



The Impact of Service Quality on Loyalty through Satisfaction as a Mediating Variable

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ABSTRACT

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This study aims to analyze the influence of service quality and waiting time on patient loyalty at the Emergency Department (ED), with patient satisfaction as a mediating variable. A quantitative method was employed using a survey approach with questionnaires distributed to 100 patients who had visited the ED more than twice. Data were analyzed using Structural Equation Modeling (SEM) with a Partial Least Squares (PLS) approach via SmartPLS 4.0. The results show that service quality has a significant positive effect on patient satisfaction and loyalty, while waiting time has a significant negative effect. Additionally, patient satisfaction is proven to be a mediating variable between service quality and waiting time on patient loyalty. These findings suggest that improving service quality and reducing delays can enhance student satisfaction and loyalty in educational settings. Educational leaders can apply these insights to streamline administrative processes, prioritize student needs, and foster a supportive learning environment, ultimately improving student retention and academic outcomes.

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INTRODUCTION

Healthcare services are fundamental to ensuring the well-being of society, particularly in critical care settings such as Emergency Departments (ED) (Shaw et al., 2024; Ahmed et al., 2024). Emergency services act as a vital component of healthcare systems, offering immediate assistance to patients facing life-threatening conditions (Burke et al., 2023; Pavedahl et al., 2024). These services directly impact patient outcomes and are critical in shaping the reputation and financial stability of hospitals. In the context of education and management, understanding the factors influencing service quality is crucial for improving both operational efficiency and patient satisfaction. The challenges faced by hospitals in maintaining optimal service quality, particularly in high-pressure environments such as the ED, are often compounded by long waiting times,

understaffing, and resource constraints. This makes it essential to assess and enhance the service delivery process to meet patients' needs effectively. Therefore, this research holds significant relevance for both healthcare management and educational sectors, as it explores how service quality and waiting times affect patient satisfaction and loyalty—key indicators of hospital performance.

A significant problem in healthcare, especially in emergency departments, is the growing gap between increasing patient numbers and the ability to provide timely, high-quality care. Hospitals are experiencing difficulties in managing patient flow, which directly influences patient experiences and satisfaction. The urgency of emergency cases, compounded by long waiting times, results in high levels of patient dissatisfaction. This dissatisfaction, in turn, affects patient loyalty, as individuals are less likely to return to healthcare providers where they experienced delays or subpar service. Managing these issues efficiently requires a deep understanding of the factors affecting service delivery and patient experiences. In educational management, it is also crucial to understand how these challenges in healthcare can be mitigated, as similar issues such as time management, resource allocation, and service quality also exist in educational settings. This research aims to address these gaps by examining the impact of service quality and waiting time on patient loyalty, which is an essential factor for healthcare providers to retain and attract patients.

In many healthcare institutions, particularly in emergency departments, long waiting times have become a recurring issue that impacts both patient satisfaction and loyalty. Patient dissatisfaction due to extended waiting periods is a well-documented phenomenon. Studies have shown that excessive wait times in the ED lead to heightened frustration among patients, which ultimately results in lower levels of satisfaction and reduced likelihood of repeat visits. Additionally, patients who feel their concerns are not addressed in a timely manner may develop negative perceptions of the hospital's service quality. In the educational sector, similar phenomena occur when students face delays in receiving feedback or experiencing slow responses to their academic needs. As hospitals are increasingly under pressure to improve efficiency, understanding how waiting times interact with other elements like service quality and satisfaction is vital. This research focuses on exploring these dynamics to provide actionable insights into improving both patient experience and hospital operations.

Previous research has highlighted the importance of service quality in healthcare settings. Studies by Kotler (in Haliza et al., 2021) and Anggraeni &

Prihatin (2022) emphasize that service quality, encompassing dimensions like reliability, responsiveness, assurance, empathy, and physical evidence, plays a critical role in shaping patient satisfaction and loyalty. When service quality meets or exceeds patient expectations, the likelihood of patient retention increases. Moreover, the relationship between waiting times and patient satisfaction has been widely discussed in the literature. According to Nugroho & Hidayat (2022), long waiting times have a significant negative impact on patient satisfaction and, consequently, their loyalty to healthcare providers. Despite these insights, there remains a gap in understanding how patient satisfaction mediates the relationship between service quality and waiting times in the context of patient loyalty. Addressing this gap is crucial for developing effective strategies to improve patient retention in emergency departments.

