

ANTECEDENTS AND CONSEQUENCES EFFECT OF PATIENT SATISFACTION IN XYZ HOSPITAL

Satyawati¹, Margaretha Pink Berlianto^{2*}

^{1,2} Department of Management, Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang, Indonesia

² margaretha.berlianto@uph.edu

* Corresponding Author

Abstract

Purpose – This research aims to analyze the antecedents and consequences effect of patient satisfaction on patient loyalty in XYZ hospital Bogor

Design/Methodology/Approach – This study used quantitative research and data collection was collected using questionnaire. The target population of this research were in patient at XYZ hospital and willing to be respondents of this research. The number of samples were determined to be which 212 samples. The sampling technique use was purposive sampling. Partial Least Square-Structural Equation modelling (PLS-SEM) is applied to this study.

Findings – The result of data analysis showed that quality of object, quality of infrastructure, quality of interaction, dan quality of atmosphere have positive effect on patient satisfaction, Quality of process has a negative effect on patient satisfaction. Lastly patient satisfaction have positive effect on patient loyalty

Research Limitations/Implications – This research only focuses on hospitalized patient, limitation time and only at one hospital. The focus on this research to analyze the effect of 5Q service quality : quality of object, quality of process, quality of infrastructure, quality of interaction, quality of atmosphere on patient satisfaction, and patient satisfaction on patient loyalty

Practical Implication – The result of data analysis, XYZ hospital can improve quality of object, quality of infrastructure, quality of interaction, quality of atmosphere and redesign the quality of process to increase patient satisfaction and patient loyalty

Originality/Value – This research gives information to XYZ hospital management to make improvement and further planning how to increase service quality effort to increase the patient satisfaction and the patient loyalty

Keywords: quality object; quality process; quality infrastructure; quality interaction; quality atmosphere; patient satisfaction; patient loyalty

INTRODUCTION

The hospital industry is a dynamic and quickly developing public-sector that is now experiencing increased competition and major changes. Competition is an inherent fact of life. Healthy competition can provide an overview for the public to see the level of quality of care by a hospital to get the best service (Strumann et al., 2022). Hospitals are trying in such a way to survive, especially private hospital. The quality of hospital services is very important in ensuring patient satisfaction and maintaining the reputation of the hospital (Leszczyński et al., 2022)

Patient loyalty is often based on the quality of service offered. Quality of service is one of the most critical criteria for service providers to consider, and it must be precisely assessed in order to improve (Rosadi et al., 2020) At the same time, better-than-average healthcare offers businesses with an opportunity to stand out in a competitive marketplace (Singh et al., 2020). Today, due to the growing expectations of ordinary conveniences and higher customer desires, It has become a must for hospitals to deliver exceptional health services and meet the demands of their patient. Patients experiences with private hospital services have a significant influence on their propensity to return to the same hospital, utilize its services again, or recommend it to others. The link above quality of service and customer loyalty demonstrates the strategic

necessity of enhancing quality of service for attracting and maintaining customers, as well as growing market share (Arab et al., 2012)

Satisfied patients who are happy with one health treatment are more likely to become loyal consumers and visit the hospital again. If the patient receives excellent service, they will always be committed to the hospital (Sholeh & Chalidyanto, 2021). Satisfaction is a major determinant of hospital selection. Patient satisfaction is accomplished through listening to and reacting to patients' needs, as well as by continually enhancing the quality of service systems. Patient satisfaction also has effect on other aspects of health care, such as retention, which is an important factor in deciding whether or not a patient would return to the same hospital. Furthermore, providing high-quality treatment, encouragement, and rewards aids in patient retention (Endra et al., 2020)

The XYZ Hospital as a private hospital is financially dependent on the number of visits and patient care, therefore needs to evaluate the quality of service. Its service quality can be identified by monitoring the satisfaction and loyalty of patients seeking treatment at XYZ hospital.

The purpose of this analysis was to understand how the 5Q service quality dimension, derived from Zineldin (2000), affected patient satisfaction and loyalty. Quality cannot improve until it is measured, and measurements give the comparisons that allow the business to justify the change it needs to attain client/patient satisfaction. This 5Qs approach is now regarded as a viable and trustworthy instrument for healthcare practitioners to assess patient satisfaction (Ajarmah et al., 2017).

