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THE MEDIATION ROLE OF PATIENT SATISFACTION ON THE INFLUENCE OF DOCTOR COMPETENCY QUALITY, SERVICE QUALITY, AND SHARED DECISION MAKING ON PATIENT COMPLIANCE TOWARDS SURGERY RECOMMENDATIONS AT EKA HOSPITAL, BEKASI

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Abstract

This study aims to examine the influence of Doctor Competence Quality, Service Quality, and Shared Decision Making (SDM) on Patient Satisfaction, as well as the impact of Patient Satisfaction on Patient Compliance at Eka Hospital Bekasi, with a focus on the mediating role of Patient Satisfaction. Data were collected from 125 respondents using a quantitative approach and analyzed through Partial Least Squares - Structural Equation Modelling (PLS-SEM). The findings reveal that Service Quality and Shared Decision Making significantly and positively influence Patient Satisfaction, whereas Doctor Competence Quality does not exert a significant effect. Moreover, Patient Satisfaction positively and significantly influences Patient Compliance. The mediating role of Patient Satisfaction is significant only in the relationship between Shared Decision Making and Patient Compliance, while it is not significant in the relationships involving Doctor Competence Quality and Service Quality. These findings underscore the critical role of engaging patients in shared medical decision-making processes to enhance satisfaction and compliance, while further research is warranted to explore the contributions of service quality and doctor competence in fostering patient compliance.

Keywords: Patient Satisfaction, Patient Adherence, Doctors' Competence Quality, Service Quality, Shared Decision-Making

INTRODUCTION

Patient satisfaction with healthcare services has been globally recognized as a key indicator of service quality. Satisfied patients are more likely to adhere to medical recommendations and achieve better health outcomes. Outpatient clinics serve as an essential entry point for patients in receiving medical services. For instance, Ekaterina et al. (2017) highlighted that patient satisfaction measurement can be used as an indicator of hospital service quality, particularly in outpatient services at general hospitals. They emphasized the importance of patient experience during the initial interaction in outpatient care, which shapes their perception of service quality.

Meanwhile, Zakaria et al. (2024) specifically examined physicians' communication behavior in influencing patient satisfaction in primary care facilities in Bangladesh. Their study demonstrated that the way physicians communicate significantly affects patient satisfaction, which ultimately impacts patient decisions to follow medical recommendations or pursue further treatment.

In Indonesia, outpatient services play a central role in healthcare delivery, where most patients first interact with physicians in outpatient clinics before making significant decisions regarding surgery or further treatment. Based on data from the Ministry of Health in 2023, trends in patient satisfaction with outpatient services in Indonesia continue to increase. Indonesia Health Profile 2023 reported that 78% of patients expressed satisfaction with outpatient service quality, particularly related to improved facilities, reduced waiting times, and better physician communication (Indonesia Health Profile, 2023). The Minister of Health Regulation No. 43/2016 stipulates that the minimum service standard for patient satisfaction must exceed 95% (Ministry of Health, Republic of Indonesia, 2016). However, data show that patient satisfaction levels in some regions remain far below this standard.

Research by Latupuno (2016) found that only 42.8% of patients at Central Maluku General Hospital were satisfied with the services received. Similar findings were reported by Sari (2016), who observed that in West Sumatra, only 44.4% of patients expressed satisfaction with hospital services. Such dissatisfaction often drives patients to switch to other hospitals perceived to provide better services (Andaleeb, 2001). In the context of the healthcare industry, this phenomenon can lead to patient dropouts, resulting in high opportunity costs for hospitals in terms of financial loss and service reputation (Zeithaml et al., 2020).

There are still challenges that must be addressed, particularly regarding communication patterns and clear, comprehensible medical explanations. One significant challenge in outpatient services is the high rate of patient dropouts or those who do not continue treatment after receiving medical recommendations. Tevis et al. (2019) pointed out that patient uncertainty about medical procedures, including limited understanding of the benefits and risks of recommended procedures, is one of the main causes of dropouts. Meanwhile, Widjaja et al. (2017) found that concerns related to cost also play an important role in patients' decisions not to return or undergo recommended procedures.

Data from several hospitals in Indonesia indicate that approximately 10–15% of patients do not return or fail to undergo recommended procedures, including surgery. This indicates a need for improvement in patient communication and education.

Patient satisfaction has a direct influence on medical decisions. Elwyn et al. (2012) demonstrated that patients who are satisfied with physician communication are more likely to comply with medical recommendations, including undergoing necessary surgical procedures. Another study by Brabers et al. (2017) highlighted that patients who receive adequate and appropriate information tend to be more confident and committed to their treatment plans. These findings underscore the importance of service quality and communication in building patient trust toward physicians and the healthcare system.