Research on patient satisfaction and loyalty often focuses on individual elements, such as service quality or waiting times, but few studies have comprehensively examined how these factors interact to influence overall patient loyalty in emergency settings. Some studies have explored the mediating role of patient satisfaction in the relationship between service quality and patient loyalty (Yuliana & Pratama, 2021; Setiawan & Puspita, 2024). However, there is limited research on the combined effects of both service quality and waiting time, especially in the context of emergency services. This research fills this gap by not only analyzing the direct effects of service quality and waiting time on patient loyalty but also by examining how patient satisfaction acts as a mediator in this relationship. The findings will provide valuable insights for healthcare managers to optimize service delivery in emergency departments and improve patient retention.

This study offers a novel approach by examining the interplay between service quality, waiting time, and patient satisfaction as a mediator in the context of emergency services. While previous studies have focused on individual variables, this research provides a comprehensive analysis of how these factors work together to influence patient loyalty. By analyzing patient satisfaction as a mediating variable, this study offers new perspectives on improving emergency department operations and patient care. The importance of resolving this issue cannot be overstated, as hospitals that can effectively manage patient expectations, minimize waiting times, and provide high-quality care are more likely to retain patients, enhance their reputation, and improve financial stability. Moreover, the insights gained can be applied to other service-oriented industries, including education, where time management, service quality, and customer satisfaction are equally important.

The central research question guiding this study is: How do service quality and waiting times impact patient loyalty, with patient satisfaction acting as a mediating variable? By addressing this question, the study seeks to provide evidence that supports the role of service quality and efficient time management in enhancing patient loyalty. The study's main argument is that improving service quality and reducing waiting times will not only increase patient satisfaction but also enhance patient loyalty in emergency departments. Furthermore, patient satisfaction, as a mediating factor, plays a crucial role in determining the strength of this relationship. This research contributes to the field by providing empirical evidence on the interrelationships between these variables and offering actionable recommendations for improving healthcare services.

This research makes a significant contribution by exploring the complex relationships between service quality, waiting times, and patient loyalty, with a focus on the mediating role of patient satisfaction. It offers both theoretical insights and practical solutions for enhancing service delivery in emergency departments. By addressing gaps in existing literature, the study provides healthcare managers with tools to optimize patient experiences, thereby improving retention rates and operational efficiency. Additionally, the findings of this study have broad implications for healthcare education and management, highlighting the importance of integrating service quality principles into educational curricula to prepare future healthcare leaders to manage such challenges effectively. This research underscores the critical need for healthcare systems to prioritize both service quality and time efficiency to meet the needs of their patients.

RESEARCH METHOD

This study uses a quantitative design with a Partial Least Squares (PLS) based Structural Equation Modeling (SEM) approach to examine the influence of service quality and waiting time on patient loyalty in the Emergency Department of RSUD Soedarso Pontianak, with patient satisfaction as a mediating variable. The research subjects are patients who have received services in the Emergency Department of RSUD Soedarso Pontianak in the last three months, with inclusion criteria including patients who visited more than twice, received medical services, and were willing to fill out a questionnaire, as well as exclusion criteria such as patients with mental disorders or those who only had brief consultations. The research population includes all emergency department patients who meet these criteria, with a sample size of 100 respondents, determined based on the Hair et al. (2022) rule for multivariate analysis (5-10 times the number of

indicators, which is 14 indicators). Primary data were collected through a Google Form-based questionnaire with a five-point Likert scale, distributed to patients in the emergency department of RSUD Soedarso Pontianak, while secondary data were obtained from literature and scientific journals. The operational definitions of the variables include: (1) Service quality, measured by indicators of physical evidence, reliability, responsiveness, assurance, and empathy (Ayu Lestari, 2021); (2) Waiting time, measured by the waiting time for triage, examination, and treatment (Williams & Wright, 2020); (3) Patient satisfaction, measured by satisfaction with service quality, waiting time, and treatment outcomes (Lee & Choi, 2019); and (4) Patient loyalty, measured by intention to return, recommendation, and willingness to use the service again (Gao & Luo, 2020), all with an ordinal measurement scale. Data analysis techniques use SMARTPLS 4.0 software to test the measurement model (convergent validity with loading factor >0.50 and AVE >0.50 ; reliability with composite reliability and Cronbach Alpha >0.70) and the structural model (path coefficients, R^2 , Q^2 , and hypothesis testing through bootstrapping with t-statistic >1.96 at 0.05 significance). This analysis ensures the validity, reliability, and predictive capability of the model to test the relationships between variables. The conceptual framework in this study is as follows:

