourism market. Tourism and Hospitality Management, 20(2), 155–170. https://doi.org/https://doi.org/10.20867/thm.20.2.1
- Martínez, P., & Rodríguez del Bosque, I. (2013). CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction. International Journal of Hospitality Management, 35, 89–99. https://doi.org/https://doi.org/10.1016/j.ijhm.2013.05.009
- Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. Journal of Retailing and Consumer Services, 40, 261–269. https://doi.org/https://doi.org/10.1016/j.jretconser.2016.10.011
- Mendoza, AM (2014). Correlation analysis of customer satisfaction and loyalty in Carlito Pena Reyes Hospital. Asia Pacific Journal of Multidisciplinary Research, 2(4), 39–45.
- Moha, S., & Loindong, S. (2016). Analysis of service quality and facilities on customer satisfaction at Yuta Hotel in Manado city. EMBA Journal: Research Journal of Economics, Management, Business and Accounting, 4(1). https://doi.org/https://doi.org/10.35794/emba.4.1.2016.11715
- Muhtarom, A., Syairozi, MI, & Yonita, HL (2022). Analysis of Perceptions of Price, Location, Facilities, and Quality of Service on Customer Loyalty Mediated by Purchase Decisions (Case Study on Umkm Skck (Culinary Station Canditunggal Kalitengah) Structural Equation Modeling (SEM)-Partial Least Method. EKOMBIS REVIEW: Scientific Journal of Economics and Business, 10 (S1), 391–402. https://doi.org/https://doi.org/10.37676/ekombis.v10iS1.2018
- Nanang, N., & Pasharibu, Y. (2021). Brand image, Location, and Sport Club Gym Facilities on Customer Loyalty. Journal of Research and Development in Science and Humanities, 5(1), 125–132. http://publication.petra.ac.id/index.php/management-business/article/view/8188
- Nugrahaningsih, H. (2019). The Effect of Service Facilities and Brand Image on Consumer Loyalty with Consumer Satisfaction as an Intervening Variable at Pt. Pipilaka Tour And Travel In Tangerang. MEDIA MANAGEMENT SERVICES, 7(1). https://doi.org/https://doi.org/10.52447/mmj.v7i1.2451
- Olever, RL (2010). Satisfaction: a behavioral perspective on the customer. New York: Irwin McGraw Hill.
- Ozturkcan, S., Aydin, S., Ates, M., & Tansel Cetin, A. (2009). Effects of service quality on customer satisfaction and customer loyalty: example of Marmara University Hospital. International Congress on Performance and Quality in Health (Uluslararasi Saglikta Performans ve Kalite Kongresi). https://doi.org/https://dx.doi.org/10.2139/ssrn.1362601
- Pakurár, M., Haddad, H., Nagy, J., Popp, J., & Oláh, J. (2019). The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector. In Sustainability (Vol. 11, Issue 4). https://doi.org/10.3390/su11041113
- Pouragha, B., & Zarei, E. (2016). The effect of outpatient service quality on patient satisfaction

in teaching hospitals in Iran. Materia Socio-Medica, 28(1), 21. https://doi.org/https://doi.org/10.5455%2Fmsm.2016.28.21-25

- Pratminingsih, SA, Astuty, E., & Widyatami, K. (2018). Increasing customer loyalty of ethnic restaurants through experiential marketing and service quality. Journal of Entrepreneurship Education, 21(3), 1–11. https://www.researchgate.net/profile/Eriana-Astuty/publication/335661869
- Puspita, RM, & Santoso, S. (2018). The Influence of Service Quality and Supporting Facilities on Customer Satisfaction at Yogyakarta Lempuyangan Station. Exist: Journal of Economics and Business Research, 13(1), 69–80. http://ejournal.stiedewantara.ac.id/index.php/001/article/view/170
- Rahim, AG (2017). Customer satisfaction and loyalty: A study of interactions and effects in the Nigerian Domestic Airline Industry.
- Retnoningsih, A., & Suharso. (2006). Indonesia Dictionary. Semarang: CV. Widya Karya.
- Rigopoulou, ID, Chaniotakis, IE, Lymperopoulos, C., & Siomkos, GI (2008). After-sales service quality as an antecedent of customer satisfaction. Managing Service Quality: An International Journal, 18(5), 512–527. https://doi.org/10.1108/09604520810898866
- True, NDII (2013). Analysis of Community Health Center Utilization of Health Facilities in Ngrampal District, Sragen Regency. Muhammadiyah Surakarta university.
- Setyawati, WA, Rifa'i, M., & Sasmito, C. (2018). The Effect of Service Quality, Facilities, Prices and Institutional Image on Patient Satisfaction. Madani Journal of Politics and Social Affairs, 10(2), 50–63. https://doi.org/https://doi.org/10.52166/madani.v10i2.1052
- Shahid Iqbal, M., Ul Hassan, M., & Habibah, U. (2018). Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction. Cogent Business & Management, 5(1), 1. https://doi.org/10.1080/23311975.2018.1423770
- Sharew, NT, Bizuneh, HT, Assefa, HK, & Habtewold, TD (2018). Investigating admitted patients' satisfaction with nursing care at Debre Berhan Referral Hospital in Ethiopia: a cross-sectional study. BMJ Open, 8(5), e021107. https://doi.org/10.1136/bmjopen-2017-021107
- Sitio, T., & Ali, H. (2019). Patient Satisfaction Model and Patient Loyalty: Analysis of Service Quality and Facility (Case Study at Rawamangun Special Surgery Hospital). Scholars Bulletin, 05(10), 551–559. https://doi.org/10.36348/sb.2019.v05i10.002

