

Patient Loyalty in Healthcare: The Roles of Service Quality, Trust, And Patient Satisfaction

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ABSTRACT

The main objective of this study is to examine the factors that can predict patients' loyalty to private hospitals in Padang city, West Sumatera, Indonesia. Specifically, it aims at examining the direct and indirect relationship between service quality, trust, and patients' satisfaction. A quantitative research design was employed; the data were collected from 320 patients in three selected private hospitals with the same categories by using purposive sampling technique. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 Version. The findings of this study reveal that service quality and trust have positive and significant effects on both patient satisfaction and patient loyalty. Patient satisfaction found has a positive and significant effect on patient loyalty. In addition, patient satisfaction only mediates the effect of trust on patient loyalty. These findings highlight the importance of enhancing service quality, strengthening patient trust, and improving patient satisfaction to foster patient loyalty in private hospitals. The research highlights the important role of patient's perception of service quality and trust in establishing patients' satisfaction and loyalty. This indicates that patients in private hospitals in Padang are more concerned about service quality and trust than any other factors that are examined in this study. Therefore, it is highly recommended for private hospitals providers to concentrate more on delivering high-quality service by establishing a good standard of service quality to create positive patient's perception to generate patients' satisfaction and loyalty.

Keywords: Service Quality, Trust, Satisfaction, Loyalty

INTRODUCTION

The healthcare sector is one of the fastest-growing service industries globally, playing an essential role in improving quality of life worldwide. The demand for quality healthcare services increases as people become more aware of the importance of healthcare quality (Tiara et al., 2021). In addition, it is estimated that the global sales of the healthcare industry exceed USD 4 trillion per year (Research and Market, 2025). This indicates that, given the high growth rate of the healthcare sector, competition within this sector is increasingly intense. In Indonesia, the healthcare market is projected to reach USD 11.6 billion in 2024, with continued growth at a 6% compound annual growth rate (CAGR) through 2028. (DonoSepetro, 2025). This condition is evident in Indonesia, where the expanding healthcare market and rising patient expectations have created a more competitive environment, requiring hospitals to differentiate themselves through superior service quality, patient trust, and patient-centered care. Accordingly, service quality and trust are widely recognized as key determinants of patients' evaluations of healthcare services, which subsequently shape patient satisfaction and loyalty (Anggraini et al., 2025). Therefore, patients' evaluations of hospital service quality have become a critical

consideration for hospitals in delivering healthcare services that meet patients' needs and expectations. A positive patient's perception of treatment that they received can enhance trust, satisfaction, and loyalty (Sertan et al., 2023)

Patients with positive healthcare experiences are more likely to return to the same hospital for future services (Ahenkora et al., 2019). In addition, trust is also an important factor that can influence patient loyalty. Patient trust is formed through confidence in the hospital's ability to provide safe, honest, and reliable services. Patients who have a high level of trust tend to return to use the hospital's services and recommend them to others (Herlambang et al., 2026). However, hospital quality and trust have become a serious problem in Indonesia. Indonesia continues to be the largest market for Malaysia's medical tourism, accounting for 64.9% of the total number of medical tourists (MIDA, 2024). While 40 to 70 % from Indonesia's medical travelers were from Sumatera (Zain et al., 2021). This condition is influenced by public perceptions of better service quality, faster service processes, and communication from medical personnel that is considered clearer and more convincing (Turay et al., 2021).

LITERATURE REVIEW

Patient Loyalty

Loyalty has been an essential issue because it leads to profitability (Lai, 2019) and sustainability. In competitive healthcare market, providers must prioritize attracting new patients and retaining existing ones to remain competitive (Chen, et al., 2022). Consequently, fostering long-term loyalty is depend upon the hospitals ability to deliver excellence quality service that translates into high levels of patient satisfaction and trust (Arifin et al., 2025).

Although customer loyalty has been defined from various perspectives, it is commonly understood through two aspects, attitudinal loyalty and behavioral loyalty (Zeithaml, 1996; Oliver, 1999; Turay et al., 2021). Attitudinal loyalty reflects customers' preference and commitment toward a particular organization, whereas behavioral loyalty is demonstrated through actions such as repeat purchases, positive recommendations, and continued patronage. These dimensions are equally relevant in healthcare, where patients' loyalty may be reflected in their intention to return to a hospital and recommend its services to others. Heath (2018) reported that patient recommendations play an important role in healthcare provider selection, with 44% of patients indicating that a recommendation influenced their choice of provider.

Patient loyalty is valuable for both patients and healthcare organizations. From a hospital's perspective, retaining loyal patients can strengthen its reputation and public image, reduce the resources required to attract new patients and generate favorable word-of-mouth recommendations. These outcomes can contribute to more efficient operations and improved long-term organizational performance. Therefore, developing and maintaining patient loyalty has become an important consideration in hospital management. As well as encouraging continued patient relationships, loyalty can contribute to sustained satisfaction and the long-term viability of healthcare organizations (Purnama & Yuliaty, 2025).

Service Quality And Healthcare Service Quality

The increasing intensity of competition in the healthcare industry has compelled hospitals to deliver high-quality healthcare services. In addition, patients' growing awareness and understanding of the importance of quality healthcare have raised their expectations for higher standards of service from healthcare providers (Fatima et al., 2018). Accordingly, to achieve long-term success, hospitals must prioritize building positive patient perceptions of healthcare quality, as these perceptions have a significant influence on overall patient satisfaction (Ahmed et al., 2017).

In general context, Service quality refers to customers' overall evaluation of the excellence of services provided by an organization (Zeithaml, 1988). It is determined by comparing customers' expectations with their perceptions of the actual service performance (Parasuraman et al., 1988). Parasuraman et al. (1985) initially developed the SERVQUAL model with 97 measurement items across ten service quality dimensions: reliability, communication, competence, credibility, security, courtesy, understanding the customer, access, tangibles, and

responsiveness. Subsequent empirical analysis revealed conceptual overlap among these dimensions, leading to the refinement of the instrument into 22 items representing five core dimensions: reliability, responsiveness, assurance, empathy, and tangibles. Validation across multiple service industries demonstrated that these five dimensions provide a reliable and valid framework for assessing patients' perceptions of service quality (Jonkisz et al., 2022).

In the same vein, Grönroos (1984), a prominent scholar of the Nordic school, conceptualized service quality through three interrelated dimensions: technical quality, functional quality, and corporate image. Technical quality concerns the final outcome received by customers, whereas functional quality emphasizes the manner in which the service is provided. Because service quality is formed through customer–provider interactions, customers assess both the outcome and the service delivery process, with functional quality playing a central role in shaping their overall evaluation.

Within the healthcare context, service quality is conceptualized as a healthcare provider capacity to deliver care that consistently meets or exceeds patient expectations while adhering to established clinical and professional standards. Therefore, healthcare providers can gain more comprehensive and actionable insights into patient needs by systematically aligning service delivery with patient expectations (Sari et al., 2023). Consequently, patients' perceptions of service quality have become a strategic factor influencing patient satisfaction and long-term hospital performance (Ahmed et al., 2017). Consistent delivery of high-quality healthcare services fosters patient trust, loyalty, and stronger patient–provider relationships. Therefore, improving service quality not only enhances immediate patient satisfaction but also builds sustainable relationships that support long-term organizational success.

Trust

Commitment and trust are the essential factors that establish and maintain valuable relationships (Brown et al., 2019). In the healthcare context, trust refers to the mutual relationship between patients and healthcare providers, whereby patients hold positive expectations regarding the competence, reliability, and integrity of the healthcare services they received (Huang et al., 2021). A trusting and supportive relationship between patients and healthcare providers can contribute to positive healthcare experiences and improved health outcomes (Turay et al., 2022). Patient trust emphasizes the patient's belief that the doctors have the skills for diagnosis and treatment, and can give priority to the interests of patients, so that patients accept the medical services with confidence (Liu et al., 2021). Trust can be categorized into cognitive and affective trust. Cognitive trust refers to the customer's confidence established on the basis of rational judgment and relevant experience or knowledge. Affective or emotional trust is based on patients' intuition and emotions rather than rational evaluation (Huang et al., 2021). Patient trust develops when the healthcare services received meet or exceed patients' expectations. Conversely, when these expectations are not fulfilled, patients are more likely to experience dissatisfaction and lose trust in the healthcare provider (Choi et al., 2017). Patient satisfaction is also shaped by previous healthcare experiences. Satisfied patients are more likely to return and continue using the same healthcare services, whereas dissatisfied patients are more likely to switch to alternative healthcare providers (Setiawan & Nugroho, 2023).