Communication patterns between physicians and patients represent a crucial factor influencing patient satisfaction. Studies show that patients who are actively involved in open discussions about treatment options and risks tend to be more satisfied with their medical decisions (Zolnierek and DiMatteo, 2009). In Indonesia, communication trends still show challenges in delivering comprehensive information. Many physicians continue to adopt a one-way approach in explaining diagnoses and treatment plans, providing limited space for patients to actively participate in decision-making (Sacks et al., 2015).

The average physician–patient consultation time in Indonesian outpatient clinics ranges from 10 to 15 minutes per session. This limited time is often insufficient to thoroughly discuss the patient's condition, treatment options, and implications of recommended procedures (Bleustein et al., 2014). Shorter consultations frequently lead to suboptimal communication and inadequate explanation of surgical risks and benefits. This may reduce patient satisfaction and increase anxiety when making medical decisions.

The distribution of healthcare quality in Indonesia varies widely, especially between urban and rural areas. Facilities in major cities such as Jakarta and Surabaya tend to be better equipped and more organized, with shorter waiting times and improved service quality compared to remote regions. This gap reflects the government's ongoing challenge to ensure equal access to quality healthcare services, particularly in areas with limited infrastructure and human resources (Indonesia Health Profile, 2023).

According to Sacks et al. (2015), improving healthcare quality in Indonesia remains a complex task due to resource limitations, underdeveloped health infrastructure, and unequal distribution of medical personnel. Government programs such as BPJS Kesehatan and community health centers (Puskesmas) have improved access, but quality issues persist, especially in outpatient and primary healthcare facilities. Additionally, ensuring that patients fully understand the medical information provided remains a critical challenge.

Hospitals, as healthcare providers, need to enhance service quality to maintain competitiveness. One way to remain competitive is by improving patient satisfaction through enhanced outpatient care. In a highly competitive healthcare landscape, hospitals that offer more satisfying services, including effective communication and faster service, are more capable of attracting and retaining patients. Effective management of outpatient unit performance is therefore a key factor in strengthening hospital competitiveness and overall performance.

Aligned with Indonesia's Vision 2045, which aims for Indonesia to become one of the strongest global economies, the healthcare sector is a critical component requiring improvement. Expansion and enhancement of outpatient and other healthcare services will become a foundational step in achieving this vision. With a large population, business potential in the healthcare sector is substantial. As public awareness of healthcare quality rises, the demand for efficient and high-quality outpatient services continues to grow. This

provides opportunities for the development of healthcare business models that enhance Indonesian hospitals' competitiveness at the international level (Lans et al., 2023).

Research has shown that patient satisfaction is significantly correlated with patient adherence to medical recommendations. Tevis et al. (2019) showed that patients who are satisfied with the healthcare services they receive are more likely to comply with physician instructions, including undergoing recommended surgery. Widjaja et al. (2017) supported this finding by indicating that dissatisfied patients tend to be non-adherent or delay recommended treatment, which may worsen their health conditions. This research is expected to provide a significant contribution to improving the healthcare service system in Indonesia and increasing patient adherence to treatment plans. As competition in the healthcare sector continues to grow, improving the quality of outpatient services may serve as a critical strategy for hospitals to maintain their competitiveness.

REVIEW OF LITERATURE

Patient Satisfaction

Patient satisfaction is a key indicator in measuring healthcare service quality. It has evolved into a comprehensive parameter that captures multiple dimensions of patient experience throughout medical care (Otani et al., 2011). Patient satisfaction reflects patients' perceptions of their interactions with medical personnel, healthcare facilities, waiting times, and perceived clinical outcomes (Bleustein et al., 2014). It is widely used as a primary metric for evaluating hospital and clinic performance, and serves as an essential tool for ongoing quality improvement strategies (Alibrandi et al., 2023).

Physician Competence Quality

Physician competence is one of the major determinants of patient satisfaction. Competence encompasses both clinical expertise and interpersonal skills that strongly influence how patients perceive the care they receive. Patients who believe their physicians possess adequate medical knowledge and communicate clearly are more likely to feel satisfied and trust the treatment plan provided (Otani et al., 2011). In surgical contexts, competence is measured not only by technical proficiency, but also by the ability to provide emotional support and explain risks and benefits of treatment options in detail (Sacks et al., 2015).

Service Quality

Service quality is a critical determinant in shaping positive patient experiences and ensuring safe, effective, and efficient healthcare delivery. It covers physical infrastructure, availability of medical equipment, and the implementation of evidence-based technologies. The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988) assesses service quality by measuring the gap between patient expectations and their perceptions of received services. The model consists of five core dimensions known as RATER: reliability, assurance, tangibles, empathy, and responsiveness. Service quality results from an overall evaluation comparing expectations prior to service and actual patient experiences (Parasuraman et al., 1988).

Shared Decision Making

Shared Decision-Making (SDM) is a collaborative healthcare approach that actively involves patients in medical decision-making. SDM promotes transparency and recognizes patient values and personal preferences as equal to clinical expertise when choosing appropriate treatment options (Elwyn et al., 2012). This approach is particularly relevant for complex decisions such as elective surgery, where potential benefits and risks must be carefully considered by the patient.