LITERATUR REVIEW AND SUBMISSION OF HYPOTHESES

The satisfactory of a hospital's quality management system leads to a sufficient level of health care quality.(Zarei et al., 2019). The concept of quality of health services is dynamic and evolving(Tošić et al., 2018) and health care providers should assess the current state of knowledge so that their services can be considered qualitative as is increasingly recognized that the preferences and views of patients (Almomani et al., 2020)public and other key actors are also important in determining the quality of healthcare (Kourkouta, et al., 2021);(Georgiadou & Maditinos, 2017). The increasing competition in the health industry and the need for people to get good health services have encouraged hospital managers to apply a quality management system (Kim et al., 2017).

One of the most important variables impacting the growth of health-care organizations is quality management systems (Almomani et al., 2020). They will improve efficiency while also increasing brand loyalty and market share. Quality is thought to be a factor of a company's competitiveness as well as the long-term profitability of its services. (Zineldin, 2000) developed the 5Qs framework to assess service quality by combining the technical-functional and service quality models. Five dimensions (5Qs) models are: quality of object, quality process, quality infrastructure, quality interaction, quality atmosphere

Relationship between Quality of Objects and Patient Satisfaction

Quality of object, the dimensions consist of facilities, infrastructure and services provided by the hospital (Zineldine., 2000). Patients will receive the service quality while they visit the hospital base on the quality of object providing a sight of health care, and the quality that is effectively for long-term satisfaction. Quality of object and patient satisfaction have a close relationship. A higher level of quality of object result in a higher of patient satisfaction. (Zineldine., 2000), (Ajarmah et al., 2017) analyses the effect of quality of object on patient satisfaction. (Sharma, 2017) conducted a case study in India which showed that quality of

object significantly affect customers satisfaction. Based on prior research, it is hypothesized that quality of object has a positive effect of patient satisfaction.

H1: Quality of object has a positive effect on patient satisfaction.

Relationship between Quality of Process and Patient Satisfaction

Refers to the functional features that make procedures more effective and efficient. These policies promote the execution of high-quality health-care initiatives. This action has the potential to cut wait times and speed up the delivery of requested medical treatments. Process indicators must be utilized to improve the quality of health care. This indicator is useful for tracking activity and making daily decisions. The patient's key expectations are evaluated, and the quality of the procedure is one of them. The quality of process directly informs the patient's expectations and directly manages the patient's expectations. (Ajarmah et al., 2017; Arab et al., 2012; Sharma, 2017) analyses the effect quality of process on patient satisfaction. The result of the research show that Quality Process is an important factor of patient satisfaction. This means that the better the quality of process, the more likely the patient satisfaction accepted. Based on description above, the second hypothesis is :

H2: Quality of process has a positive effect on patient satisfaction.

Relationship between Quality of infrastructure and Patient Satisfaction

Quality of the resources and the functioning of healthcare system. It includes tangible and non-tangible assets. Non tangible resources such as internal competencies, skills, experience, technology, motivation, leadership, attitude and the important things is, a patient has a best quality services and satisfaction. (Ajarmah et al., 2017) in Jordan, with 324 total respondents, from five military hospitals, show that quality infrastructure has a positive effect on patient satisfaction. The result is the same with research from (Sharma, 2017). Based on description above and base on prior research, the third hypothesis is :

H3: Quality of Infrastructure has a positive effect on Patient Satisfaction.

Relationship between Quality of Atmosphere and Patient Satisfaction

When providing a full range of health services, hospitals must develop an environment that is conducive to customer comfort. The patient's positive service experience in a nice setting will be remembered and have an impact on the patient's survival. The environment in which patients engage is of high quality. The culture of an organization determines the quality of its surroundings. Only a quality culture can close the gap between expectations and reality, because satisfaction is an emotional reaction to the disparity between where patients expect and what they ultimately receive (Zineldin, 2000). The service experience received by patient in a pleasant environment will be recorded in patient's memory and affect the patient's survival. Environmental quality where patient interact. Satisfaction is an emotional response to the difference between what patients expect and what they receive. (Sharma, 2017). The research, from (Ajarmah et al., 2017; Sharma, 2017; Zineldine., 2000) analyses the effect of quality of atmosphere to patient satisfaction. Based on prior research and based on description above, the fourth hypothesis is :

H4: Quality of Atmosphere has a positive effect on Patient Satisfaction.