Based on these perspectives, patient trust can be defined as patients' confidence in the reliability and quality of healthcare services, which develops through their healthcare experiences. Trust increases when the services received meet or exceed patients' expectations, leading to greater satisfaction and a stronger intention to continue using the healthcare provider's services. In contrast, when services fail to meet patients' expectations, dissatisfaction may occur, reducing trust and making patients less likely to return to the same healthcare provider.

Patients' Satisfaction

In the service context, customer satisfaction is related to customer attitudes and the perception of service received (Cronin and Taylor, 1992; Preziosi et al., 2022). Customer satisfaction can be defined several ways. According to Kotler et al., (2012), Customer satisfaction refers to an individual's level of pleasure or disappointment arising from a comparison between the perceived performance of a product or service and their prior expectations. Grounded from expectation disconfirmation theory, (1980) mentioned that customer satisfaction is the feeling that results from comparing customers' expectations with their actual experience or perceived performance

(Oliver, 1980). Based on the conceptual definition above, patient satisfaction refers to patients' overall evaluation of their healthcare experience based on the comparison between their expectations and actual healthcare service experiences. Patients' satisfaction occurs when healthcare services meet or exceed patients' expectations, while unmet expectations may lead to patients' dissatisfaction.

Patients' satisfaction is one of the important indicators of healthcare quality (Friede et al., 2023) and one of the crucial outcomes in healthcare services (Mulugeta et al., 2019). In this context, patient satisfaction is not only used as a measure of service success but also becomes the primary goal in improving the quality of healthcare services. Every patient who receives healthcare services certainly has expectations regarding the quality of services provided (Lee, 2019). In this manner, ensuring the quality of healthcare services is essential to meet patients' needs and expectations of healthcare service they received. Patient satisfaction is formed through a learning process based on previous experiences. If patients are satisfied with the services provided, they tend to repeat the experience. However, if they are dissatisfied, they will avoid the same services in the future (Anggraini et al., 2025).

This study examines satisfaction as a mediator in the relationship between service quality, trust and customer loyalty. As Caruana (2002) observed, satisfaction can link customers' perceptions of service quality with their loyalty towards a service provider. Satisfied customers are more likely to return and use the service again, maintaining their relationship with the provider. Huga and Tan (2024) found that service quality positively influences satisfaction, and that satisfaction positively related to loyalty. Their findings suggest that satisfaction can help to explain how favorable perceptions of service quality may lead to loyal behavior. Similarly, Widiastuti et al. (2024) reported that service quality increased customer satisfaction which give contribution to loyalty. In addition, Kadir et al. (2023) also revealed that satisfaction plays an essential in the relationship between service quality and loyalty, reflecting customers' overall assessment of their experience of the service. Additionally, Sakina and Yafiz (2023) emphasized the significance of satisfaction in the context of trust and service quality. Overall, these findings suggest that satisfaction can act as an important link between service quality, trust, and loyalty, particularly when customers perceive that their expectations meet the service received.

Hypotheses

The Effect Of Service Quality On Patient Loyalty

As discussed in the above discussion, service quality is defined as a healthcare provider's ability to deliver services that meet patients' needs and expectations. High-quality hospital services can encourage patients to revisit the hospital, recommend it to others, and spread positive words to others (Giovanis et al., 2018). Anggraini et al. (2025) and Laila (2024) found that service quality has a positive and significant effect on patient loyalty. Arman et al. (2023) and Singh et al. (2024) also confirmed that service quality is an important factor in building patient loyalty. Indartono (2024) also showed that the five SERVQUAL dimensions are relevant to the development of patient loyalty. In the hospital setting, patients who have positive perceptions of the services provided may be more willing to return to the same hospital and recommend it to others. Drawing on these previous findings, the following hypothesis is proposed:

H₁: Service quality has a positive and significant effect on patient loyalty.

The Effect Of Trust On Patient Loyalty

Patient trust reflects patients' confidence in a hospital's competence, integrity, and reliability. The higher the level of trust, the more likely patients are to continue using the hospital's services. Patient trust can strengthen loyalty by encouraging patients to maintain their relationship with a healthcare provider and reducing their tendency to consider alternative providers. It may also increase patients' willingness to recommend the hospital to others (Huang et al., 2019; Liu et al., 2021). Previous studies show that trust has a positive and significant effect on patient loyalty (Herlambang et al., 2026; Anggraini et al., 2025). Furthermore, Renaldo and Antonio (2024) found that trust is developed through healthcare interactions and plays an essential role in strengthening patient loyalty. Based on this explanation, the proposed hypothesis two (H₂) is formulated:

H₂: Trust has a positive and significant effect on patient loyalty.

The Effect Of Service Quality On Satisfaction

Good service quality will provide positive experiences for patients, thereby creating satisfaction with the services received. Patients will feel satisfied when the services provided meet or even exceed their expectations, both in terms of facilities, service speed, friendliness of medical personnel, and service accuracy. The better the service quality provided by the hospital, the higher the level of patient satisfaction. Based on the study conducted by Anggraini et al. (2025), service quality has a positive effect on patient satisfaction. This relationship is heavily reinforced by Ursula and Saryatmo (2024), who identified that service quality dimensions namely reliability, responsiveness, empathy, assurance, and tangibility exert a positive and significant impact on patient satisfaction. Afkarina et al. (2025) also concluded that a high standard of hospital service quality directly influences patient satisfaction. Therefore, the proposed hypothesis is:

H₃: Service quality has a positive and significant effect on satisfaction.

The Effect Of Trust On Satisfaction

The literature review above, indicates that patient trust is the reflection of patients' confidence in a hospital's competence, integrity, and reliability (Shie et al., 2022). Patient trust is an important factor in shaping how patients respond to the services provided by a hospital. When patients trust a hospital has the ability to provide safe, reliable, and professional care, they are more likely to feel satisfied with their treatment and overall service experience. Herlambang et al. (2026) found that patient trust has a positive effect on satisfaction. Arman et al. (2023) similarly showed that satisfying clinical experiences bridge the gap between perceived service delivery and true long-term institutional loyalty. Based on this explanation, the proposed hypothesis is:

H₄: Trust has a positive and significant effect on satisfaction.

The Effect Of Satisfaction On Patient Loyalty

Previous research has found that satisfaction is a predictor of patients' loyalty. Herlambang et al. (2026) showed that satisfaction has a positive and significant effect on patient loyalty. Similarly, Arman et al. (2023) and Singh et al. (2024) emphasized that patient satisfaction is a key factor in determining patient loyalty. More recent research by Hasjim et al. (2024) has also shown that higher patient satisfaction significantly impacts patients' behavioral intentions and loyalty. In addition, Aladwan et al. (2021) suggest that satisfied patients are more likely to remain loyal to a healthcare provider and recommend its services to others. Based on these findings, the following hypothesis is proposed:

H₅: Satisfaction has a positive and significant effect on patient loyalty.

Patients Satisfaction Mediate The Relationship Between Service Quality And Patients' Loyalty

The literature above suggests that delivering high-quality healthcare services can increase patients' satisfaction and, consequently, strengthen their loyalty to the hospital. Patients with positive service experiences are more likely to return for future services and recommend the hospital to others. Anggraini et al. (2025) found that patient satisfaction mediates the relationship between service quality and patient loyalty. This relationship is supported by Afkarina et al. (2025), who found that service quality significantly influences patient loyalty through patient satisfaction. Similarly, Arman et al. (2023) also found that patient satisfaction strengthens the relationship between service quality and long-term patient loyalty. Based on these findings, the following hypothesis is proposed:

H₆: Patient satisfaction mediates the relationship between service quality and patient loyalty.

