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How can service quality, patient value, and patient satisfaction increase hospital patient loyalty?

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ABSTRACT

Patient loyalty will be created if the hospital is able to provide quality services that create the best values for patients thereby increasing patient satisfaction. Failure to understand quality of service, patient value, and patient satisfaction will risk losing patient loyalty to hospital services. This study aims to analyze the model of hospital patient loyalty as the effect of service quality, patient value and patient satisfaction. A cross sectional study was conducted through a survey among inpatients at eight hospitals in Jambi Province-Indonesia. A four-point likert scale was used to measure construct variables and analyzed using Partial Least Squares-Structural Equation Model. The results showed that the influence between factors in the coefficient path has a significant effect, except for the indirect effect between service quality and patient loyalty through value. Hospital management practitioners should focus on developing service quality improvement strategies that are able to create value for patients so as to increase satisfaction and ultimately encourage and maintain patient loyalty. Hospitals can take advantage of this research model as a self-evaluation instrument to achieve patient loyalty so as to increase hospital revenue and reputation.



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Introduction

Public attention to hospitals was increasing as along as increasing demand for quality services to maintain patient satisfaction and loyalty. Patient loyalty is defined as a commitment that arises from the perceived value in health services utility (Moliner, 2009). Loyalty has become a top priority for business goals including in the hospital industry which focuses on two approaches, namely behavior and attitude (Chahal & Kumari, 2010), (Chang et al., 2009). The behavioral approach assesses the persistence of actions in using services, while the attitude approach focuses on the psychological side of using service (Özer et al., 2016). Patient loyalty is an important factor for the success of hospital business which can only be maintained through the delivery of quality services to increase patient value and satisfaction (Chou et al., 2019), (Fitriani et al., 2020), (Fatima et al., 2018). Hospitals that failed to understand the importance of service quality, value and patient satisfaction have a possible risk to losing patients (Andaleeb, 1998), (Padma et al., 2010), (Amin & Nasharuddin, 2013).

Attention and demands on hospital service quality are getting bigger to be able to satisfy and retain patients (Alhashem et al., 2011). Public interest in hospital services is increasing along with changes in living standards and demand for service quality. Currently, service quality is hospital needs, in addition to meeting service

standards to reduce process variations that have the potential to create errors, defects and waste, also as a strategy facing increasingly competitive market pressures (Woodard, 2005). Understanding what patients want from hospital services will improve the system and quality of service which has an impact on increasing satisfaction and the number of patient visits to the hospital (Arasli et al., 2008). Fulfilling patient expectations for service quality they receive is one of keys to success in the health care industry, especially in hospital.

Experienced perceptions of the quality of health services providing patient satisfaction are not only influenced by service quality but also by perceived value. Meanwhile, patient value is a central concept in choosing services perceived to provide the highest value among different offerings (Kotler & Keller, 2012). Hospitals are required to provide different services to increase patient value so as to create satisfaction and ultimately have an impact on patient loyalty (Permana et al., 2019). The high patient value will affect satisfaction and then increase their loyalty (Özer et al., 2016).

Patient satisfaction is considered as the main determinant in maintaining loyalty to access hospital services in long term. That mean, there is a direct proportionality between satisfaction and the retention to reuse the service as well as willingness to recommend the service. Gaur, et al. (2011) stated that even though there is an increase in public awareness of hospital services and competitive climate is getting higher, the quality of service is not enough to ensure long-term relationships between patients and hospitals (Amin & Nasharuddin, 2013), (Ranaweera & Prabhu, 2003). Therefore, the extent to which services can provide satisfaction should be understood by developing loyalty to ensure the formation of long-term commitments.

Previous studies has proven a significant relationship model between service quality, patient value, satisfaction and patient loyalty both directly and indirectly (Sidharta & Affandi, 2016), (Lim et al., 2010). This condition showed that perceptions construction of service quality, patient value, patient satisfaction and patient loyalty is a strategic issue for hospital management to plan and implement health service strategies and anticipate competition between hospitals. Jambi Province is one of 34 provinces in Indonesia located on Sumatera island with a population of 3,677,894 inhabitants. The available hospital facilities are as many as 36 hospitals. Jambi Provincial Health Office data shows that hospital inpatient visits tend to decrease from 931,347 visits in 2018 to 866,833 visits in 2019. Studies to assess the relationship model between service quality, patient value, patient satisfaction and loyalty have never been conducted in Jambi Province, and it is important to see the consistency of the validity of theoretical framework model from previous studies in different hospitals and regions. Based on the above background, researchers are interested in conducting research that aims to analyze service quality and its effect on value, satisfaction and loyalty of inpatients at hospitals in Jambi Province.