Patient Adherence

Patient adherence refers to the extent to which individuals follow medical instructions and recommended health behaviors provided by physicians, nurses, or other healthcare professionals. The term originates from the concept of "obedience," meaning compliance with rules or guidance (Alam, 2021). Adherence reflects how consistently a patient performs prescribed treatments, medication regimens, and lifestyle recommendations necessary to achieve optimal health outcomes (Pratama, 2021).

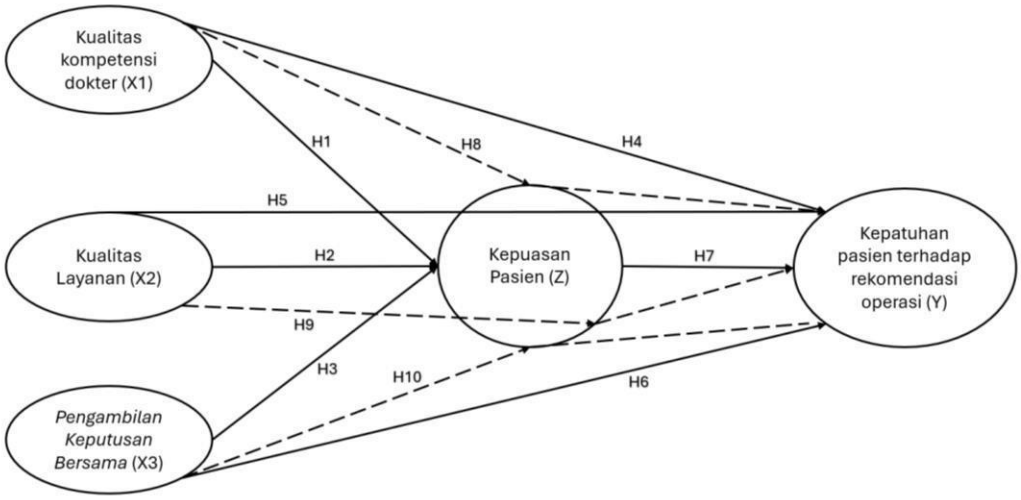

Figure 1.
Conceptual Framework

H1: Physician Competence Quality has a positive effect on patient satisfaction.
H2: Service Quality has a positive effect on patient satisfaction.
H3: Shared Decision-Making has a positive effect on patient satisfaction.
H4: Patient satisfaction has a positive effect on patient adherence.
H5: Physician Competence Quality has a positive effect on patient adherence.
H6: Service Quality has a positive effect on patient adherence.
H7: Shared Decision-Making has a positive effect on patient adherence.
H8: Physician Competence Quality has a positive effect on patient adherence mediated by patient satisfaction.
H9: Service Quality has a positive effect on patient adherence mediated by patient satisfaction.
H10: Shared Decision-Making has a positive effect on patient adherence mediated by patient satisfaction.

RESEARCH METHOD

This study aims to analyze the mediating role of patient satisfaction on the effect of Physician Competence Quality, Service Quality, and Shared Decision-Making on Patient Adherence at Eka Hospital Bekasi. The unit of analysis refers to anything that can be examined to obtain a summary of all observed elements, also known as the unit of observation, which may include individuals, objects, or events such as behaviors of persons or groups (Morissan, 2017). In this research, the unit of analysis is the individual, namely patients who receive outpatient (polyclinic) services at Eka Hospital Bekasi, have been provided with an explanation regarding their medical diagnosis, and have received surgical recommendations from the attending physician. Specific respondent criteria are established to ensure that the findings are accurate and relevant to the research objectives.

This research belongs to the survey design category with quantitative data analysis. Quantitative research is a method that employs numerical data and statistical analysis to test hypotheses or answer research questions objectively. It focuses on collecting measurable data, such as numerical values or frequencies, to identify patterns or relationships between variables (Sugiyono, 2015). According to Creswell (2014), quantitative research is structured to ensure that data is collected and analyzed systematically to provide results that can be generalized to a larger population. Moreover, this study emphasizes the validity and reliability of the collected data to ensure accurate findings that can be replicated in future research.