The Effect Of Trust On Loyalty Through Satisfaction

Patient trust in hospitals will increase patient satisfaction with the services received. Patients who feel satisfied because they trust hospital services tend to become loyal and continue using the hospital's services. Therefore,

satisfaction can act as a mediating variable in the relationship between trust and patient loyalty. The study by Herlambang et al., (2026) shows that satisfaction is able to mediate the effect of trust on patient loyalty. This mechanism is further reinforced by Andreano and Pardede (2023), whose findings proved that patient satisfaction serves as a vital mediating mechanism that effectively transforms patient trust into strong patient loyalty. Renaldo and Antonio (2024) also found that the cumulative experience of trust and outcome quality converts satisfied patients into a highly loyal customer base. Based on this explanation, the proposed hypothesis is:

H₇: Trust has a positive and significant effect on patient loyalty through satisfaction.

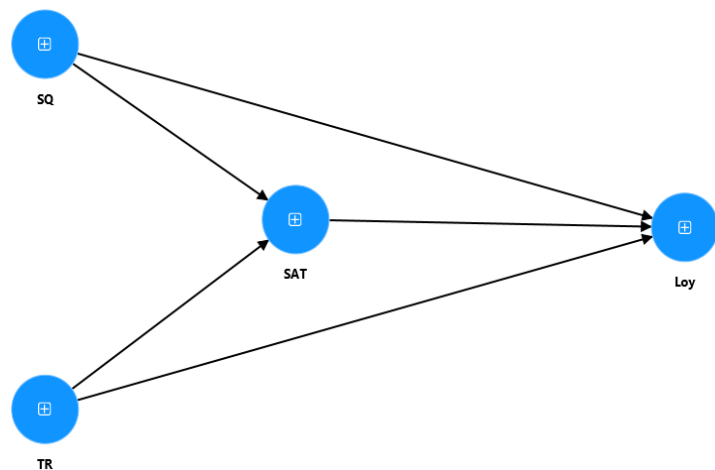


Figure 1. Research Model

METHOD

This study employed a quantitative research design to empirically examine the relationships among service quality, trust, patient satisfaction, and patient loyalty. Data were collected through self-administered questionnaires administered to 320 patients selected using a purposive sampling technique from three private hospitals in Padang City. However, the identities of the three hospitals were kept confidential. The sample size exceeded the minimum requirement recommended by Hair et al. (2010), thereby providing an adequate basis for statistical analysis. The measurement items were adapted from established instruments in the extant literature and assessed using a six-point Likert scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Service quality was operationalized using the 22-item SERVQUAL scale developed by Parasuraman et al. (1998), encompassing five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Trust and patient satisfaction were measured using indicators adapted from Kotler and Keller (2016). Trust was operationalized through the dimensions of credibility, reliability, and honesty, whereas patient satisfaction was assessed based on expectation conformity, emotional response, and overall service experience. Finally, patient loyalty was measured through four indicators: repurchase intention, word-of-mouth recommendation, and resistance to switching. Collectively, these established measurement dimensions provided a comprehensive assessment of the constructs examined in the study.

RESULTS

The data analysis technique in this study uses Structural Equation Modeling (SEM) with the assistance of SmartPLS software. The analysis is conducted through the outer model evaluation, which includes validity and reliability tests, as well as the inner model evaluation to examine relationships between variables and test the research hypotheses. In addition, a mediation test is also conducted to determine the role of satisfaction in mediating the effect of service quality and trust on loyalty.

Before conducting data analysis with the PLS 4.0 version, this study performed several screening tests to identify if there were any issues found with the data. The tests performed such as multicollinearity, heteroscedasticity

and Respondents' achievement level. The results of these screening tests confirmed that the data in this study is of high quality and reliable

Respondent Demographics

Based on research data obtained from 320 respondents, it is known that the majority of respondents were female, totaling 172 people (53.7%), while male respondents accounted for 148 people (46.3%). In terms of age, respondents were dominated by the 31–40 years age group (34.7%), followed by the 21–30 years group (30.3%), the 41–50 years group (22.2%), and those above 50 years old (12.8%), indicating that most respondents were in the productive and adult age range. Regarding education level, the majority of respondents had a high school/vocational high school education (36.9%), followed by bachelor's degree holders (29.4%), diploma holders (16.3%), junior high school graduates (7.5%), postgraduate degree holders (6.3%), and elementary school graduates (3.8%).

Furthermore, in terms of monthly income, the largest proportion of respondents (42.5%) reported earning between IDR 3,000,000 and IDR 8,000,000, followed by those earning less than IDR 3,000,000 (36.9%). Meanwhile, 15.0% reported incomes ranging from IDR 8,000,000 to IDR 13,000,000, and only 5.6% earned more than IDR 13,000,000. Regarding patient status, the majority of respondents were outpatients (71.3%), while inpatients represented 28.7% of the sample. In terms of geography, the largest proportion of respondents were from Padang City (33.8%), followed by Agam Regency (7.5%), Bukittinggi City (6.9%), and Padang Pariaman Regency (6.3%). The remaining respondents were distributed across other areas in West Sumatera, reflecting a geographically diverse sample, with the largest concentration originating from Padang City.

Measurement Model

Measurement model validation is an essential step in PLS-SEM to ensure the validity and reliability of the constructs. Reflective and formative constructs require different assessment procedures (Ali et al., 2018). For reflective constructs, convergent validity is assessed using outer loadings, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE), while discriminant validity is assessed using the Fornell-Larcker criterion, cross-loadings, and HTMT (Hair et al., 2016, 2019). Recommended thresholds are 0.70 for loadings, Cronbach's alpha and CR, and 0.50 for AVE. For formative constructs, indicator weights and collinearity (VIF) are assessed (Hair et al., 2016). Following the assessment, one empathy item was deleted due to an inadequate loading. The remaining reflective indicators demonstrated satisfactory validity and reliability. In terms of the convergent validity of the reflective measure, Hair et al. (2019) state that the item loadings must be greater than 0.70, and that Cronbach's alpha and composite reliability (CR) should also be greater than 0.70. Furthermore, the average variance extracted (AVE) must be greater than 0.50 (Ali et al., 2018). After assessing the reflective indicators, one item from the empathy construct was deleted as it did not meet these criteria. Ultimately, the results show that all the reflective measure items have adequate values.

Table 1 Convergent validity of First Order Reflective Measurement

Model Construct	Indicators	Outer Loading	CA	Rho A	CR	AVE
Reliability	REL1	0.889	0.943	0.944	0.957	0.816
	REL2	0.904				
	REL3	0.904				
	REL4	0.914				
	REL5	0.904				
Responsiveness	RES1	0.906	0.932	0.932	0.951	0.830
	RES2	0.910				
	RES3	0.910				
	RES4	0.919				
Assurance	ASS1	0.881	0.910	0.911	0.937	0.787
	ASS2	0.889				
	ASS3	0.891				

	ASS4	0.888				
	EMP1	0.876	0.881	0.890	0.918	0.737
Emphaty	EMP2	0.904				
	EMP3	0.842				
	EMP4	0.811				
Tangible	TAN1	0.841	0.856	0.873	0.901	0.695
	TAN2	0.857				
	TAN3	0.821				
	TAN4	0.814				
Trust	TRU1	0.883	0.860	0.862	0.915	0.782
	TRU2	0.868				
	TRU3	0.902				
Satisfaction	SAT1	0.920	0.876	0.876	0.924	0.801
	SAT2	0.894				
	SAT3	0.871				
Loyalty	LOY1	0.911	0.941	0.945	0.955	0.810
	LOY2	0.913				
	LOY3	0.881				
	LOY4	0.917				
	LOY5	0.875				

Discriminant validity indicates whether a construct is sufficiently different from other constructs in the proposed model (Hair et al., 2019). It is established when each indicator loads more strongly on its intended construct than on any other construct. In this study, discriminant validity for the reflective constructs were assessed using Fornell Larcker, HTMT, and Cross-loadings, with the results presented in Table 2

Table 2 Fornell Larcker

	ASS	EMP	LOY	REL	RES	SAT	TAN	TRU
ASS	0.886							
EMP	0.821	0.798						
LOY	0.450	0.641	0.900					
REL	0.825	0.723	0.444	0.898				
RES	0.828	0.715	0.406	0.805	0.915			
SAT	0.182	0.306	0.416	0.154	0.122	0.895		
TAN	0.577	0.720	0.739	0.552	0.499	0.402	0.818	
TRU	0.193	0.313	0.425	0.121	0.136	0.610	0.416	0.884

Diagonals (in bold) represent the square root if the average variance extracted (AVE) while the off diagonals are correlations among constructs. Diagonal elements should be larger than off-diagonals element.