Literature Study and Hypothesis Development

Previous studies have provided an overview of the literature and concepts related to constructs of service quality, value, satisfaction, and patient loyalty building on the hypotheses described below.

Service quality, patient value, patient satisfaction and patient loyalty

Zeithaml (1988) in Chou, et al. (2019) confirms that service quality acts as a predictor of the customer's perceived product value (Chou et al., 2019), and it has a positive effect on patient value where the higher service quality will provide more positive added value of patient for the services received (Alimudin, 2017), (Surydana, 2017). Furthermore, improving service quality also creates patient satisfaction as an essential capital in the hospital industry (Alhashem et al., 2011). Patient satisfaction is an important component and a measure of quality where high service quality leads to high patient satisfaction, this showed that service quality is an antecedent factor for creating patient satisfaction (Kusniati et al., 2016), (Peer & Mpinganjira, 2011).

In addition, service quality also had an indirect effect on satisfaction through patient value (Napitupulu, 2015). Quality of service is also associated with patient loyalty which predicts variations in subsequent behavioral intentions. Many studies have found a direct positive relationship between service quality and customer loyalty in various contexts including hospital services (Shabbir et al., 2017), (Chahal & Mehta, 2013), (Shyh-Jane Li et al., 2011). Meanwhile, service quality also affects patient loyalty indirectly through providing values that patients will always remember and create patient satisfaction which ultimately build good relationships or patient loyalty (Sidharta & Affandi, 2016), (Abdelfattah et al., 2015), (Lai & Chen, 2011). Other studies have proved the value and patient satisfaction as a mediating variable of the effect of service quality on patient loyalty (Shabbir et al., 2017), (Aliman & Mohamad, 2016), (Aliman & Mohamad, 2013), (Naidu, 2009). Patient satisfaction mediate aspects of quality of health services that affect patient loyalty to revisit (Fatima et al., 2018). Based on the literature above, proposed hypothesis is as follows:

H1 : Service quality affects patient value.

H2: Service quality affects patient satisfaction.

H3: Service quality affects patient loyalty.

H4: Service quality affects patient satisfaction mediated by patient value.

H5: Service quality affects patient loyalty mediated by patient value.

H6: Service quality affects patient loyalty mediated by patient satisfaction.

H7: Service quality affects patient loyalty mediated by patient value and patient satisfaction.

Patient Value, Patient Satisfaction And Patient Loyalty

Patient value is everything the patient wants by maximizing the quality of service received compared to the costs incurred. Subsequently, patients that feel more value from service will have a high level of satisfaction, indicating that Patient satisfaction is an indicator of patient's perceived value for services received (Lim et al., 2010), (Kusniati et al., 2016), (Napitupulu, 2015). The concept of adding value for patients to health services needs to get great attention when it comes to maintaining patient loyalty. Meanwhile, patient value has a significant influence on loyalty including interest in revisiting (Logiawan & Subagio, 2014). Satisfaction also mediates the effect of patient values to build the complexity of cognitive and affective aspects on behavior such as utilization or repeat visits and other behaviors pointing to loyalty (Moliner, 2009). Several studies have proven that patient value influences return visit interest through patient satisfaction both directly and indirectly (Helmawati & Handayani, 2014), (Caruana & Fenech, 2005). The hypotheses are developed as follows:

H8: Patient value affect patient satisfaction.

H9: Patient value affects patient loyalty.

H10: Patient value affects patient loyalty mediated by patient satisfaction.

Patient Satisfaction And Patient Loyalty

Generally, researchers agree that satisfaction is the basis for forming loyalty, and emphasize the importance of patient satisfaction as a key predictor of revisit behavior. The higher the level of patient satisfaction with the services provided, the greater the retention and willingness to recommend it to others (Aliman & Mohamad, 2016). Many studies have found that patient satisfaction has a strong positive relationship with revisit interest (Chou et al., 2019), (Kusniati et al., 2016), (Abdelfattah et al., 2015), (Kim et al., 2017). The hypothesis is proposed as follows:

H11: Patient satisfaction affects patient loyalty.