Relationship between Quality of Interaction and Patient Satisfaction

The interaction between the patient as a user and all service provider components, including the information delivered to the user of the requested information, is one element that might impact service quality. A high-quality degree of touch increases the objectivity required. The level of engagement establishes a foundation of contentment, which leads to

patient visits. The association between satisfaction and patient visits has been the focus of much study on this topic and patient satisfaction. Customer retention, in the end, inspires loyalty.

Many research on this subject and patient satisfaction has focused on the relationship of satisfaction and patient visits. Ultimately, customer retention encourages loyalty (Arab et al., 2012), analyzed the Quality of interaction has a negative effect to patient satisfaction. The research held in Teheran, with 943 respondents from 8 private hospital. The result was different with research from (Ajarmah et al., 2017; Sharma, 2017) . Based on description above, the fifth hypothesis is

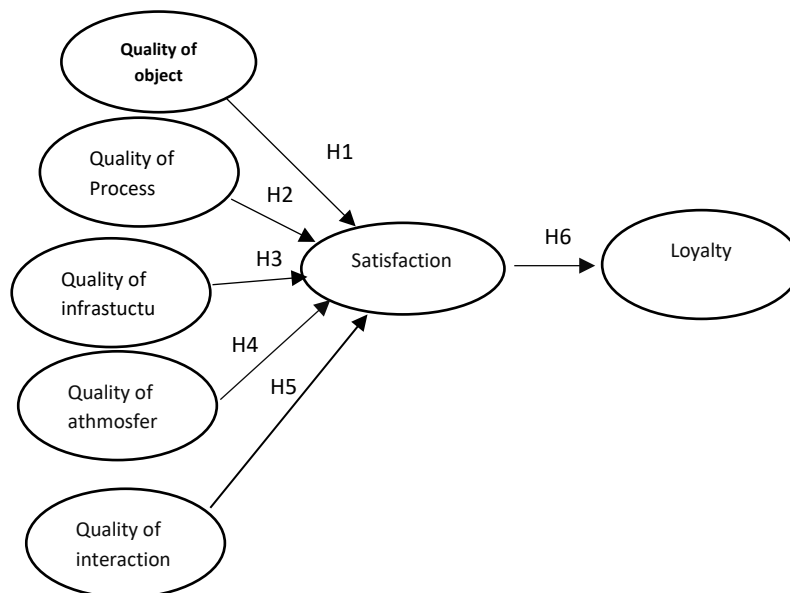
H5: Quality of interaction has a positive effect on patient Satisfaction.

Relationship between Patient Satisfaction and Patient Loyalty

Loyalty is defined as a strong dedication to continuously re utilize a thing of choice , thus causing repeated purchases of the same items (Liu et al., 2021). Based on (Uysal & Yorulmaz, 2020) The concept of patient loyalty or patient commitment to one hospital, can be defined as the patients intentions and request or patient to maintain a doctor patient relationship due to the medical services by the hospital. Therefore, service quality and patient satisfaction have a positive effect on patient loyalty to the hospital. Satisfied patient will become loyal customer and tent to choose the same hospital for treatment and spread positive word of mouth (Sholeh & Chalidyanto, 2021). Previous researches done by (Liu et al., 2021; Meesala & Paul, 2018; Sholeh & Chalidyanto, 2021; Uysal & Yorulmaz, 2020) so indicating that patient satisfaction has significant effect on patient loyalty. Base on description above, the sixth hypothesis is:

H6 : Patient satisfaction has a positive effect on patient loyalty.

Structural Model



METHODS

This research is a quantitative study with a cross sectional approach. The population of this study are all individuals who have been hospitalized as inpatients. This study used purposive sampling with a sample of 212 respondents who have received a service from a private hospital. The sample was collected during February until April 2022 by digitally sending out the form link to fill the questionnaire. Overall, The questionnaire contains 30

question items spread across seven variables. The Quality of Object (QO) variable consists of four indicators, Quality of Process (QP) variable consists of five indicators, Quality of Infrastructure (QI) consists of six indicators, Quality of Atmosphere (QA) consist of five indicators, Quality of Interaction (QIN) consist of two indicators, Patient Satisfaction (SAT) variable consists of four indicators. Patient Loyalty (LO) variable consists of four indicators. The indicator adopted from Sharma, 2017)