RESULTS AND DISCUSSION

Respondent Profile Analysis

The characteristics of respondents based on gender and age. In terms of gender, the majority of respondents are female, accounting for 51.2%, while male respondents represent 48.8%. Regarding age, the 31–50 year age group dominates with 50.4%, followed by respondents aged 18–30 years at 42.4%. Only a small proportion of respondents fall within the 51–65 year age group, which is 7.2%. These findings indicate that most respondents are in the productive age category (31–50 years), with only a slight gender distribution difference between males and females

Descriptive Analysis

Table 1.
Likert Scale

Score	Answer categories
1,00 – 1,80	Strongly disagree
1,81 – 2,60	Disagree
2,61 – 3,40	Neutral
3,41 – 4,20	Agree
4,20 – 5,00	Strongly agree

The survey findings are presented descriptively through the analysis of mean, standard deviation, and minimum-maximum values for latent variables, in accordance with the survey method (Bougie & Sekaran, 2020). The mean value illustrates the central tendency of respondents' answers, while the standard deviation represents data distribution around the mean and potential outliers. Minimum and maximum values help identify the range of respondents' assessments on the observed variables. The questionnaire in this study used a Likert scale ranging from 1 to 5, which is considered efficient and facilitates respondents in providing answers (Bougie & Sekaran, 2020). The scale is continuous, starting from 1 for "strongly disagree" to 5 for "strongly agree." For easier interpretation, the mean scores were grouped into categories based on predetermined interval calculations.

Descriptive Analysis of Doctor Competency Quality Variable

The results of the descriptive analysis for the Doctor Competency Quality variable indicate that the average patient responses to all 12 indicators fall within the "Agree" category, with mean values ranging from 3.704 to 4.072. The median score for all indicators is 4, confirming that most respondents gave positive assessments regarding doctor competency. The minimum and maximum scores for all indicators range from 1 to 5, while the standard deviation values vary between 0.921 and 1.037, suggesting that although there is variation among respondent perceptions, the variability remains within a reasonable range.

These findings highlight that patients at Eka Hospital Bekasi perceive doctors as competent, particularly in explaining diagnoses (KKD1, Mean = 3.968), explaining medical procedures (KKD3, Mean = 4.072), and demonstrating professionalism (KKD11, Mean = 3.92). This contributes significantly to strengthening patient trust in the quality of medical services provided by the hospital.

Descriptive Analysis of Service Quality Variable

All indicators of Service Quality show average scores categorized as "Agree," with the highest mean value recorded on indicator TA4 ("Doctors at Eka Hospital Bekasi have a neat appearance") at 4.36, and the lowest mean value on indicator TA1 ("The hospital building appears well-maintained") at 4.16. The median value for all indicators is 4. Respondent scores range from a minimum of 2 to a maximum of 5.

The highest standard deviation appears on TA4 (0.823), indicating more diverse responses compared with other indicators, whereas TA3 has the lowest standard deviation (0.641), reflecting more consistent perceptions among respondents. Overall, these results reveal positive patient evaluations toward the hospital's physical service attributes, including building condition, cleanliness of consultation rooms, modernity of medical equipment, and the professional appearance of doctors.

Descriptive Analysis of Shared Decision-Making Variable

The descriptive analysis of the Shared Decision-Making variable demonstrates that respondents' evaluations of all 12 indicators fall within the "Agree" category, with mean values ranging from 3.696 to 4.024. The median score for each indicator is 4, indicating predominantly positive perceptions regarding patient involvement in joint decision-making with doctors at Eka Hospital Bekasi. The minimum and maximum response values were 1 and 5, respectively, while standard deviation values ranged from 0.851 to 1.002, indicating moderate variability. The highest mean is recorded on indicator SDM2 (Mean = 4.024), suggesting that patients feel adequately involved in medical decision-making. Meanwhile,

indicator SDM10 (Mean = 3.888) shows that transparency in decision-making is also perceived positively. The lowest mean is observed on SDM3 (Mean = 3.696), indicating that although doctors explain treatment options, further improvement is needed in helping patients fully understand the benefits and risks of each option.

Descriptive Analysis of Patient Satisfaction Variable

Based on Table 4.10, the descriptive analysis of Patient Satisfaction shows that most respondents reported very high satisfaction with the services provided, reflected by mean scores ranging from 4.096 to 4.448 and median scores primarily at 4 or 5. Indicator PS11 (Mean = 4.448) received the highest rating, representing strong professionalism in hospital services, while satisfaction with medical staff (PS3, Mean = 4.096) had the lowest rating but remained categorized positively. These findings indicate strong patient trust and comfort supported by the hospital's clean facilities, efficient administrative processes, and transparent communication between doctors and patients.

Descriptive Analysis of Patient Compliance Variable

The descriptive analysis of the Patient Compliance variable reveals mean values ranging from 4.024 to 4.312, with most indicators falling under the "Strongly Agree" category and median scores equal to 4 across all indicators. The relatively small standard deviations (0.814–0.967) suggest high consistency in respondent responses. The highest mean score is found in KP1 (Mean = 4.312), which reflects patients' strong understanding of the reasons behind surgical recommendations. This is followed by KP8 (Mean = 4.24), showing patients' comfort with the planned medical procedures. Overall, the results demonstrate that patients generally trust, understand, and adhere to doctors' recommendations, including pre- and post-operative instructions that support their recovery.