Method

Research Design and Sampling

The design was a cross-sectional study conducted in 8 hospitals consisting of 6 government and 2 private hospitals. Government hospitals were selected purposively based on geographical criteria (western and eastern regions), while private hospitals were selected based on their willingness to participate. The population and sample units are patients that receive inpatient services with inclusion criteria, namely hospitalized patients for at least two days of treatment (preferably patients who are going home), able to communicate well, and not currently undergoing intensive care. The sample size is determined by the rule of thumb for estimation of the CFA model using Partial Least Square, for a minimum of ten respondents for each observed variable (Wijanto, 2008). Meanwhile, the sample was selected using a convenience sampling technique and of the 560 questionnaires distributed, only 400 were returned completely (response rate: 71.4%). Data collection was conducted from April 2021 to July 2021, and the hospital was approached for permission to conduct a survey. The purpose of the study has been explained to the respondents and on the first page of the questionnaire, an informed consent form was included.

Data Management and Analysis

A four-point Likert scale was used to measure four variable constructs, namely service quality, patient value, satisfaction and loyalty. Service quality consists of five dimensions, including the physical environment, personnel capabilities, administrative procedures, communication, privacy & safety which were adapted and developed from the previous study with 29 indicators (Fatima et al., 2018), (Kim et al., 2017), (Kondasani & Panda, 2015). Patient value consists four dimensions, namely performance, emotional, social, and price adapted from concept of "Perval" with 13 indicators (Sweeney & Soutar, 2001). Patient satisfaction consists of five dimensions, namely physician care, nursing care, health education, infrastructure, and waiting times with 11 indicators (Chahal & Mehta, 2013), (Hemadeh et al., 2018). Furthermore, patient loyalty was adjusted with about 3 indicators (Chang et al., 2009), (Fatima et al., 2018), (Aliman & Mohamad, 2016), (Kondasani & Panda, 2015). Data analysis was carried out by univariate analysis to describe characteristics of respondents and study variables, confirmatory factor analysis (CFA) to test validity and reliability of the indicators for the latent construct, and analysis of the structural equation model (SEM) to test hypotheses using Partial Least Squares-Structural Equation Model (PLS-SEM) with SmartPLS 3.0 application program.

Results and Discussions

Characteristics Of Respondents

The results of univariate analysis showed that majority of respondents were aged between 31 - 40 years (29.3%), female (51%), high school education (42.3%) and more than 60% have worked. Meanwhile, monthly household expenditures at most between > 1 million to 2.5 million rupiahs (45.5%), and majority of respondents were participants in the national health insurance (71.3%) (Table.1).

Table 1. Characteristic of Respondents (n=400)

Variable	Category	Freq	(%)
Age (years)	17 - 20	16	(4.0)
	21 - 30	101	(25.2)
	31 - 40	117	(29.3)
	41 - 50	76	(19.0)
	51 - 60	61	(15.3)
	> 60	29	(7.2)
Gender	Male	196	(49.0)
	Female	204	(51.0)
Education	No school	2	(0.5)
	Basic school	56	(14.0)
	junior high school	73	(18.3)
	high school	169	(42.3)
	PT	100	(25.0)
Work	Does not work	18	(4.5)
	Housewife	123	(30.8)
	civil servant	42	(10.5)
	Trader	21	(5.3)
	Private employees	81	(20.3)
	Farmer	64	(16.0)
	entrepreneur	22	(5.5)
	Laborer	29	(7.2)
Household Monthly Expenditure (Rp)	600.000 – 1 M	83	(20.8)
	> 1 M - 2.5 M	182	(45.5)
	> 2.5M – 5 M	116	(29.0)
	> 5 M	19	(4.8)
Patient Status	General	88	(22.0)
	National health insurance	285	(71.3)
	Private insurance	27	(6.8)