Respondents were asked to report how certain of the written statements according to what they thought, felt or experienced using a Likert scale: strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5). Before distributing the actual data, a preliminary study was conducted where all indicators were valid and reliable for the distribution of the actual questionnaire. Data was analyzed using Partial Least Squares - Structure Equation Modeling. (PLS-SEM). All data were analyzed using PLS-SEM with help of software SmartPLS for MAC version 3.0. Evaluation of the outer model measurement model is carried out with a convergent validity test with the condition that the loading factor value is above 0.4. In this test, there is some indicator that is removed, namely PS2 and PS4 because it has an outer loading value below 0.4. The average variance extracted (AVE) value is above 0.5 and the composite reliability value must be greater than 0.7 (Hair et al., 2012). Furthermore, the structural model (inner model) was evaluated with the research results were accepted if the t-statistic > 1.65. Pretest discriminant validity ranged from 0.808 to 0.90, all variable meet Fornell-Larcker criteria, the square root value of AVE must be greater than the correlation value between variables (Ghozali & Lattan, 2015). All variables meet the outerloading, AVE, discriminant validity, and composite realibility values means that all variables are valid and can be used.

RESULT AND ANALYSIS

The following is demographic data of respondents that have been collected based on gender, level of education and the type of work used in the research.

Table 1. Demographic details of respondents

Variable	Frequency	(%)
Gender		
Male	6	2.8
Female	206	97.2
Age of Respondent		
21 – 40 tahun	178	84
41 – 50	29	14
>50	5	2
Education		
Senior High School	39	19
Graduates	171	80
Post- Graduates	2	1
Employment		
Unemployed	3	2
House Wife	4	2
Private Employee	205	96

A Total of 212 respondent were acquired from the research. **Table 1** Based on age, most of the research subjects came from the age range of 21-40 years, almost 84%. Meanwhile, based on gender, 206 respondents or 96.8% were women. Most of the respondents' occupations were private employees, which was 96% or 205 respondents, and 80% or 171 respondents had an undergraduate education background.

Testing convergent and discriminant validity is most often used in research to measure the model (Ghozali & Lattan, 2015). The indicator's convergent validity test is seen from the loading factor value for each construct indicator. The results of the actual test can be seen in table 2 and all indicators have an outer loading value above 0.4 and the average variance extracted (AVE) value for all variables is above 0.5 and has a composite reliability (CR) value above 0.7.

A good discriminant variable can be shown based on the square root of the AVE for each construct which is greater than the correlation between constructs in the model (Ghozali & Lattan, 2015). Afterwards, we calculated discriminant validity of all existing variables has been achieved because the square root value of the AVE in each has been greater than the correlation between constructs

Table 2. Validity and Reliability Measurements

Indicators	Loading factor
Quality of object (QO) (CR = 0.947) /AVE = 0.815)	
{QO1} Sense of well-being that you felt in the hospital	0.909
{QO2} Ability of the hospital to treat you the way you expected	0.938
{QO3} Sense of security from physical harm you felt in the hospital	0.850
{QO4} Performance of services when they were supposed to be performed	0.915
Quality of process (QP) (CR = 0.929 /AVE = 0.734)	
{QP1} Waiting time for medication	0.814
{QP2} Waiting time for tests	0.864
{QP3} Speed and ease of admissions	0.908
{QP4} Time between admission	0.825
{QP5} Time between getting into your room	0.843
Quality of infrastructure (QIS) (CR = 0.948 /AVE = 0.753)	
{QIS1} Skills of the nurses attending you	0.853
{QIS2} Skill of those performing your tests	0.882
{QIS3} Skill of the physicians attending you	0.905
{QIS4} Temperature of the food	0.893
{QIS5} Physical appearance of room	0.855
{QIS6} Cleanliness of the hospital	0.816
Quality of atmosphere (QA) (CR = 0.961 /AVE = 0.830)	
{QA1} Responsiveness of nurses to your needs	0.917
{QA2} Ability of information about your condition	0.886
{QA3} Politeness of the nurses	0.920
{QA4} Responsiveness of the physicians to your needs	0.910
{QA5} Hospital concern for family	0.925
Quality of interaction (QIN) (CR = 0.961 /AVE = 0.923)	
{QIN1} Adequacy of explanation about your treatment	0.961
{QIN2} Adequacy of instruction upon release from the hospital	0.962
Satisfaction (SAT) (CR = 0.952 /AVE = 0.838)	
{SAT1} I am happy with the efforts this hospital makes toward patients	0.943
{SAT2} I am satisfied with the relationship I have with this hospital	0.956
{SAT3} Hospital services appropriate with my needs	0.945
{SAT4} Financially, is appropriate with me	0.800
Loyalty (LO) (CR = 0.975 /AVE = 0.908)	
{LO1} I would always visit this hospital for medication	0.948
{LO2} I would always visit this hospital for treatment	0.950
{LO3} I would recommend this hospital to my friends	0.959
{LO4} I will choose this hospital every time I need	0.951