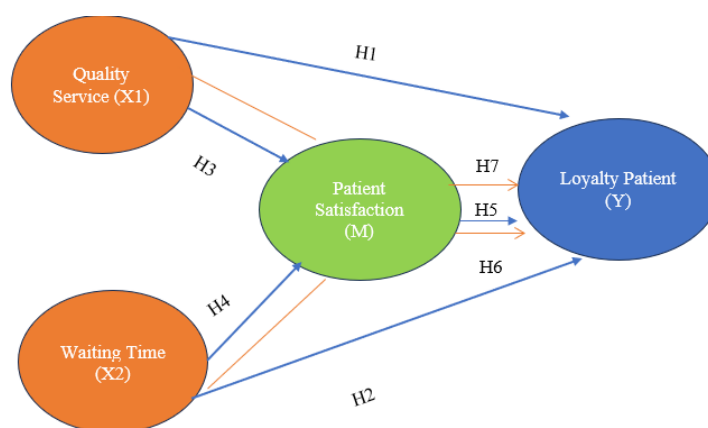


Figure 1. Conceptual Framework

Hypothesis

The Relationship Between Service Quality and Patient Loyalty

Based on research conducted by Anggraeni & Prihatin (2022), service quality in hospitals contributes positively to the increase in patient loyalty. They found that high-quality service, in terms of speed, professionalism of medical staff, and comfort of facilities, directly affects patient satisfaction levels, which in turn increases their loyalty to the hospital. Similar findings were also revealed by

Pratama & Dewi (2022), who stated that optimal service quality has been proven to have a significant positive impact on patient loyalty at hospitals. This study underscores the importance of service quality in creating positive experiences that encourage patients to continue using the same hospital services. Based on these findings, the following hypothesis is formulated:

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

The Relationship Between Waiting Time and Patient Loyalty

Based on research conducted by Nugroho & Hidayat (2022), long waiting times have been proven to negatively affect patient loyalty. They found that the longer the waiting time that patients have to endure in the Emergency Department (ED), the lower the level of patient satisfaction and loyalty towards the hospital. This study shows that excessively long waiting times can reduce the quality of the patient experience, which in turn impacts the patients' intention to return to the same hospital for services. Based on these findings, the following hypothesis is formulated:

H2: Waiting time significantly affects patient loyalty.

The Relationship Between Service Quality and Patient Satisfaction

Based on the research conducted by Sari & Widiyanto (2023), service quality positively contributes to the level of patient satisfaction. They found that high-quality service, such as the skills of medical staff, service speed, and the comfort of facilities, plays a significant role in increasing patient satisfaction. This study shows that the better the quality of service provided by the hospital, the greater the likelihood that patients will be satisfied with the experience they receive. Furthermore, research by Rahman & Wijaya (2022) reinforces these findings by discovering that the quality of hospital services is closely related to patient satisfaction, particularly in terms of time efficiency, diagnostic accuracy, and adequate management of medical facilities. The results of this study further clarify that the quality of service is one of the main factors influencing patient satisfaction levels in hospitals. Based on these findings, the following hypothesis is formulated:

H3: The quality of service has a significant impact on patient satisfaction.

The Relationship Between Waiting Time and Patient Satisfaction

Based on the research conducted by Herman & Dewi (2021), long waiting times have been proven to have a negative impact on patient satisfaction. They found that the longer the waiting time experienced by patients in the Emergency Department (ED), the lower the level of patient satisfaction with the hospital services. The discomfort caused by long waiting times is related to a poor

perception of service quality. Additionally, Fitriana & Asmara (2021) revealed that long waiting times significantly affect the decrease in patient satisfaction. They highlight the importance of efficient wait time management, as shorter wait times will reduce stress and enhance the positive experience of patients during their stay in the hospital. Based on these findings, the following hypothesis is formulated:

H4: Waiting time has a significant effect on patient satisfaction.

Patient Satisfaction acts as a Mediating Variable in the relationship between Service Quality and Patient Loyalty

Based on the research conducted by Yuliana & Pratama (2021), it shows that patient satisfaction functions as a mediating variable that influences the relationship between service quality and patient loyalty. This study found that patients who are satisfied with the quality of service are more likely to show loyalty, both in the form of repeat visits and recommendations to others. Based on these findings, the following hypothesis is formulated:

H5: Patient satisfaction acts as a mediating variable in the relationship between service quality and patient loyalty.