Measurement Model

CFA analysis was conducted to determining the validity and reliability of the measurement model. The final analysis of CFA can be seen in figure 1. Convergent validity test analyzed the loading factor value which represents how much the indicator can explain the latent variable construct with a standard loading factor value (> 0.7) and an average variance extracted (AVE) value with a standard value > 0.5 (Hair et al., 2006). The results showed that several variable indicators were discarded because they had a loading factor value ≤ 0.70 . The results showed that some variable indicators were discarded because they had a loading factor value of less than 0.70. In the service quality variable, 8 of the 29 indicators were discarded, namely SQ11 (adequate parking area), SQ17 (identity of hospital employees and the community is easy to distinguish), SQ27 (skilled and competent laboratory examination officer), SQ28 (skilled and timely radiology services), SQ29 (skilled and timely drug delivery services), SQ30 (nutrition service polite and pleasant), SQ34 (clear information about rules and procedures), and SQ52 (services that pay attention to patient privacy). Meanwhile, in the patient value variable was discarded 1 of 13 indicators, namely CV23 (easy and relaxed service process). The final result of CFA model found all indicators have a loading factor value > 0.7 and an AVE value > 0.5 , it showed that the indicators and variables of model construct was valid. The final analysis of the CFA model produces a path diagram as shown below (pic.1). To assess reliability of each variable dimension by calculating coefficient of Cronbach's alpha (CA) and composite reliability (CR). The final result of CFA model test obtained CA values (> 0.7) and CR (> 0.7) which met criteria requirements so that the indicators and variables of model construct were conclude to be reliable (table 2).