Notes: CR : Composite Reliability, AVE : Average Variance Extracted

The result of convergent validity test show where composite reliability value range from 0.947 to 0.975, AVE value range from and outer loading value range from 0.734 to 0.923. All variables meet the criteria value mean that all variables are a valid and reliable.

Table 3. Discriminant Validity Using the Fornell – Lacker Criteria

	Loyalty	Quality Of Process	Quality of Infrastructure	Quality of Interaction	Quality of Object	Quality of Atmosphere	Satisfaction
Loyalty	0,952						
Quality Of Process	0,497	0,851					
Quality of Infrastructure	0,828	0,614	0,868				
Quality of Interaction	0,796	0,505	0,843	0,961			
Quality of Object	0,752	0,539	0,825	0,740	0,904		
Quality of atmosphere	0,802	0,539	0,858	0,896	0,748	0,912	
Satisfaction	0,851	0,555	0,846	0,848	0,793	0,850	0,913

The result of discriminant validity test show shown in **Table 3**, overall result of measurement model has meet the Fornell-Lacker criteria.

Table 4. R Result test

Variabel	R ²
<i>Satisfaction</i>	0.808
<i>Loyalty</i>	0.725

From **Table 4**. Satisfaction constructs are influenced by the construction of Quality of Object, Quality of Process, Quality of Infrastructure, Quality of Atmosphere, and Quality of Interaction by 0.808 or 83.0% while 17.0% are influenced by other constructs outside of this study. Loyalty constructs were influenced by satisfaction, trust and commitment constructs of 0.806 or 80.6%. The study also indicates that loyalty 19.4% was influenced by other constructs not covered by this research

Table 5. Structural Model Result Test

Hypothesis	Standarized coefficient	t-Statistic	Result
H1. The Quality of object has positive effect on patient satisfaction.	0.222	3.375	Accepted
H2. The Quality of process has positive efect on patient satisfaction	0.046	1.104	Not Accepted
H3. The Quality of infrastructure has positive effect on patient satisfaction	0.182	1.974	Accepted
H4.The Quality of atmosphere has positiveeffect on patient satisfaction	0.249	2.434	Accepted
H5. The Quality of interaction has positive effect on patient satisfaction	0.282	2.588	Accepted
H6. Patient Satisfaction has positive effect on Patient Loyalty	0.285	2.944	Accepted

Hypothesis testing the significance of the correlation coefficient between the independent variable and the dependent, it can be determined by doing the t-test. The minimum value of t-statistic in this study is 1.65 with a significance of 0.05. The table above shows hypothesis testing regarding whether it is significant or not significant. Result of **H1**, indicating that Quality of Object has positively effect patient satisfaction.

This study has the same result that conducted in India (Sharma, 2017), with 250 respondents were selected randomly come from an academic organization at four private hospitals, they were working. This result consistent with the previous researches stated that quality of object has positive effect to patient satisfaction. (Ajarmah et al., 2017; Zineldine., 2000). Result of **H2**, indicating that Quality of Process has negative effect to patient Satisfaction.

The hypothesis in quality of process will be positively relationship with patient satisfaction is rejected. This is in contrast to the study by (Ajarmah et al., 2017; Arab et al., 2012; Sharma, 2017) which Quality of process will be positively effect on patient satisfaction. Quality of Process is related with waiting times; the time is taken to understand the problem and provide service healthcare to patient. Result of **H3**, indicating that Quality Infrastructure has positive effect on patient satisfaction. This result consistent with the previous researches. (Ajarmah et al., 2017; Sharma, 2017)

Result of **H4**, Quality Atmosphere has a positive relationship on patient satisfaction. The hypothesis, the quality of atmosphere related with patient satisfaction is supported. The result is different with study from (Sharma, 2017) quality of atmosphere has a negative effect to patient satisfaction.