Smith, S., & Wheeler, J. (2002). Managing the customer experience: Turning customers into advocates. Pearson Education.

Srivastava, M. (2015). Influencers of Customer Satisfaction, Customer Loyalty Relationship A Conceptual Research Model. Journal of Faculty of Management Studies, Banaras Hindu University, 7(1), 54–65. http://www.iimidr.ac.in/wp-content/uploads/Vol7-7-ICS.pdf

Supriyanto, W. (2012). Quality Management of Health Services. Surabaya: Health Advocacy.

- Susanti, A., Razak, A., & Muchlis, N. (2021). The Influence of Service Quality on Inpatient Satisfaction at Laburan Baji Makassar Hospital during the Covid-19 Pandemic. An Idea Health Journal, 1(02), 118–125. https://doi.org/https://doi.org/10.53690/ihj.v1i02.53
- Tjiptono, F. (2015). Marketing Strategy Fourth Edition. Yogyakarta: Andi Offset.
- Toufaily, E., Ricard, L., & Perrien, J. (2013). Customer loyalty to a commercial website: Descriptive meta-analysis of the empirical literature and proposal of an integrative model. Journal of Business Research, 66(9), 1436–1447. https://doi.org/https://doi.org/10.1016/j.jbusres.2012.05.011
- Vebnia, A., Pradhanawati, A., & Nurseto, S. (2013). The Influence of Facilities, Location and Rates on Loyalty through Patient Satisfaction as a Mediation Variable in Patients at the Muhammadiyah Semarang Poly Hospital. Journal of Business Administration, 2(4), 190–197. https://doi.org/https://doi.org/10.14710/jiab.2013.3637

- Widodo, MR, & Prayoga, D. (2022). Patient Satisfaction and Loyalty for Services in Primary Health Facilities: A Literature Review. JIIP-Journal of Scientific Education, 5(2), 568– 572. https://doi.org/https://doi.org/10.54371/jiip.v5i2.458
- Winata, A., & Prabowo, B. (2022). The Effect of Price, Facilities and Service Quality on Customer Loyalty with Customer Satisfaction as an Intervening Variable at the London Beauty Center (LBC) Sidoarjo. El-Mal: Journal of Islamic Economics & Business Studies, 3(5), 810–822. https://doi.org/https://doi.org/10.47467/elmal.v3i5.1106
- Yang, Y., Lee, PK, & Cheng, TCE (2016). (2016). Continuous improvement of competence, employee creativity, and new service development performance: A frontline employee perspective. International Journal of Production Economics, 17(1), 275–288. https://www.sciencedirect.com/science/article/pii/S0925527315002911
- Yunari, I. (2017). The Influence of Infrastructure and Service Quality on Patient Satisfaction (Study on Outpatient Patients at IPDN Jatinangor Polyclinic Unit). Coopetition, 8(2), 155.
- Zaid, AA, Arqawi, SM, Mwais, RMA, Al Shobaki, MJ, & Abu-Naser, SS (2020). The impact of Total quality management and perceived service quality on patient satisfaction and behavior intention in Palestinian healthcare organizations. Technology Reports of Kansai University, 62(03), 221–232. https://www.researchgate.net/profile/Ahmed-Zaid-2/publication/341043587