Table 3 HTMT

	ASS	EMP	LOY	REL	RES	SAT	TAN	TRU
ASS								
EMP	0.893							
LOY	0.482	0.775						
REL	0.891	0.780	0.471					
RES	0.897	0.770	0.432	0.854				
SAT	0.204	0.377	0.457	0.170	0.135			
TAN	0.649	0.880	0.854	0.614	0.557	0.473		
TRU	0.219	0.379	0.469	0.134	0.152	0.702	0.497	

HTMT Value <0.90 (Hair et al., 2017)

Table 4 Cross Loading

	REL	RES	ASS	EMP	TAN	LOY	SAT	TRU
REL1	0.889	0.833	0.858	0.728	0.517	0.365	0.139	0.109
REL2	0.904	0.833	0.843	0.783	0.604	0.452	0.206	0.167
REL3	0.904	0.846	0.826	0.788	0.619	0.482	0.140	0.187
REL4	0.914	0.886	0.787	0.763	0.571	0.462	0.153	0.179
REL5	0.904	0.840	0.806	0.712	0.565	0.438	0.183	0.178
RES1	0.847	0.906	0.835	0.713	0.479	0.334	0.159	0.160
RES2	0.853	0.910	0.829	0.758	0.549	0.380	0.161	0.177
RES3	0.851	0.910	0.832	0.771	0.569	0.412	0.128	0.154
RES4	0.870	0.919	0.818	0.764	0.565	0.441	0.144	0.159
ASS1	0.775	0.784	0.881	0.668	0.448	0.324	0.131	0.142
ASS2	0.829	0.836	0.889	0.795	0.584	0.426	0.179	0.180
ASS3	0.844	0.828	0.891	0.825	0.593	0.451	0.141	0.178
ASS4	0.786	0.777	0.888	0.824	0.559	0.433	0.214	0.203
EMP1	0.798	0.786	0.853	0.876	0.609	0.482	0.253	0.260
EMP2	0.796	0.790	0.852	0.904	0.624	0.493	0.252	0.266
EMP3	0.645	0.625	0.652	0.842	0.742	0.566	0.180	0.297
EMP4	0.608	0.609	0.632	0.811	0.742	0.542	0.330	0.284
TAN1	0.522	0.499	0.545	0.705	0.841	0.512	0.371	0.357
TAN2	0.630	0.610	0.609	0.757	0.857	0.522	0.313	0.356
TAN3	0.464	0.405	0.424	0.553	0.821	0.809	0.349	0.378
TAN4	0.477	0.423	0.441	0.544	0.814	0.772	0.347	0.393
LOY1	0.487	0.442	0.483	0.610	0.734	0.911	0.373	0.441
LOY2	0.428	0.380	0.404	0.545	0.700	0.913	0.349	0.389
LOY3	0.434	0.376	0.395	0.502	0.649	0.881	0.343	0.326
LOY4	0.424	0.367	0.396	0.550	0.680	0.917	0.437	0.399
LOY5	0.415	0.365	0.394	0.487	0.647	0.875	0.366	0.344
SAT1	0.182	0.177	0.181	0.266	0.347	0.335	0.920	0.551
SAT2	0.166	0.137	0.176	0.250	0.344	0.386	0.894	0.521
SAT3	0.141	0.123	0.148	0.272	0.408	0.395	0.871	0.565
TRU1	0.169	0.148	0.168	0.298	0.393	0.379	0.556	0.883
TRU2	0.185	0.199	0.209	0.311	0.416	0.357	0.515	0.868
TRU3	0.130	0.128	0.152	0.242	0.364	0.390	0.548	0.902

Assessment Of Second-Order Formative Construct

Higher-order models, commonly referred to as hierarchical component models (HCMs), are applied to represent multidimensional constructs comprising multiple lower-order dimensions (Ringle et al., 2012). In this study, service quality is conceptualized as a higher-order construct comprising five dimensions: reliability, assurance, tangibles, empathy, and responsiveness. Higher-order modelling combines these lower-order components into a single, more straightforward, multidimensional construct, thereby enhancing the parsimony of the research model (Hair et al., 2016).

The results of the PLS assessment regarding the outer weights of the second-order indicators are presented in Table 3 below. According to Ramayah, Chuah and Memon (2018), the outer weights of the second-order

formative construct indicators are significant at the two-tailed t-value of >1.960 and P-value of <0.05 . Higher-order models, also referred to as hierarchical component models (HCMs), are used to assess multidimensional constructs comprising multiple lower-order components (Ringle et al., 2012). In this study, service quality is conceptualized as a higher-order construct comprising five dimensions: reliability, assurance, tangible, empathy, and responsiveness. Higher-order modelling combines these lower-order components into a single multidimensional higher-order construct, thereby simplifying the complexity of the research model and enhancing its parsimony (Hair et al., 2016).

The result of the PLS assessment regarding the outer weight of second-order indicators is captured in Table 3 below. According to Ramayah, Chuah, and Memon (2018), the outer weight of second-order indicators of the formative constructs are significant at two-tailed ($t\text{-value}>1.960$) and $P\text{-value}<0.05$.

Table 5 Assessment of Formative Second-order Construct

Formative Second Order Construct	Indicators	Outer Weight	Std-Error	T-Value	P-Value	VIF
Service Quality	REL	0,191	0,007	25.423	0.000	3.173
	RES	0,169	0,009	18.462	0.000	3.751
	TAN	0,317	0,024	13.359	0.000	1.564
	ASS	0,183	0,008	22.177	0.000	2.851
	EMP	0,246	0,009	26.980	0.000	2.480

Outer weight >0.1 , T-value > 1.960 , two-tailed, P-Value <5

Assessment Of Structural Model

To evaluate the structural model, the assessments of structural model collinearity (VIF), coefficient of determination (R^2), effect size (f^2), and cross-validated-redundancy (Q^2) need to be assessed (Hair et al., 2016). The results showed that all VIF values were below the recommended threshold of 5 as it was suggested by Hair et al. (2011) and Ghazali (2021). The coefficient of determination (R^2) was also examined to determine the extent to which the endogenous variables were explained by their respective exogenous variables. The R^2 value for patient loyalty (LOY) was 0.473. This indicates that 47.3% of the variance in the LOY latent construct is explained by the three exogenous latent constructs, namely SQ, TR and SAT. The R^2 value of SAT was 0.381. The results showed that 38.1% of the variance in SAT is explained by two exogenous constructs (SQ and TR). The remaining 52.7% of LOY and 61.9% of SAT were attributable to factors not included in the research model.

The results regarding f^2 reveal that the impacts of service quality on loyalty ($f^2 = 0.495$) and trust on satisfaction ($f^2 = 0.480$) are substantial. However, effect size between SAT and LOY ($f^2 = 0.030$), SQ and SAT ($f^2 = 0.019$) and the effect size TR and LOY (0.027) represented minor contributions (Hair et al., 2014; Cohen, 1988). Furthermore, the calculated Q^2 values of 0.381 for loyalty and 0.303 for satisfaction confirm the model's robust predictive capacity, as both scores significantly larger than zero threshold (Geiser, 1974; Hair et al., 2016).

Hypothesis Testing

The structural model testing was evaluated using the PLS-SEM algorithm to determine the path coefficients. Subsequently, bootstrapping with 5,000 subsamples was performed to examine the statistical significance of the proposed relationships. The analysis employed a 5% significance level with a one-tailed test. A direct relationship was regarded as significant when the t-value is greater than 1.645 and the P-value below 0.05. Meanwhile, an indirect effect (mediation effect) is considered significant if the t-value is greater than 1.96 and P-value is less than 0.05 on the tested mediation path. According to Hair et al. (2019) and Ghazali (2021), testing direct and indirect effects in PLS-SEM is carried out using the bootstrapping procedure to determine the significance of relationships between constructs in the research model. The results of the hypothesis testing are presented in Table 4 and Table 5 below.