Inferential Analysis

This study applied a multivariate data analysis approach due to the complexity of the research model involving several latent variables (Sekaran & Bougie, 2020; Hair et al., 2019). SmartPLS® 4.1.0.9 software was used for data processing and analysis. The dimensional two-stage approach was implemented, beginning with a first-stage disjoint evaluation to assess the outer model, followed by a second-stage evaluation using Latent Variable Scores (LV scores) to assess the inner model. The independent and mediating variables include both high-order and low-order constructs, with 5 dimensions (low-order constructs) and 4 high-order constructs analyzed to test the overall relationships affecting the dependent variable (Hair et al., 2019).

Outer Model

The outer model defines latent constructs by describing the relationship between indicators and the constructs they represent (Hair et al., 2019). Several tests were conducted to evaluate the validity and reliability of this model, including convergent validity, discriminant validity, and composite reliability. These tests ensure that the selected indicators accurately and consistently measure the intended constructs.

First Stage Indicator Evaluation

Based on Table 4.8, all indicators in the low-order constructs achieved validity and reliability requirements with outer loading values exceeding the minimum threshold of 0.7. The outer loading values range from 0.712 to 0.946, indicating strong relationships between

indicators and their respective constructs. The highest loading values are found in indicators EM1 (0.944) and EM2 (0.946) under the Empathy dimension, demonstrating excellent indicator performance. Meanwhile, TA4 (0.712) under the Tangibles dimension shows the lowest value but remains within an acceptable level. These findings confirm that the indicators sufficiently represent their constructs and are eligible for further analysis.

First Stage Construct Reliability

The analysis results indicate that all constructs in the study meet reliability standards, as demonstrated by Cronbach's Alpha and Composite Reliability (rho_A) values above the minimum threshold of 0.7. Within the Service Quality dimension, all five low-order constructs (Assurance, Empathy, Reliability, Responsiveness, and Tangibles) show consistent reliability, with Responsiveness obtaining the highest value (Cronbach's Alpha = 0.892). Doctor Competency Quality, Patient Satisfaction, and Shared Decision Making constructs also demonstrate strong internal consistency (Cronbach's Alpha ≥ 0.947). Overall, these results indicate that the measurement instruments used in this study possess sufficient reliability to support further analysis and hypothesis testing.

First Stage Construct Validity

In the Service Quality dimension, the Empathy construct has the highest AVE value (0.893), indicating that its indicators explain the construct variance very well, while Tangibles has the lowest AVE value (0.626), but it still falls within the valid category. Other constructs, including Doctor Competence Quality (AVE 0.654), Patient Satisfaction (AVE 0.701), and Shared Decision Making (AVE 0.634), also demonstrate adequate validity. These results indicate that the indicators used in this study effectively measure their respective constructs and are suitable for further analysis.

First Stage Discriminant Validity

Construct pairs such as AS–EM (1.027), RL–AS (1.04), and RS–EM (0.978) have HTMT values above the threshold, indicating a very close relationship between these constructs. However, these results are still acceptable based on theoretical justification that several dimensions, particularly within Service Quality, such as Assurance, Empathy, and Responsiveness—are conceptually interrelated, in line with the SERVQUAL framework. For other construct pairs, such as KP–KKD (0.595) and SDM–KP (0.641), the HTMT values fall within an acceptable range, demonstrating adequate discriminant validity. Furthermore, the high HTMT values in some construct pairs may be due to overlapping indicators that cannot be completely separated statistically but remain theoretically relevant.

Second Stage Indicator Reliability

The outer loading analysis results show that most indicators meet the criteria for convergent validity, with values above 0.7, indicating a strong relationship between the indicators and the latent constructs. Constructs such as Patient Compliance (KP), Doctor Competence Quality (KKD), and key Service Quality dimensions (Assurance, Empathy, Responsiveness) have consistently high values, for example, Assurance (0.938) and Empathy (0.934). Although the Tangibles (TA) indicator has a value of 0.679, which is below the ideal threshold, it is still acceptable in the context of exploratory research. Overall, these results support construct validity and confirm that the model is suitable for further analysis.

Second Stage Construct Reliability

The analysis results show that all high-order variables in this study have very high Cronbach's Alpha and Composite Reliability (rho_a) values, with all exceeding the 0.7

threshold, indicating excellent reliability. The Patient Compliance and Patient Satisfaction variables have the highest values (Cronbach's Alpha 0.961 and Composite Reliability 0.962), reflecting very strong internal consistency. The Doctor Competence Quality (Cronbach's Alpha 0.952) and Shared Decision Making (Cronbach's Alpha 0.947) variables also demonstrate sufficient reliability to support further analysis. These results confirm that all high-order constructs were measured using reliable instruments and can be utilized for structural model testing.

Second Stage Construct Validity

The analysis results indicate that all high-order variables in this study have Average Variance Extracted (AVE) values above the 0.5 threshold, indicating sufficient convergent validity. The Service Quality variable has the highest AVE value (0.785), reflecting that its indicators explain most of the construct variance effectively, while the Shared Decision Making variable has the lowest AVE value (0.634), but it still meets the validity criteria. Other variables, such as Patient Compliance (0.701) and Patient Satisfaction (0.700), show strong indicator contributions to their respective constructs. These findings support that the research instruments effectively measure the intended constructs and can be used for further analysis.