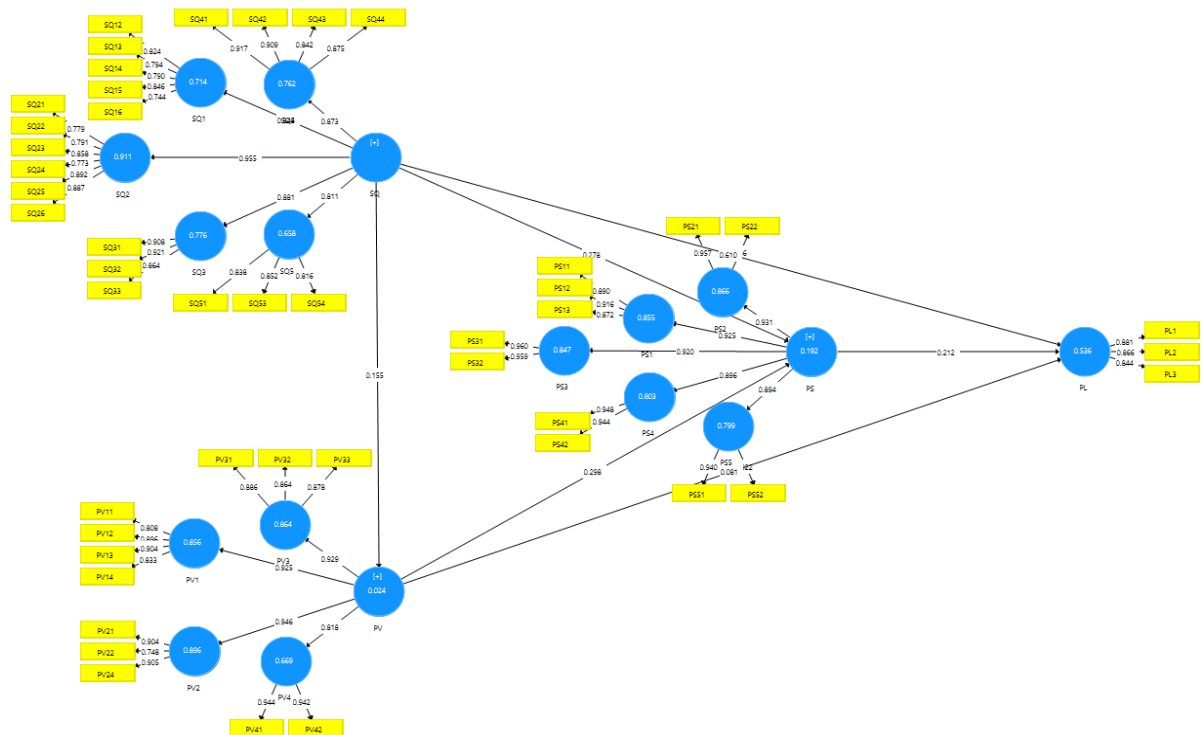


Figure 1. Diagram path CFA model final

Tabel 2. Validity and reliability of questionnaire construct and items

Construct (dimension) Question item	FL	AVE	CR	CA
Service Quality (SQ)		0.557	0.963	0.959
Physical Environment (SQ1)	0.924	0.640	0.899	0.859
Complete and modern medical equipment	0.824			
Room facilities look clean and comfortable	0.794			
Service procedure flow information is easy to see and understand	0.790			
Room information is clear and easy to identify/find	0.846			
All hospital staff/staff are well-groomed	0.744			
Competency (SQ2)	0.955	0.692	0.931	0.910
Specialist doctor visite (visit) every day	0.779			
Doctor available on time when needed	0.791			
Doctors are competent and professional in serving	0.858			
Nurses are always available when needed	0.773			
Nurses are very helpful and supportive	0.892			
Nurses provide nursing care with full attention	0.887			
Administration Procedural (SQ3)	0.881	0.807	0.926	0.880
The patient admission process is fast, clear and simple	0.908			
Service does not discriminate against patients	0.921			
Appropriate and transparent billing	0.864			
Communications (SQ4)	0.873	0.785	0.936	0.909
Doctors/officers communicate in a friendly and polite manner	0.917			
Doctors/Nurses want to listen to patient complaints	0.909			
Patients get clear and adequate information about the disease and the actions taken on it	0.842			
Doctors/officers answer patient questions satisfactorily	0.875			
Privacy and Safety (SQ5)	0.811	0.698	0.874	0.784
Officers never discuss illness in front of other patients	0.838			
Service always pays attention to patient safety	0.852			

Construct (dimension) Question item	FL	AVE	CR	CA
Patients feel safe during treatment at the hospital	0.816			
Patient Value (PV)		0.639	0.955	0.948
Performance Value (PV1)	0.925	0.741	0.920	0.883
This doctor/hospital officer is reliable	0.808			
Hospital service procedures are standardized	0.896			
Complete infrastructure	0.904			
Clear service information	0.833			
Emotional Value (PV2)	0.946	0.732	0.891	0.815
Good service impression	0.904			
Comfortable hospital environment	0.748			
Makes me feel better (heals)	0.905			
Social Value (PV3)	0.929	0.768	0.908	0.849
I am ashamed to visit the hospital (*)	0.886			
Respect every patient	0.864			
Take action with the patient's consent	0.878			
Price Value (PV4)	0.818	0.889	0.941	0.875
Affordable cost (cheap)	0.944			
Cost according to the service received	0.942			
Patient Satisfaction (PS)		0.728	0.967	0.962
Physician Care (PS1)	0.925	0.797	0.922	0.873
Doctors identify health problems accurately	0.890			
Doctor is always available on time	0.916			
Doctors work according to your expectations	0.872			
Nursing Care (PS2)	0.931	0.914	0.955	0.906
Nurses provide adequate medical care	0.957			
Nurse performance according to your expectations	0.956			
Health Education (PS3)	0.920	0.921	0.959	0.915
Services help you understand your health problems	0.960			
Makes you understand how to solve your health problems	0.959			
Facilities & Infrastructure (PS4)	0.896	0.895	0.945	0.883
Cleanliness and tidiness of the building/room in the hospital	0.948			
Completeness of service support equipment and facilities	0.944			
Waiting Time (PS5)	0.894	0.867	0.929	0.848
Waiting time to visite (doctor) to the room	0.940			
Waiting time for action/examination/operation	0.922			
Patient Loyalty (PL)		0.746	0.898	0.830
Return to this hospital if you are sick or need health services	0.881			
This hospital is my first choice	0.866			
I will encourage others to come to this hospital	0.844			

Service quality = physical environment, competency, administration procedural, communication, and privacy & safety Patient value = performance value, emotional value, social value, and price value Patient Satisfaction = physician care, nursing care, health education, facilities & infrastructure, and waiting time. FL= Factor Loading, CR=Construct reliability, AVE=Average variance extracted, CA= Cronbach's alpha. Satisfies CR > 0.7, AVE > 0.5, CA > 0.7.

Furthermore, the results of the discriminant validity test found a positive correlation between all latent variables which indicated that the model construct had met the requirements (Table. 3).