Table 6 Hypothesis Testing Direct Effect

Hypothesis	Path	β	Standard Error	T-values	P-values	Remark
H1	SQ -> LOY	0.542	0.045	11.951	0.000	Accepted
H2	TR -> LOY	0.154	0.058	2.649	0.004	Accepted
H3	SQ -> SAT	0.115	0.050	2.307	0.011	Accepted
H4	TR -> SAT	0.574	0.046	12.395	0.000	Accepted
H5	SAT -> LOY	0.160	0.058	2.760	0.003	Accepted

Significant at T-value>1.645, one-tailed, P-Value<0.05

Table 7 Hypothesis Testing Indirect Effect

Hypothesis	Path	β	Standard Error	T-values	P-values	Remark
H6	SQ -> SAT -> LOY	0.018	0.011	1.697	0.090	Rejected
H7	TR -> SAT -> LOY	0.092	0.035	2.608	0.009	Accepted

Significant critical t-value>1.960, two-tailed, p-value<0.05

DISCUSSION

The results of the hypothesis 1 proved that service quality has a positive and significant effect on patient loyalty, with a β value (0.542) and t-value of 11.951 > 1.645 with P-value= 0.000 < 0.05. These results suggest that the better the quality of service provided by a hospital, the higher the patients' loyalty to that hospital. Fast, accurate, and comfortable service, supported by adequate facilities, can create a positive experience for patients, making them willing to return to the hospital and recommend it to others. These findings align with the research by Anggraini et al. (2025) and Laila (2024), who found that service quality has a positive and significant effect on patient loyalty. Furthermore, this strong direct effect is heavily backed by Indartono, (2024) who emphasized that excellent service quality serves as a primary driver that directly builds robust patient loyalty in healthcare setups. Arman et al., (2023) and Singh et al., (2024) also stated that perceived high-quality clinical and non-clinical care creates a solid foundation for patients to remain loyal to specific healthcare providers without looking for alternatives. The findings of this study are strongly supported by various international literatures from around the world. In the Western context, Nilsen et al., (2023) asserted that perceived service quality in private healthcare systems is the primary determinant in long-term patient evaluation, where clinical excellence and technical infrastructure directly dictate patient loyalty. Aligning with this, research in South Asia by Khan and Ahmed, (2024) in Pakistan demonstrates that improvements in physical infrastructure quality combined with the empathy of frontline staff are key drivers that empirically retain patient loyalty in the private health sector. Furthermore, in highly competitive and high-tech medical markets such as South Korea, Park and Kim (2025) found that service quality dimensions focusing on digital convenience and seamless patient-centered medical journeys prove to be crucial factors underlying patients' repeat-visit intentions (loyalty).

The results of the study also indicate that trust has a positive and significant effect on patient loyalty (H2) with a β value of 0.154, and t-value 2.649 > 1.645 and a P-value = 0.004 < 0.05 This suggests that the higher the level of patient trust in the hospital, the higher the level of patient loyalty. Patients' trust in the hospital's ability to provide safe, honest, and reliable services makes them confident in continuing to use the hospital's services. These findings support the research by Herlambang et al., (2026) and Anggraini et al. (2025), who found that trust has a positive and significant effect on patient loyalty. Additionally, this relationship is supported by Renaldo & Antonio, (2024) whose study demonstrated that trustworthiness embedded during healthcare encounters significantly influences long-term patient loyalty. Andreano and Pardede, (2023) similarly observed that when patient trust is successfully established, it inherently ensures high patient retention and repeat visits to healthcare facilities. These empirical findings are supported by global empirical studies that view trust as the core foundation of patient retention. In the Western context, Meyer and Turner (2024) stated that institutional trust acts as a psychological buffer in medical choices, where patients rely heavily on the systemic integrity of private clinics to maintain their long-term loyalty. This is also confirmed in Pakistan through a study by Riaz

and Mahmood (2023) which demonstrates that patient trust built upon the transparency of medical costs and the visible clinical competence of doctors is the primary determinant of sustained patient loyalty. Additionally, an East Asian study by Lee and Choi (2024) in South Korea emphasizes that patient loyalty in competitive medical hubs is highly correlated with maintaining trust in the ethical standards of medical personnel and hospital reputation.

Furthermore, service quality has a positive and significant effect on satisfaction, with a β value (0.115), t-value of $2.307 > 1.645$, and a P-value $0.011 < 0.05$. These findings align with the research by Anggraini et al. (2025), which states that service quality has a positive effect on patient satisfaction. This direct path is strongly reinforced by Ursula and Saryatmo (2024), who discovered that all major service quality dimensions namely reliability, responsiveness, empathy, assurance, and tangibility exert a significant positive impact on generating patient satisfaction. Afkarina et al., (2024) also concluded that improving administrative and medical registration quality directly increases patient satisfaction levels. Garrett and Johnston (2024) demonstrated that satisfaction functions as a primary evaluative summary that significantly emerges when the quality of the actual clinical encounter successfully exceeds patients' baseline expectations. From the East Asian region, Shin and Moon (2025) in South Korea also supported these results, stating that the management of non-clinical service quality, such as the friendliness of nursing staff and the comfort of waiting rooms, exerts a massive influence on enhancing patients' psychological satisfaction indicators during their care. In this respect, the findings indicate that good service quality contributes to patient satisfaction. Patients are more likely to feel satisfied when the services they receive meet or exceed their expectations across the various dimensions of service quality.

The results of the subsequent analysis indicate that trust has a positive and significant effect on satisfaction, with a β value of 0.574, t-value of $12.395 > 1.645$ and a P-value = $0.000 < 0.05$. This suggests that patients' trust in the hospital enhances their satisfaction with the care they receive. When patients feel confident in the hospital's professionalism and credibility, they will feel more comfortable and satisfied when using healthcare services. These findings supported by the research by Herlambang et al., (2026), which found that trust has a positive effect on satisfaction. This substantial impact is highly compatible with the findings of Singh et al. (2024), whose empirical data proved that institutional trust plays a monumental role in shaping patient satisfaction within healthcare settings. Andreano and Pardede (2023) also confirmed that trust acts as a vital structural component required to optimize overall patient satisfaction during medical treatment. Riaz and Mahmood (2023) in Pakistan, who noted that when healthcare facilities fulfill their promises regarding patient safety, patients experience a peace of mind that becomes the highest driver of service satisfaction. Furthermore, Lee and Choi (2024) in their research in South Korea also asserted a similar point, where trust is positioned as a primary structural component; in the absence of trust in the doctor's competence, other elements of physical quality will not be able to optimize the total satisfaction of patients experiencing anxiety.

In addition, satisfaction has a positive and significant effect on patient loyalty, with a β value of 0.160, t-value $2.760 > 1.645$ and P-value = $0.003 < 0.05$. This indicates that patients who are satisfied with hospital services are more likely to return and recommend the hospital to others. Patient satisfaction is a crucial factor in building long-term relationships between patients and hospitals. These findings align with the research by Nurlatifah et al. (2026), which proposed that satisfaction has a positive and significant effect on patient loyalty. This aligns with Arman et al. (2023), who highlight patient satisfaction as one of the most critical predictors of long-term loyalty. In addition, Hasjim et al., (2024) suggested that solid evidence that higher customer satisfaction directly increases positive behavioral intentions and patient commitment to the facility. Edwards and Vance (2024) in their healthcare infrastructure modeling in Western countries, stated that the accumulation of satisfying experiences functions as a strategic asset that builds patient switching resistance amid intense market competition. In developing countries such as Pakistan Ali and Hussain (2024) also supported these results by demonstrating that post-treatment patient satisfaction is a critical threshold that transforms regular patients into loyal advocates who voluntarily spread word-of-mouth recommendations within their communities.

The indirect effect analysis showed that satisfaction did not significantly mediate the relationship between service quality and patient loyalty, as indicated by a t-value = $1.697 < 1.960$ two tail and a P-value = $0.090 > 0.05$. This value confirms that hypothesis 6 is rejected. This finding suggests that positive perceptions of service quality and satisfaction alone may not be sufficient to translate into patient loyalty, which is consistent with the argument that satisfaction does not always lead to loyalty (Wu, Li, & Li, 2018). Furthermore, Dubey and Sahu

(2019) emphasized that perceived value plays an important role in strengthening customer loyalty. Thus, patients' evaluations of the overall value received from healthcare services may be an additional factor that explains the development of loyalty beyond satisfaction. In the same vein, Singh et al. (2024) found that perceived service quality had a strong and significant direct effect on patient loyalty without the mediating role patient satisfaction.