Second Stage Discriminant Validity

The discriminant validity analysis based on the correlation values among variables shows that all high-order variables in this study have relatively strong relationships yet remain conceptually distinct. The highest correlation is found between Patient Satisfaction and Patient Compliance (0.821), indicating a close but discriminant relationship. Conversely, the relationship between Shared Decision Making and Patient Compliance (0.505) shows a lower correlation but remains theoretically valid. All values fall within the acceptable range, supporting that each variable maintains a unique identity within the model. These results demonstrate that the research instruments can distinguish between constructs despite their conceptual interrelations.

R-Square

Table. 2
R -Square Result

R-Square	R-Square	R-Square
R-Square	R-Square	R-Square
R-Square	R-Square	R-Square

Based on Table 2, the relationships among constructs according to the R-square values show that Patient Compliance is explained by 68.3% of the variance from Doctor Competence Quality, Service Quality, Shared Decision Making, and Patient Satisfaction, while the remaining variance is influenced by other variables not included in this study. For Patient Satisfaction, the R-square value is 0.666, meaning that 66.6% of the variation in Patient Satisfaction is explained by Doctor Competence Quality, Service Quality, and Shared Decision Making, while the remaining portion is influenced by other factors outside the scope of this research.

F Square

Table 3
F Square Analysis Results

	Patient Satisfaction	Interpretation
Physician Competency Quality -> Patient Compliance	0.006	Kecil
Physician Competency Quality -> Patient Satisfaction	0.076	Kecil
Service Quality -> Patient Compliance	0.154	Sedang
Service Quality -> Patient Satisfaction	0.477	Kuat
Patient Satisfaction -> Patient Compliance	0.274	Sedang
Shared Decision Making -> Patient Compliance	0.001	Kecil
Shared Decision Making -> Patient Satisfaction	0.110	Kecil

Q Square

Table 4.
Q Square Analysis Results

	RMSE	MAE	Q^2*_predict*
Patient Compliance	0.716	0.400	0.532
Patient Satisfaction	0.654	0.447	0.614

Based on the table above, the Q^2 Predict analysis results show that the Patient Compliance construct has a Q^2 Predict value of 0.532, while Patient Satisfaction has a higher value of 0.614. Both values are above the threshold of 0, indicating that the model has good predictive capability for these constructs. These results suggest that the model is reliable in predicting the variables used, with stronger predictive ability for the Patient Satisfaction construct.

Direct Hypothesis Testing

Table 5
Hypothesis Testing Results

	Original Sample (O)	*Sample Mean* (M)	*Standard Deviation* (STDEV)	*T Statistics* (|O/STDEV|)	*P Values*
Physician Competency Quality -> Patient Compliance	0.062	0.066	0.066	0.941	0.347

Physician Competency Quality -> Patient Satisfaction	0.21	0.229	0.142	1.48	0.139
Service Quality -> Patient Compliance	0.343	0.365	0.146	2.348	0.019
Service Quality -> Patient Satisfaction	0.511	0.501	0.128	4.002	0
Patient Satisfaction -> Patient Compliance	0.51	0.489	0.149	3.431	0.001
Shared Decision Making -> Patient Compliance	-0.028	-0.035	0.048	0.572	0.567
Shared Decision Making -> Patient Satisfaction	0.238	0.214	0.113	2.106	0.035

Based on the results in Table 5, the relationships between constructs show varying levels of significance. First, the relationship between Doctor Competence Quality and Patient Compliance has a path coefficient of 0.062, T-statistics of 0.941, and a P-value of 0.347. Since the P-value > 0.05, this relationship is not significant, indicating that Doctor Competence Quality does not directly affect Patient Compliance. Similarly, the relationship between Doctor Competence Quality and Patient Satisfaction (path coefficient 0.21, T-statistics 1.48, and P-value 0.139) is also not significant.

In contrast, Service Quality has a significant effect on both Patient Compliance and Patient Satisfaction. The relationship between Service Quality and Patient Compliance (path coefficient 0.343, T-statistics 2.348, and P-value 0.019) and between Service Quality and Patient Satisfaction (path coefficient 0.511, T-statistics 4.002, and P-value 0.000) are both significant (P-value < 0.05). This indicates that Service Quality plays an important role in enhancing both patient satisfaction and compliance.

Furthermore, Patient Satisfaction has a positive and significant influence on Patient Compliance, with a path coefficient of 0.51, T-statistics 3.431, and P-value 0.001, reinforcing its role as a key factor affecting patients' adherence to medical recommendations. On the other hand, Shared Decision Making does not significantly influence Patient Compliance (path coefficient -0.028, T-statistics 0.572, and P-value 0.567), but it does have a significant positive effect on Patient Satisfaction (path coefficient 0.238, T-statistics 2.106, and P-value 0.035). These results emphasize the importance of Service Quality and Patient Satisfaction in influencing patient compliance, as well as the role of Shared Decision Making in improving patient satisfaction.