Tabel 3. Correlation between latent variables

Construct	SQ	PV	PS	PL
Service quality (SQ)	0.746			
Patient value (PV)	0.145	0.799		
Patient satisfaction(PS)	0.324	0.341	0.853	
Patient loyalty (PL)	0.692	0.249	0.438	0.864

Structural Model

The evaluation of structural model is presented as a standardized path coefficient and significance levels for hypothesis testing. The results showed that the influence between factors in the coefficient path has a significant effect ($t > 1.96$) except for the indirect effect between service quality and patient loyalty through value ($t = 1.676$). Therefore, patient value is not a mediator factor of the influence of service quality on loyalty (Table 4).

Table 4. Path coefficient results

	Path	Path Coef.	<i>t-value</i>	<i>p-value</i>
H ₁	SQ→PV	0.155	2.959	0.003
H ₂	SQ→PS	0.278	5.827	0,000
H ₃	SQ→ PL	0.610	21.321	0,000
H ₈	PV→PS	0.298	6.862	0,000
H ₉	PV→PL	0.081	2.190	0,029
H ₁₁	PS→PL	0.212	5.619	0,000
H ₄	SQ→PV→PS	0.046	2.744	0,006
H₅	SQ→PV→PL	0.013	1.676	0,094
H ₆	SQ→PS→PL	0.059	3.682	0,000
H ₇	SQ→PV→PS→PL	0.010	2.305	0,022
H ₁₀	PV→PS→PL	0.063	4.366	0,000

This study aims to investigate the validity and reliability as well as examine the effect of latent constructs using the PLS-SEM approach. It includes the effect of service quality on patient value, satisfaction, and loyalty. The analysis of the measurement model found valid and reliable indicators and variables in building the model. Furthermore, it showed that the dimensions of each variable are different constructs and have a significant relationship in building their respective latent variables. These results indicate that the measurement model is feasible and suitable to investigate patient loyalty to the hospital industry, especially in Jambi Province. The results of the structural model analysis showed that all variables have a significant influence on the endogenous variables directly, but do not apply the same to the indirect effect (see table 4).

The results of study prove that service quality has a direct and significant effect on patient value ($t=2,959$) which supports the hypothesis (H1). These findings indicate that efforts to create a higher level of hospital service quality will increase the patient's perceived value for services. Patient value is one of the indicators of the success of the hospital's marketing program closely related to service quality. This proves that patient value has an important role in the hospital business. It is an important process in increasing value for patients and this is consistent with previous studies where the higher quality of service, more it will provide positive added value for patients (Chou et al., 2019), (Alimudin, 2017), (Surydana, 2017). Hospital management should take appropriate steps to improve service quality and strengthen the patient's perceived value (Abdelfattah et al., 2015).

This study has proven that service quality has a significant effect on patient satisfaction ($t=5.827$) which supports research hypothesis (H2). Therefore, the quality of hospital services consisting of the dimensions of the physical environment, personnel capabilities, administrative procedures, communication, and privacy & safety will create higher patient satisfaction. This finding confirmed that service quality will tend to build patient satisfaction, and this is consistent with previous studies regarding the important role of the quality dimension in creating patient satisfaction (Chang et al., 2009)-(Fatima et al., 2018), (Amin & Nasharuddin, 2013)-(Permana et al., 2019), (Shyh-Jane Li et al., 2011), (Aliman & Mohamad, 2013) This study also found that service quality had an indirect effect on patient satisfaction through patient value ($t=2.744$) which supported study hypothesis (H4). This finding shows that patient satisfaction is closely related to patient value and is a measure of how well patient value have been delivered based on the quality of services provided. According to Miao (2019), satisfaction does not only reflect past experiences, but also explains the value felt on the quality of hospital services (Miao et al., 2020).

We found that service quality had a direct and significant effect on patient loyalty ($t=21,321$), and it supports the hypothesis (H3). These findings indicate that service quality is one of the determining factors in increasing overall patient loyalty, therefore, hospital managers should focus on service quality attributes as a way to find and maintain patient loyalty (Abdelfattah et al., 2015). Service quality is positively related to patient loyalty, where the better of service quality, the higher patient loyalty to reuse service to the hospital (Fatima et al., 2018), (Permana et al., 2019), (Shyh-Jane Li et al., 2011), (Aliman & Mohamad, 2013). This

study also assessed the indirect effect between service quality and loyalty through satisfaction which proved significant ($t=3.682$), and this supports the hypothesis (H5). These findings indicate that satisfaction partially mediates the relationship between perceived service quality and patient loyalty, and explains that if the patient is satisfied with the quality of service received, the stronger their intention to reuse hospital services in the future (Chang et al., 2009), (Aliman & Mohamad, 2013).