Result of **H5**, Quality interaction has a positive relationship on patient satisfaction. The finding of the research is in the line with previous study (Ajarmah et al., 2017; Sharma, 2017), but different result from (Arab et al., 2012), the quality of interaction has negative effect on patient satisfaction. Result of **H6**, Patient Satisfaction has a positive relationship on Patient Loyalty

The finding of the study is in the line with previous research, there is a significant direct effect between patient satisfaction and patient loyalty. The relationship between patient Satisfaction and patient Loyalty have been observed by (Leissen Pollack, 2009; Vaz, 2018)

Patient satisfaction can affect patient behaviour, such as loyalty, which may result in making healthcare recommendation to their family, relatives, friends or the other. In addition, loyalty can improve patient adherence to medical treatments. Another study also found that when patient is satisfied with the service hospital, the patient will lead to repetitive purchase thus providing loyalty (Liu et al., 2021; Meesala & Paul, 2018; Woratschek et al., 2020)

CONCLUSION, IMPLICATION AND LIMITATION

Conclusion

Based on the result of data analysis in this study, it can be concluded that Quality of process is not associated with patient satisfaction. Patient satisfaction have a significant and positive effect to patient loyalty. The study found a positive effect between all 4Q ; quality of object, quality of infrastructure, quality of atmosphere, quality of interaction on patient Satisfaction. The XYZ hospital should understand the link between specific dimensions of service quality, patient satisfaction and patient loyalty.

Managerial implication

The XYZ hospital management should understand the link between specific dimensions of service quality, patient satisfaction and patient loyalty. Critical dimensions have to be identified so that they will be focused on. Quality of Process has a negative effect on Patient satisfaction, the quality has a relationship with waiting time. Delay in the service process may be cause by human resources, limited facilities and equipment. A good management strategy must be a priority in dealing these obstacles. Hospital management must coordinate with those involved in this matter so that waiting time is not affected the quality of services. To achieve

patient loyalty, hospital need to improve good relation and good communication with patients to understand patient needs and patient expectation. Furthermore, patients are expecting more and more quality care, and if they do not receive it, they will go elsewhere.

Limitation Research

There is some limitation of this study. The limited a sample size of study and the respondents only from inpatient that have service health care in hospital X.

REFERENCES

- Ajarmah, B., Hashem, T., & Swies, R. (2017). The effect of 5 Q model on patient's satisfaction in military hospital in Jordan. *International Journal of Productivity and Quality Management*, 20(3), 273–290.
- Almomani, R. Z. Q., Al-Ghdabi, R. R., & Hamdan, K. M. (2020). Patients' satisfaction of health service quality in public hospitals: A PubHosQual analysis. *Management Science Letters*, 10(8), 1803–1812. <https://doi.org/10.5267/j.msl.2019.12.038>
- Arab, M., Tabatabaei, G., Rashidian, A., & Zarei, E. (2012). The effect of service quality on patient loyalty : a study of private hospital in Teheran Iran. *Iranian Journal Publ Health*, 41(9), 71–77
- Endra, F., Setyawan, B., Supriyanto, S., Ernawaty, E., & Lestari, R. (2020). *Understanding patient satisfaction and loyalty in public and private primary health care on m e r c i a l u s e o n o n o m m e r c i a l u s e o n l y*. 9, 1–4.
- Ghozali, I., & Lattan, H. (2015). *Partial least squares konsep. Teknik dan aplikasi menggunakan smart PLS 3.0* (Edisi ke 2).
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research . *Journal of the Academy of Marketing Science*, 40(3), 414–433.
- Kalia, P., Kaushal, R., Singla, M., & Prakash, J. (2021). Determining the role of service quality, trust and commitment to customer loyalty for telcome service users : a PLS-SEM approach. *The TQM Journal* , 33(7), 377–396.
- Kim, C. E., Shin, J.-S., Lee, J., Lee, Y. J., Kim, M., Choi, A., Park, K. B., Lee, H.-J., & Ha, I.-H. (2017). Quality of medical service, patient satisfaction and loyalty with a focus on interpersonal-based medical service encounters and treatment effectiveness: a cross-sectional multicenter study of complementary and alternative medicine (CAM) hospitals. *BMC Complementary and Alternative Medicine*, 17(1), 1–12. <https://doi.org/10.1186/s12906-017-1691-6>
- Kourkouta, L., Iliadis, C., Sialakis, C., Adamakidou, T., Ouzounakis, P., & Kleisiaris, C. (2021). Quality of health services. *World Journal of Advanced Research and Reviews*, 12(01), 498–502.
- Leissen Pollack, B. (2009). Linking the hierarchical service quality model to customer satisfaction and loyalty. *Journal of Services Marketing* , 23(1).
- Leszczyński, P. K., Sobolewska, P., Muraczyńska, B., Gryz, P., & Kwapisz, A. (2022). Impact