Patient Satisfaction acts as a Mediating Variable in the relationship between Waiting Time and Patient Loyalty

Based on the research conducted by Suryani & Purnama (2021), their study revealed that patient satisfaction can mediate the relationship between waiting time and patient loyalty. They found that long waiting times caused dissatisfaction, which reduced the likelihood of patients returning or recommending the hospital to others. Conversely, shorter waiting times increased satisfaction, which facilitated an increase in patient loyalty to the hospital's services. Based on these findings, the following hypothesis was formulated:

H6: Patient satisfaction acts as a mediating variable in the relationship between waiting time and patient loyalty.

Patient Satisfaction acts as a Mediating Variable in the relationship between Service Quality, Waiting Time, and Patient Loyalty

Based on research by Setiawan & Puspita (2024), patient satisfaction has been proven to act as a mediating variable in the relationship between service quality and patient loyalty. They found that the quality of service provided by the hospital positively affects patient satisfaction, which in turn contributes to patient loyalty. In this study, waiting time was also found to have a negative impact on patient satisfaction, which can ultimately reduce patient loyalty.

Research by Pratiwi & Nugroho (2024) also confirmed the role of patient satisfaction as a mediator. They found that longer wait times can decrease patient satisfaction, which in turn affects patients' decisions to remain loyal to the hospital. On the other hand, high-quality service can increase patient satisfaction, which leads to increased loyalty. In this study, patient satisfaction serves as a link that strengthens the relationship between service quality and patient loyalty. Another study conducted by Yuliana & Amalia (2024) also showed similar results, emphasizing the importance of the role of patient satisfaction as a mediating variable. They found that patient satisfaction is not only influenced by the quality of service and waiting time, but also serves as a bridge connecting both to patient loyalty. This research provides strong evidence that hospitals need to focus on improving service quality and managing waiting times efficiently to enhance patient loyalty through increased satisfaction. Based on these findings, the following hypothesis is formulated:

H7: Patient satisfaction acts as a mediating variable in the relationship between service quality, waiting time, and patient loyalty.

RESULT AND DISCUSSION

Result

Based on the data processing results in Table 1, it is known that all the indicators used to measure the latent variable have met the criteria for convergent validity. Each indicator has an outer loading value above 0.50 and an Average Variance Extracted (AVE) value above 0.50. This indicates that the constructs in the model used have adequate convergent validity. The outer loading values range from 0.513 to 0.884, and the AVE values for each variable are also above the threshold of 0.50. Specifically, for the Work Environment, the AVE value is below 0.50 but is still acceptable because the Cronbach Alpha value is above 0.50, and therefore it is still considered valid. From the results above, it can be concluded that this research model has good convergent validity.

Table 1. Results of Convergent Validity Testing

Variable	Indicator	Loading factor	Cut off value	Ave	Cut off value	Decision
Quality Service (X1)	P01	0.577	0.5	0.52	0.5	VALID
	P02	0.787	0.5			VALID
	P03	0.772	0.5			VALID
	P04	0.744	0.5			VALID
	P05	0.758	0.5			VALID
	P06	0.703	0.5			VALID
	P07	0.713	0.5			VALID

	P08	0.696	0.5			VALID
	P09	0.649	0.5			VALID
	P10	0.764	0.5			VALID
Waiting Time (X2)	P11	0.578	0.5	0.514	0.5	VALID
	P12	0.645	0.5			VALID
	P13	0.838	0.5			VALID
	P14	0.791	0.5			VALID
	P15	0.695	0.5			VALID
	P16	0.721	0.5			VALID
Patient Satisfaction (Z)	P17	0.846	0.5	0.536	0.5	VALID
	P18	0.851	0.5			VALID
	P19	0.807	0.5			VALID
	P20	0.745	0.5			VALID
	P21	0.608	0.5			VALID
	P22	0.522	0.5			VALID
	P23	0.853	0.5			VALID
	P24	0.835	0.5			VALID
	P25	0.776	0.5			VALID
Loyalty Patient (Y)	P26	0.774	0.5	0.566	0.5	VALID
	P27	0.878	0.5			VALID
	P28	0.567	0.5			VALID
	P29	0.557	0.5			VALID
	P30	0.705	0.5			VALID

Source: research data

Based on the data processing results in Tables 2 and 3, all variables in this study can be declared reliable. This is indicated by the Cronbach's alpha and Composite Reliability values for each variable exceeding the threshold of 0.60. These findings indicate that all constructs in the research model meet the required reliability criteria, have a very good level of internal consistency, and can be used for further analysis.