This study also found that satisfaction was not able to mediate the effect of service quality on patient loyalty, with t -value of $1.697 < 1.960$ and P -value = $0.090 > 0.05$. This finding in line with the notion that satisfaction is not always translated to loyalty (Wu, Li, & Li, 2018). In addition, Dubey & Sahu (2019) mentioned that perceived value is recognized as the variable that has an important role in customer loyalty enhancement. Edwards and Vance (2024), in their healthcare management study explained that when patients encounter highly excellent medical infrastructure and objective clinical accuracy, they remain loyal purely due to the functional utility value of the service, rendering the transient aspect of emotional satisfaction unnecessary to experience. This indicates that patient loyalty is more directly influenced by service quality than through patient satisfaction. In this respect, hypothesis H₆ is rejected. Nevertheless, these findings contradict those of the studies conducted by Anggraini et al. (2025) and Afkarina et al. (2025), which found that satisfaction mediates the effect of service quality on patient loyalty. In this support of the interpretation, Singh et al. (2024) demonstrate that in medical settings, perceived service quality has such a dominant and compelling direct effect on patients' loyalty purely based on the objective quality of healthcare infrastructure and professional clinical outcomes. This make satisfaction is not always become a mediator for loyalty.

Accordingly, Edwards and Vance (2024) argue that in Western healthcare settings, patients' evaluations of advanced medical infrastructure and clinical accuracy directly foster behavioral commitment through the practical benefits of service provision. In such contexts, these functional utilities have a more significant and immediate impact on institutional loyalty than transient emotional responses. Extending this rationale to private hospital environments, Rehman and Malik (2024) demonstrate that physician reliability and emergency responsiveness directly drive transactional loyalty, as healthcare consumers prioritize risk mitigation, operational efficiency and systemic reliability over evaluations of satisfaction. This aligns with broader service literature emphasizing that, in complex, high-involvement service sectors, superior functional execution directly governs re-patronage intentions by mitigating perceived clinical risk (Hennig-Thurau et al., 2023). Together, these theoretical insights imply that when a healthcare institution consistently provides high-quality, effective care, the resulting functional advantages bypass the need for emotional satisfaction, instead operating through a direct structural pathway to foster patient loyalty. When applied to private hospitals in Padang City, showed that private hospitals patients in Padang City are highly rational. If they perceive the service to be reliable and safe, they will become loyal immediately, without first evaluating their level of satisfaction.

Meanwhile, this study found that patient satisfaction mediates the relationship between trust and patient loyalty, with an indirect effect (β) of 0.092, a t -value of $2.608 > 1.960$, and a P -value of $0.009 < 0.05$. This finding indicates that patients' trust in the hospital enhances their satisfaction, which subsequently strengthens their loyalty. The empirical result confirms that patient trust serves as a foundational psychological bridge, whereby confidence in the institution's clinical integrity and ethical standards effectively converts into long-term commitment via the fulfillment of satisfaction (Wahyuningsih et al., 2023).

The result supports by Herlambang et al. (2026), who similarly found that patient satisfaction mediates the relationship between trust and patient loyalty. Consistent with this finding, Andreano and Pardede (2023) proved that satisfaction serves as an important mechanism through which patients' initial trust is translated into behavioral loyalty. Renaldo and Antonio (2024) further suggested that institutional trustworthiness can foster patients' sense of security and satisfaction, thereby strengthening long-term commitment and loyalty. Similarly, Jung and Sung (2025) found that higher levels of trust can reduce patients perceived risk during healthcare encounters, which may enhance their satisfaction and shape their continued patronage. Overall, these findings suggest that, trust influences patient loyalty not only directly but also indirectly by strengthening patient satisfaction.

CONCLUSION

This study confirms that service quality, patient trust, and satisfaction are foundational pillars for fostering long-term loyalty in healthcare settings (Liu et al., 2021). Based on the research findings, it can be concluded that service quality and trust have a positive and significant effect on patient loyalty at private hospitals in Padang. This indicates that the better the service quality and the higher the level of patient trust in the hospital, the greater the patient loyalty will be. In addition, service quality and trust also have a positive and significant effect on satisfaction. Patients who receive good service and have trust in the hospital tend to feel more satisfied with the care they receive. The research findings also show that satisfaction has a positive and significant effect on patient loyalty. Thus, patient satisfaction is a crucial factor in fostering long-term relationships between patients and the hospital. In the mediation model, customer satisfaction did not mediate the relationship between service quality and patient loyalty, indicating a direct behavioral pathway in which patients' evaluations of functional service quality translate into loyalty without necessarily relying on satisfaction. In contrast, customer satisfaction significantly mediated the relationship between patient trust and patient loyalty. This divergence suggests that service quality may strengthen loyalty primarily through direct evaluations of functional benefits and reduced perceived risk, whereas trust may influence loyalty through an affective process in which greater confidence in the hospital enhances satisfaction, which subsequently strengthens patients' long-term loyalty.

Suggestion

Based on the research findings, private hospitals in Padang are advised to continue improving the quality of their services in order to create a positive experience for patients. Service quality can be improved by streamlining service processes, enhancing the friendliness and communication skills of medical staff, and providing more comfortable and modern healthcare facilities, thereby increasing patient satisfaction and loyalty to the hospital. In addition, hospitals also need to build patient trust by providing professional, safe, honest, and transparent care. Patient trust can be built through accurate diagnoses, transparency regarding medical information, and consistent care. As patient trust increases, so too will patient satisfaction and loyalty.

Hospitals are also advised to conduct regular patient satisfaction evaluations through surveys or suggestion boxes to identify patients' complaints and expectations regarding the services provided. The results of these evaluations can be used to inform improvements and decision-making aimed at enhancing the quality of healthcare services. Hospitals are also advised to regularly evaluate patient satisfaction by conducting surveys or by using suggestion boxes. This allows them to identify complaints and expectations regarding the services they provide. These results can then be used to inform improvements and decision-making aimed at enhancing the quality of healthcare services. Furthermore, management should utilize digital platforms and post-treatment communication channels to encourage consistent patient engagement, as such initiatives have been shown to significantly increase perceived value and long-term loyalty (Nguyen et al., 2021). Future research may employ longitudinal approaches to explore whether shifts in patient expectations alter the strength and persistence of trust in fostering patient loyalty over time (Arman et al., 2023).

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REFERENCE:

1. Afkarina, I. I., Gusti, T. E., & Dewi, A. T. (2024). Peran Kepuasan Pasien Sebagai Variabel Mediasi Pengaruh Mutu Pelayanan Pendaftaran Rawat Jalan Terhadap Loyalitas Pasien Peserta BPJS Non PBI Di RS " X " Kecamatan Tulangan Kabupaten Sidoarjo Tahun 2023-2024. 9(2), 338–349.