- of COVID-19 Pandemic on Quality of Health Services Provided by Emergency Medical Services and Emergency Departments in the Opinion of Patients: Pilot Study. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031232>
- Liu, S., Li, G., & Hongwei, W. (2021). The impact of patient satisfaction on patient loyalty with the mediating effect of patient trust. *INQUIRY: The Journal of Healthcare Organization, Provision and Financing*, 58, 1–11. <https://doi.org/https://doi.org/10.1177/00469580211007221>
- Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospital : thinking for the future. *Journal of Retailing and Consumer Services*, 40, 261–269
- Rosadi, B., Arafah, W., Usman, B., & Yaputra, H. (2020). *Service Quality , Satisfaction and Patient Loyalty in Indonesia*. 9(10), 47–51. <https://doi.org/10.35629/8028-0910014751>
- Sharma, V. (2017). Patient satisfaction and brand loyalty in health care organization in India. *Journal of Asia Business Studies*, 11(1), 73–87.
- Sholeh, M., & Chalidyanto, D. (2021). The effect of service quality on loyalty through patient satisfaction in outpatient of hospital X, malang. *Jurnal Medicoeticolegal and Managemen Rumah Sakit*, 10(2), 148–157.
- Singh, H., Dey, A. K., & Sahay, A. (2020). Exploring sustainable competitive advantage of multispecialty hospitals in dynamic environment. *Competitiveness Review*, 30(5), 595–609. <https://doi.org/10.1108/CR-12-2018-0091>
- Strumann, C., Geissler, A., Busse, R., & Pross, C. (2022). Can competition improve hospital quality of care? A difference-in-differences approach to evaluate the effect of increasing quality transparency on hospital quality. *European Journal of Health Economics*, 0123456789. <https://doi.org/10.1007/s10198-021-01423-9>
- Tošić, B., Ruso, J., Filipovic, J., & Filipović, J. (2018). Quality Management In Health Care: Concepts, Principles, And Standards. *3rd International Conference on Quality of Life, November*, 193–200. <https://www.researchgate.net/publication/329092690>
- Tosyali, H., Sefa Sutcu, C., & Tosyali, F. (2019). Patient Loyalty in the hospital-patient relationship : The mediating role of social media. *Journal of Erciyes Communication*, 6(1), 783–804.
- Uysal, B., & Yorulmaz, M. (2020). How patient loyalty affect patient satisfaction. *Athens Journal of Health & Medical Sciences*, 7(1), 19–36.
- Vaz, N. (2018). Patient Satisfaction . In *Healthfor care administration for patient safety and engagment* (pp. 186–200). IGI Global publisher.
- Woratschek, H., Horbel, C., & Popp, B. (2020). Determining customer satisfaction and loyalty from a value co-creation perspective. *Service Industries Journal* , 40(11–12), 777–799.
- Zarei, E., Karimi, S., Mahfoozpour, S., & Marzban, S. (2019). Assessing hospital quality management systems: evidence from Iran. *International Journal of Health Care Quality Assurance*, 32(1), 87–96. <https://doi.org/10.1108/IJHCQA-11-2017-0208>

- Zeithmal, V., Berry, L., & Parasuratman, A. (1988). Communication and control process in the delivery service quality. *The Journal of Marketing* , 35–48.
- Zhou, W. J. (2017). Deteminant of patient loyalty to healthcare providers : an integrative review. *International Journal for Quality in Health Care*, 29(4).
- Zineldine. (2000). Beyond relationship marketing : technologicalship marketing. *Marketing Inteligence and Planning*, 18(1), 9–23.