Indirect Hypothesis Testing (Mediation Test)

Table 6.
Indirect Hypothesis Testing Results

	Original Sample	*Sample Mean*	*Standard Deviation*	*T Statistics (|O/STDEV|)*	*P Values*

	(O)	*(M)*	*(STDEV)*		
Doctor Competency Quality -> Patient Satisfaction -> Patient Compliance	0.121	0.111	0.074	1.648	0.099
Service Quality -> Patient Satisfaction -> Patient Compliance	0.107	0.114	0.077	1.386	0.166
Shared Decision Making -> Patient Satisfaction -> Patient Compliance	0.26	0.24	0.084	3.091	0.002

Based on Table 6, the mediation analysis shows that the relationship **Doctor Competence Quality → Patient Satisfaction → Patient Compliance** has a path coefficient of 0.121, T-statistics 1.648, and P-value 0.099. Since the P-value > 0.05, there is no significant mediation effect, indicating that Patient Satisfaction does not mediate the relationship between Doctor Competence Quality and Patient Compliance.

Similarly, the relationship **Service Quality → Patient Satisfaction → Patient Compliance** (path coefficient 0.107, T-statistics 1.386, P-value 0.166) also shows no significant mediation effect.

Conversely, the relationship **Shared Decision Making → Patient Satisfaction → Patient Compliance** shows a path coefficient of 0.26, T-statistics 3.091, and P-value 0.002. Since P-value < 0.05, there is a significant mediation effect, indicating that Patient Satisfaction mediates the relationship between Shared Decision Making and Patient Compliance.

Importance–Performance Mapping Analysis (IPMA)

Table 7.
IPMA Construct Results

	Importance	*Performances*
Doctor Competency Quality	0.169	72.821
Service Quality	0.604	75.947
Patient Satisfaction	0.510	81.940
Shared Decision Making	0.094	70.550

Based on Table 7, the comparison between importance and performance for each construct reveals that Doctor Competence Quality has an importance value of 0.169 and performance of 72.821. Although important, the performance perceived by respondents regarding Doctor Competence Quality remains at a level that can still be improved. Service Quality shows a much higher importance value of 0.604, with a performance of 75.947, indicating that Service Quality is a highly significant aspect, with relatively strong performance compared to Doctor Competence Quality. Patient Satisfaction has an

importance value of 0.510 and the highest performance score of 81.940, showing that this construct is highly important and already performing well. In contrast, Shared Decision Making has the lowest importance value (0.094) and a performance score of 70.550, indicating room for improvement in collaborative decision-making between patients and physicians. Thus, the IPMA results provide insights for hospital management to prioritize improvements in constructs with high importance but lower performance—particularly Doctor Competence Quality—to enhance patient experience and overall service quality. At the indicator level, the IPMA results show that Patient Satisfaction (PS) has the highest importance and performance scores, especially the indicator *PS11* (importance 0.048; performance 86.2). Other indicators, such as *PS2* (importance 0.053; performance 83.6) and *PS9* (importance 0.055; performance 82.8), also exhibit high values, highlighting the crucial role of Patient Satisfaction in the model. Service Quality (KL) indicators show significant results, with *RS* having importance 0.134 and performance 73.9, while *TA* records the highest importance (0.15) with performance 75.807. On the other hand, Patient Compliance (KKD) displays greater variation in performance, with indicator *KKD5* showing the lowest performance at 67.6, indicating an area needing more attention. Shared Decision Making (SDM) demonstrates relatively low importance overall, with indicator *SDM9* having importance 0.008 and performance 67.6, reflecting substantial room for improvement. Overall, the analysis identifies improvement priorities in Shared Decision Making and several Patient Compliance indicators, while Patient Satisfaction demonstrates strong performance and remains a key aspect in supporting overall service quality.

The findings of this study reveal several key relationships among the examined variables.

No Significant Effect of Doctor Competence Quality on Patient Satisfaction Doctor Competence Quality was found to have no significant effect on patient satisfaction. Although doctors' technical expertise and communication skills are essential, patients' satisfaction may be influenced more strongly by external factors such as hospital service quality, waiting time, and facility comfort. This aligns with Zolnierek and DiMatteo (2009), who noted that interpersonal factors often outweigh technical competence in shaping patient satisfaction.

Positive Effect of Service Quality on Patient Satisfaction

Service Quality positively and significantly affects patient satisfaction. Responsive, accurate, and professional care makes patients feel valued and secure, leading to higher satisfaction levels. Consistent with Alfred (2024), responsiveness and effective communication were found to be key predictors of satisfaction. High service quality also enhances the hospital's reputation and patient loyalty.