2. Ahenkora, K., Armah, E., Santuoh, F., Sarpong, T., & Atakro, C. (2019). Patients as strategic partners in hospital settings: Trust, participation, relational value, and loyalty. *Journal of Hospital Administration*, 8(5), 1–9. <https://doi.org/10.5430/jha.v8n5p1>
3. Aladwan, M. A., Salleh, H. S., Anuar, M. M., ALhwadi, H., & Almomani, I. (2021). relationship among service quality, patient satisfaction and patient loyalty: case study in Jordan Mafraq hospital. *Linguistics and Culture Review*, 5, 27–40. <https://doi.org/10.21744/lingcure.v5ns3.1368>
4. Ali, S., & Hussain, M. (2024). Word-of-mouth dynamics and long-term patient retention in private healthcare delivery systems. *Journal of Relationship Marketing*, 23(1), 34–55.
5. Anggraini, S., Yuliaty, F., Malik, R., & Nugroho, T. (2025). Pengaruh Kualitas Layanan , Kepercayaan dan Citra Klinik terhadap Loyalitas Pasien melalui Kepuasan Pasien di Klinik Pratama Kartika 0729 Bantul Yogyakarta. 5(2), 912–925.
6. Arifin, N. Z., Karyanti, D., & Susanti, C. E. (2025). The influence of service quality on patient loyalty through satisfaction and trust: Literature review. *Technium Soc. Sci. J.*, 69, 291.
7. Arman, R. A., Pasinringi, S. A., Rivai, F., Sidin, A. I., Muhammad, L., & Sidin, A. I. (2023). The Effect of Service Quality and Patient Satisfaction Toward Patient Loyalty in Special Regional Hospitals of South Sulawesi. 15(3), 443–449.
8. Brown, M., Pope, N., & Voges, K. (2019). The role of trust and commitment in relationship marketing. *Journal of Relationship Marketing*, 18(4), 285–302.
9. Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36 (7/8), 811–828. DOI: 10.1108/03090560210430818.
10. Chen, X., Zhao, W., Yuan, J., Qin, W., Zhang, Y., & Zhang, Y. (2022). The relationships between patient experience with nursing care, patient satisfaction and patient loyalty: a structural equation modeling. *Patient preference and adherence*, 3173-3183.
11. Choi, S., Lee, Y., & Kim, S. (2017). The impact of service quality on trust and satisfaction in healthcare: A study of Korean hospitals. *Journal of Healthcare Management*, 42(3), 210-221.
12. Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A re-examination and extension. *Journal of Marketing*, <https://doi.org/10.1177/002224299205600304>
13. Dayan, M., Al Kuwaiti, I. A., Husain, Z., Ng, P. Y., & Dayan, A. (2022). Factors influencing patient loyalty to outpatient medical services: an empirical analysis of the UAE's government healthcare system. *International Journal of Quality & Reliability Management*, 39(1), 176-203.
14. Donosepoetro, D. (2025, October 1). Indonesia's healthcare moment is now. *The Business Times*.
15. Dubey, P., & Sahu, S. K. (2019). Effect of service quality on perceived value, satisfaction and loyalty of customers: a study on selected hospitals of Chhattisgarh. *Int J Comput Sci and Eng*, 55-62.
16. Edwards, P., & Vance, C. (2024). Strategic loyalty modeling in private health infrastructure: Managing switching resistance. *Journal of Marketing Theory and Practice*, 32(3), 289–304.
17. El Garem, R. A. A., Fouad, A., & Mohamed, H. (2024). Factors associated with patient loyalty in private healthcare sector in Egypt. *Journal of Humanities and Applied Social Sciences*, 6(2), 181-206.
18. Friedel, A. L., Siegel, S., Kirstein, C. F., Gerigk, M., Bingel, U., Diehl, A., ... & Kreitschmann-Andermahr, I. (2023, March). Measuring patient experience and patient satisfaction—how are we doing it and why does it matter? A comparison of European and US American approaches. In *Healthcare* (Vol. 11, No. 6, p. 797). MDPI.
19. Giovanis, A., Pierrakos, G., Rizomyliotis, I., & Binioris, S. (2018). Assessing service quality and customer behavioral responses in hospital outpatient services: A formative measurement approach. *International Journal of Quality and Service Sciences*, 10(2), 98-116.
20. Garrett, L., & Johnston, M. (2024). Expectation disconfirmation and the mechanics of patient satisfaction in private specialized clinics. *Health Care Management Review*, 49(2), 104–115.
21. Ghozali, I. (2021). Partial Least Squares Konsep, Teknik Dan Aplikasi Menggunakan Program SmartPLS 3.2.9 Untuk Penelitian Empiris. Semarang : Badan Penerbit Universitas Diponegoro.
22. Grönroos, C. (1984). A implications. *European service Journal quality of* <https://doi.org/10.1108/EUM0000000004784> model and its marketing marketing, 18(4), 36-44.
23. Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications.

24. Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123. <https://doi.org/10.1108/EBR-11 2018-0203>
25. Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7).
26. Hasjim, R., & Arifin, A. (2024). The Influence of Patient Satisfaction on the Loyalty of Inpatient Patients at Dr . Tajuddin Chalid Hospital Makassar City Year 2023. 16(2), 436–441.
27. Heath, S. (2018, December 18). Patient Experience Drives Patient Loyalty Over Standard Marketing. Patient Engagement <https://patientengagementhit.com/news/patient-experience-drives-patient-loyalty-over-standrad-marketing>
28. Hennig-Thurau, T., Groth, M., & Gremler, D. D. (2023). Functional performance versus emotional satisfaction in high-involvement service industries. *Journal of Service Research*, 26(3), 345–362.
29. Herlambang, T., & Sanosra, A. (2026). Analisis Kualitas Layanan dan Kepercayaan terhadap Loyalitas Pasien dengan Kepuasan Pasien sebagai Variabel Intervening. 11(1), 28–38.
30. Huang, I. C., Du, P. L., Lin, L. S., Liu, T. Y., Lin, T. F., & Huang, W. C. (2021). The effect of perceived value, trust, and commitment on patient loyalty in Taiwan. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 58, 00469580211007217.
31. Huga, S., & Tan, P. H. P. (2024). The relationship between hospital service quality and patient trust is mediated by patient satisfaction in patient loyalty at Hospital X. *Syntax Literate*, 9(7), 3811–3818.
32. Indartono, S. (2024). Islamic Service Quality and Patient Loyalty : Investigating the Role of Satisfaction in Healthcare Contexts. 12(2), 538–555. <https://doi.org/10.33019/society.v12i2.723>
33. Jonkisz, A., Karniej, P., & Krasowska, D. (2022). The SERVQUAL method as an assessment tool of the quality of medical services in selected Asian countries. *International Journal of Environmental Research and Public Health*, 19(13), 7831. <https://doi.org/10.3390/ijerph19137831>
34. Kadir, A., Paly, M. B., & Abdullah, M. W. (2023). Customer Loyalty Islamic Banks in Indonesia: Service Quality Which Mediated by Satisfaction and Customer Trust. *International Journal of Professional Business Review*, 8(4). <https://doi.org/10.26668/businessreview/2023.v8i4.1286>
35. Kartika, S. Sumijatun, & Y. P. S. (2023). Pengaruh Persepsi Mutu Pelayanan Terhadap Loyalitas Pasien Rawat Jalan di Rumah Sakit Karya Medika Bantar Gebang Tahun 2023. **J. Manaj. dan Adm. Rumah Sakit Indones.**, 7(4), 314– 325.
36. Khan, M. A., & Ahmed, S. (2024). Evaluating healthcare service quality dimensions and patient outcomes in public and private sector hospitals. *International Journal of Quality & Reliability Management*, 41(2), 145–163.j
37. Kim, S. Y., & Moon, S. J. (2024). Validating the trust-satisfaction-loyalty chain in private healthcare institutions: An East Asian perspective. *Asia Pacific Journal of Marketing and Logistics*, 36(4), 892–910.
38. Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.
39. Kotler, P. dan K. L. K. (2019). *Manajemen Pemasaran Edisi ke Tigabelas Jilid 1*. Erlangga, Jakarta.
40. Kotler, P., Keller, K. L., & Chernev, A. (2022). *Marketing management* (16th ed.). Pearson.
41. Lai, I. K. W. (2019). Hotel image and reputation on building customer loyalty: An empirical study in Macau. *Journal of Hospitality and Tourism Management*, 38, 111-121. <https://doi.org/10.1016/j.jhtm.2019.01.003>
42. Laila, F. N., & Paramarta, V. (2024). Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal) Pengaruh Kualitas Pelayanan Pada Kepuasan Pasien Dan Konsekuensinya Terhadap Loyalitas di Rumah Sakit 1Universitas Sangga Buana Bandung Jurnal Kesehatan Ilmiah Indonesia (Indonesi. 9(2).
43. Lee, S. W., & Choi, D. H. (2024). Building institutional trust in competitive medical markets: The role of reputation and physician ethics. *Journal of Business Research*, 162, 113–125.
44. Lee, D. H. (2019). A model for designing healthcare service based on the patient experience. *International Journal of Healthcare Management*, 12(3), 180–188. <https://doi.org 10.1080/20479700.201 7.1359956>.
45. Liu, S., Li, G., Liu, N., & Hongwei, W. (2021). The impact of patient satisfaction on patient loyalty with the mediating effect of patient trust. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 58, 00469580211007221.
46. Meyer, T., & Turner, R. (2024). Trust as a structural determinant of health choice in private clinical network frameworks. *Social Science & Medicine*, 318, 115–129.