This study also proves that service quality has a significant effect on patient loyalty through patient value and satisfaction ($t=2.305$) which supports the hypothesis (H7). These results illustrate that good service quality provides a good perception of value and increases satisfaction which ultimately forms patient loyalty. The quality of service does not affect loyalty indirectly through the patient's value ($t = 1.676$), therefore, the hypothesis (H6) is rejected. These findings explain that service quality has a direct impact on patient loyalty. A patient tends to return to treatment after receiving a service that feels good without having to get satisfaction first. Patient satisfaction will be achieved when the patient gets cured, this takes a long time and repeated visits. The results of subsequent analysis found that there was a significant effect of the patient's perceived value on patient satisfaction ($t=6.862$) and loyalty ($t=2.190$), and it supports the hypotheses (H8 and H9). This study proposes four dimensions of patient value (performance, emotional, social, price) which have a significant effect on patient satisfaction and loyalty. The patient's perceived value of the services provided by the hospital is the basis for determining satisfaction and their tendency to reuse of services. It is in line with previous studies which proved that the better patient's perceived value, the higher patient's satisfaction and loyalty (Özer et al., 2016), (Permana et al., 2019), (Abdelfattah et al., 2015), (Kondasani & Panda, 2015).

This study proposes to hospital management to take initiative to take appropriate steps in order to strengthen the patient's perceived value for services to create satisfaction and gain patient loyalty in the long term. This study proposes to hospital management to take appropriate steps initiative in order to strengthen patient's perceived value for services to create satisfaction and gain patient loyalty in long term. This research also found that value has a significant influence on patient loyalty indirectly through patient satisfaction ($t=4.366$) and this result supports hypothesis (H10). This is consistent with previous studies, where the perceived value of good service will increase patient satisfaction as the basis of loyalty (Özer et al., 2016), (Fitriani et al., 2020), (Kondasani & Panda, 2015). Patient value and satisfaction are significant predictors of loyalty (Gumussoy & Koseoglu, 2016).

Furthermore, this study proves that patient satisfaction has a direct and significant effect on loyalty ($t = 5.619$), and it support the hypothesis (H11). This result is consistent with previous studies where patient satisfaction plays an important role in forming loyalty. (Chang et al., 2009), (Chou et al., 2019), (Amin & Nasharuddin, 2013), (Shyh-Jane Li et al., 2011), (Aliman & Mohamad, 2013). The hospital management should ensure maximum service to obtain high patient satisfaction. This is because of the impact on high patient loyalty by reusing hospital services. It is considered as the first choice of health care in the future, and being willing to recommend to others. Hospitals can take advantage of this research model as a self-evaluation instrument to achieve patient loyalty so as to increase hospital revenue and reputation. This study can also provide a basis for further research related to hospital services, using the development of other latent construct variables or with a longitudinal design so that the influence between variables can be obtained more accurately.

Conclusions

This study has obtained a model of patient loyalty to hospitals in Jambi Province-Indonesia influenced by perception of service quality, patient value, and satisfaction with a valid and reliable construct. This was conducted with ten significant relationship frameworks from the eleven hypothesized relationship frameworks. The model measures the application of service quality to increase the value, satisfaction and loyalty of patient. These findings have provided empirical evidence that helps hospital management practitioners in Jambi Province-Indonesia to focus on developing service quality improvement strategies that create value for patients to increase patient satisfaction as well as encourage and maintain loyalty.

Research Limitations

This study uses perception as a measure of behavior that tends to be subjective and it requires further investigation of the actual study problem, including the service provider. A further longitudinal study is needed to investigate the influence between service quality, patient value, satisfaction, and loyalty in getting treatment at the hospital. However, this study has provided strong support in the ability to predict patient loyalty to hospital care services in Jambi Province.

Ethics Approval

This study was conducted with ethical approval from the Health Research Ethics Commission of Poltekkes Jambi No. LB.02.06/2/048/2021.

Competing Interest

We declare that there is no conflict of interest affecting the presentation in this manuscript.

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