Positive Effect of Shared Decision Making (SDM) on Patient Satisfaction

Shared decision-making significantly influences patient satisfaction by involving patients in medical decisions. When patients participate in transparent discussions about their treatment options, they feel respected and more confident in their choices. Prior studies (Drevs, 2013; de Groot et al., 2012; Ekaterina et al., 2017) confirm that such involvement strengthens trust and satisfaction toward healthcare providers.

Positive Effect of Patient Satisfaction on Patient Compliance

Patient Satisfaction has a significant positive effect on Patient Compliance. Satisfied patients are more likely to follow medical recommendations and proceed with treatments,

including surgery. Previous research (Tevis et al., 2015; Bleustein et al., 2014; Zakaria et al., 2024) also supports that satisfaction increases patients' trust and motivation to adhere to medical advice.

No Significant Effect of Doctor Competence Quality on Patient Compliance

Doctor Competence Quality does not directly affect Patient Compliance. While medical expertise is important, effective communication and empathy are stronger determinants of compliance (SS Kim, 2004; Osterberg, 2009; Stewart, 1984). This suggests that interpersonal aspects are more influential than technical skills in shaping patient adherence.

Positive Effect of Service Quality on Patient Compliance

Service Quality significantly affects Patient Compliance. When patients perceive that healthcare services are reliable, responsive, and supportive, they are more likely to comply with medical instructions. This finding aligns with Parasuraman et al. (1988) and Zeithaml et al. (1996), who emphasized that service dimensions such as tangibles, assurance, and responsiveness foster loyalty and adherence.

No Significant Effect of Shared Decision Making on Patient Compliance

SDM does not significantly affect Patient Compliance. Although SDM enhances understanding and satisfaction, it does not always translate into higher adherence. Factors such as trust, previous experiences, anxiety, and emotional state may play a stronger role in determining compliance (Zakaria et al., 2024; Bleustein et al., 2014).

No Mediation Effect of Patient Satisfaction between Doctor Competence Quality and Patient Compliance

Patient Satisfaction does not mediate the relationship between Doctor Competence Quality and Patient Compliance. Although competence can improve satisfaction, it is insufficient to ensure compliance, which is more strongly influenced by psychological and personal factors (SS Kim et al., 2004; Horne et al., 2013).

No Mediation Effect of Patient Satisfaction between Service Quality and Patient Compliance

Similarly, Patient Satisfaction does not mediate the effect of Service Quality on Patient Compliance. While good service increases satisfaction, compliance depends more on intrinsic factors such as motivation, understanding of treatment benefits, and personal beliefs (Manzoor et al., 2019; Edi S., 2015).

Significant Mediation Effect of Patient Satisfaction between Shared Decision Making and Patient Compliance

Patient Satisfaction significantly mediates the relationship between Shared Decision Making and Patient Compliance. Involving patients in medical decision-making enhances satisfaction, which in turn motivates adherence. Studies by Elwyn et al. (2012), Joosten et al. (2008), and Hibbard et al. (2004) confirm that patients who feel heard and respected develop higher levels of trust and are more willing to follow medical recommendations.

CONCLUSION

Based on the results of hypothesis testing using the SEM method and data analysis with SmartPLS, the following findings can be concluded:

1. Doctor Competence Quality does not have a significant effect on Patient Satisfaction. This suggests that factors beyond the doctor's professional competence, such as emotional aspects, communication quality, or service facilities, play a more dominant role in influencing patient satisfaction.
2. Service Quality has a significant and positive effect on Patient Satisfaction, meaning that the higher the perceived service quality, the more satisfied patients are with their healthcare experience.
3. Shared Decision Making (SDM) significantly influences Patient Satisfaction. The process of involving patients in medical decision-making enhances their satisfaction because they feel respected and included in their treatment journey.
4. Patient Satisfaction has a significant positive effect on Patient Compliance. Satisfied patients are more motivated to follow the medical advice provided by healthcare professionals.
5. Doctor Competence Quality does not significantly influence Patient Compliance, indicating that medical expertise alone does not determine compliance, as patient-specific factors play a greater role.
6. Service Quality significantly affects Patient Compliance, showing that patients who perceive good service quality are more likely to adhere to medical recommendations.
7. Shared Decision Making does not have a significant direct effect on Patient Compliance, suggesting that patient involvement in decision-making alone does not guarantee better adherence to medical advice.
8. Doctor Competence Quality does not significantly affect Patient Compliance through the mediation of Patient Satisfaction, implying that even though competent doctors may increase satisfaction, compliance is still largely determined by individual patient factors.
9. Service Quality does not significantly affect Patient Compliance through Patient Satisfaction. Although better service increases satisfaction, this satisfaction does not necessarily translate into improved adherence to treatment.
10. Shared Decision Making has a significant effect on Patient Compliance through the mediation of Patient Satisfaction, indicating that involving patients in decision-making enhances satisfaction, which subsequently improves their adherence to medical recommendations.

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