47. Mulugeta, Henok, Wagnew, Fasil, Dessie, Getenet, Biresaw, Henok, & Habtewold, T. D. (2019). Patient satisfaction with nursing care in Ethiopia: A systematic review and meta-analysis. *BMC Nursing*, 18(1), 1–12. <https://doi.org/10.1186/s12912019-0348-9> Nawaro.
48. Nguyen, N. X., Tran, K., & Nguyen, T. A. (2021). Impact of service quality on in-patients' satisfaction, perceived value, and customer loyalty: A mixed-methods study from a developing country. *Patient preference and adherence*, 2523-2538.
49. N.Sari,R.T.Desty, & L. A. (2023). Hubungan Kualitas Pelayanan Kesehatan terhadap Loyalitas Pasien Non Asuransi di Rumah Sakit X Purwodadi. Indonesia. *J. Heal. Community*, 4(2), 58.
50. Nilsen, P., Western, J., & Smith, K. (2023). Patient-centered care metrics and perceived service quality in European private health systems. *Health Policy*, 127(4), 312–324.
51. Nurlatifah, N., Herlambang, T., & Sanosra, A. (2026). Analisis kualitas layanan dan kepercayaan terhadap loyalitas pasien dengan kepuasan pasien sebagai variabel intervening. *Jurnal Penelitian IPTEKS*, 11(1), 28–38
52. Malaysian Investment Development Authority. (2024, September 19). Indonesia remains largest contributor to Malaysia's medical tourism market
53. Oliver, R. L. (1999). Whence consumer loyalty? *The Journal of Marketing*, 33-44.
54. P.Puryanti & M. Muhadi. (2020). Analisis Pengaruh Kualitas Pelayanan terhadap Tingkat Loyalitas Pasien Rawat Jalan di RS. Surabaya. **JI-KES (Jurnal Ilmu Kesehatan)**, 3(2), 51–55.
55. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1998). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
56. Parasuraman, A., Zeithaml, V.A. and Berry, L.L., (1985) A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50.
57. Park, J. H., & Kim, Y. M. (2025). The digitization of healthcare service quality: Evidence from specialized clinics in Seoul. *International Journal of Healthcare Management*, 18(1), 78–89.
58. Pillipus Resar Andreano, R. P. (2023). Service Quality And Patient Trust On Patient Loyalty. 2684–2692.
59. Preziosi, M., Acampora, A., Lucchetti, M. C., & Merli, R. (2022). Delighting hotel guests with sustainability: Revamping importance-performance analysis in the light of the three-factor theory of customer satisfaction. *Sustainability*, 14(6), 3575. <https://doi.org/10.3390/su14063575>
60. Purnama, E., & Yuliaty, F. (2025). Studi Literatur : Faktor Kualitas Pelayanan terhadap Loyalitas Pasien di Rumah Sakit Indonesia. 5(1), 50–60.
61. Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469. <https://doi.org/10.1177/002224378001700405>
62. Rahmanti, Ainnur, & Pamungkas, K. A. S. (2022). Jurnal jufdikes. *Jurnal Fisioterapi Dan Ilmu Kesehatan Sisthana*, 4(2), 36–43.
63. Rehman, A. U., & Malik, M. S. (2024). Bypassing patient satisfaction: How core service quality drives direct patient loyalty in private tertiary healthcare. *Pakistan Journal of Commerce and Social Sciences*, 18(1), 112–131.
64. Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated and practical guide to statistical analysis. Singapore: Pearson.
65. Renaldo, D., & Antonio, F. (2024). The Relationship Between Patient Experience And Patient Loyalty Mediated By Trustworthiness And Outcome Quality In Healthcare Services : A Case At Private Clinic In Batam. 12.
66. Research and Markets. (2025). SGLT2 inhibitors market—Global industry size, share, trends, opportunity and forecast, 2020–2030F. Research and Markets.
67. Riaz, A., & Mahmood, Z. (2023). Dimensions of patient trust in private healthcare facilities: An empirical investigation from Pakistan. *Journal of Health Organization and Management*, 37(5), 589–606.
68. Rsia Surachman, S. S., & Agustina, F. (2023). Pengaruh Kualitas Pelayanan dan Kepuasan Pasien terhadap Loyalitas Pasien Rawat Jalan Di RSIA Kartini Padalarang. 6(2), 421–429.
69. Sakina, F., & Yafiz, M. (2023). Using Customer Satisfaction as a Mediating Variable to Boost Service Quality and Build Trust in Repeat Business. *JURNAL MANAJEMEN BISNIS*, 10(1), 44–56. <https://doi.org/10.33096/jmb.v10i1.468>

70. Sertan, A., Çek, K., Öñiz, A., & Özgören, M. (2023, April). The influence of medicine approaches on patient trust, satisfaction, and loyalty. In *Healthcare* (Vol. 11, No. 9, p. 1254). MDPI.
71. Setiawan, D., & Nugroho, A. (2023). Factors influencing patient loyalty in healthcare services: Evidence from Indonesian clinics. *Journal of Healthcare Management*, 40(2), 115-123.
72. Shin, J. Y., & Moon, S. H. (2025). Emotional labor of medical staff and its ultimate impact on customer satisfaction metrics. *Asian Nursing Research*, 19(1), 45–53.
73. Singh, R. P., Hidayat, W. G. P. A., & Purnamaningsih, P. (2024). The Impact of Perceived Service Quality , Trust , and Hospital Image on Patient Satisfaction and Patient Loyalty. *XXV*(2022), 2783–2798.
74. Siti Nur Aini, Siti Nur Aini, & Juli Selvi Yanti, J. S. Y. (2021). Asuhan Kebidanan Pada Ibu Hamil Dengan Anemia Ringan Di Pmb Hj. Dince Safrina Tahun 2020. *Jurnal Kebidanan Terkini (Current Midwifery Journal)*, 1(1), 32–44. <https://doi.org/10.25311/jkt/vol1.iss1.312>.
75. Turay, T., Mokhtar, S. S. M., Salimon, M. G., & Azman, H. A. (2022). The Level of Indonesia's Patient's Confidence Toward Private Hospital in Malaysia. *Malaysian Journal of Business and Economics (MJBE)*, 9(1), 101-108.
76. Turay, Tiara. (2021). The effect of service quality, fairness, reputation and perceived value on patient's loyalty in Malaysian Private Hospitals. Othman Yeop Abdullah Graduate School of Business: Universiti Utara Malaysia.
77. Ursula, F. B., & Saryatmo, M. A. (2024). Studi mengenai kualitas layanan terhadap kepuasan pasien di rumah sakit RSUD K.R.M.T Wongsonegoro. *Jurnal Manajemen Bisnis dan Kewirausahaan*, 8(1), 138–149. <https://doi.org/10.24912/jmbk.v8i1.28407>
78. Vance, C. R., & Gallagher, D. E. (2024). Patient trust and behavioral commitment: The indispensable role of emotional satisfaction as a psychological bridge. *Journal of Business Research*, 168, 114–129.
79. Wahyuningsih, E., Mariyanti, T., & Hatta, Z. M. (2023). Patient satisfaction mediates the influence of trust, service quality and hospital sharia compliance on patient loyalty in Sharia hospitals in Riau province from an Islamic perspective. *International Journal of Research in Business and Social Science*, 12(9), 39–59. <https://doi.org/10.20525/ijrbs.v12i9.2988>
80. Widiastuti, et al. (2024). Islamic service quality and patient loyalty: Investigating the role of satisfaction in healthcare contexts. *Society*, 12(2), 543–558. <https://doi.org/10.33019/society.v12i2.723>
81. Zain, N. A. M., Connell, J., Zahari, M. S. M., & Hanafiah, M. H. (2022). Intra-regional medical tourism demand in Malaysia: a qualitative study of Indonesian medical tourists' rationale and preferences. *The Malaysian Journal of Medical Sciences: MJMS*, 29(2), 138.
82. Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioural consequences of service quality. *the Journal of Marketing*, 31-46. <https://doi.org/10.1177/002224299606000203>