Table 2. Cronbach Alpha

	Cronbach's alpha	Standard	Valid / Invalid
Quality Service (X1)	0.873	0.6	VALID
Waiting Time (X2)	0.867	0.6	VALID
Patient Satisfaction (Z)	0.888	0.6	VALID
Loyalty Patient (Y)	0.809	0.6	VALID

Source: research data

Table 3. Cronbach Alpha

	Composite Reliability	Standard	Valid / Invalid
Quality Service (X1)	0.887	0.6	VALID
Waiting Time (X2)	0.875	0.6	VALID
Patient Satisfaction (Z)	0.917	0.6	VALID
Loyalty Patient (Y)	0.817	0.6	VALID

Source: research data

Based on the data processing results in Table 4, the R-Square value is 0.749, which means the independent variables (Service Quality, Waiting Time, and Patient Satisfaction) explain the Patient Loyalty variable by 74.9%, while the remaining 25.1% is explained by other variables outside this study. Next, the Q-Square values are 0.397 each. This value indicates that the model has good predictive relevance, as the Q-Square value is above the minimum threshold of 0. This indicates that the model is capable of adequately predicting the endogenous construct.

Table 4. Inner Model Measurement Results

	Value
R-Square	0,749
Q-Square	0,397

Source: research data

Based on the data processing results in Table 5, the analysis shows that Service Quality significantly affects Patient Loyalty with a p-value of 0.013 (< 0.05). Thus, Service Quality determines Patient Loyalty. Based on the above test results, it can be stated that hypothesis H1, which posits that Service Quality significantly affects Patient Loyalty, is accepted. Waiting Time is not significant to Patient Loyalty with a p-value of 0.36 (> 0.05). Thus, Waiting Time does not determine Patient Loyalty. Based on the above test results, it can be stated that hypothesis H2, which posits that Waiting Time significantly affects Patient Loyalty, is rejected. Service Quality significantly affects Patient Satisfaction with a p-value of 0.000 (< 0.05). Thus, Service Quality determines Patient Satisfaction. Based on the above test results, it can be stated that hypothesis H3, which posits that Service Quality significantly affects Patient Satisfaction, is accepted. Waiting Time significantly affects Patient Satisfaction with a p-value of 0.004 (< 0.05). Thus, Waiting Time determines Patient Satisfaction. Based on the above test results, it can be stated that hypothesis H4, which posits that Waiting Time significantly affects Patient Satisfaction, is accepted. Service Quality significantly affects Patient Satisfaction. This can be seen from the t-test P-Value (0.000) being smaller than Alpha 5% (0.05). Patient Satisfaction significantly affects Patient

Loyalty. This can be seen from the t-test P-Value (0.013) being smaller than Alpha 5% (0.05). From these results, it can be stated that Patient Satisfaction mediates the effect of Patient Satisfaction on Patient Loyalty.

Based on the above test results, it can be stated that hypothesis H5, which posits that Patient Satisfaction acts as a mediating variable in the relationship between service quality and patient loyalty, is accepted. Waiting Time significantly affects Patient Satisfaction. This can be seen from the t-test P-Value (0.004) being smaller than the 5% Alpha (0.05). Patient Satisfaction significantly affects Patient Loyalty. This can be seen from the t-test P-Value (0.013) being smaller than the 5% Alpha (0.05). From these results, it can be stated that Patient Satisfaction mediates the effect of Waiting Time on Patient Loyalty. Based on the above test results, it can be stated that hypothesis H6, which posits that Patient Satisfaction acts as a mediating variable in the relationship between Waiting Time and Patient Loyalty, is accepted. Patient Satisfaction significantly affects Patient Loyalty with a p-value of 0.013 (< 0.05). Thus, Patient Satisfaction determines Patient Loyalty. Based on the above test results, it can be stated that hypothesis H7, which posits that Patient Satisfaction acts as a mediating variable in the relationship between service quality, waiting time, and patient loyalty, is accepted.

Table 5. Hypothesis Test

	Original sample (O)	P values
Patient Satisfaction -> Patient Loyalty	0.257	0.013
Service Quality -> Patient Satisfaction	0.746	0.000
Service Quality -> Patient Loyalty	0.667	0.000
Waiting Time -> Patient Satisfaction	0.184	0.004
Waiting Time -> Patient Loyalty	-0.058	0.36

Source: research data

Discussion

The findings of this research indicate that service quality significantly influences patient loyalty, while waiting time does not. This conclusion aligns with the work of Kotler (in Amerta, et al., 2023) and Singh et al. (2023), who emphasized that service quality, including reliability, responsiveness, and empathy, plays a crucial role in shaping customer satisfaction and loyalty. However, contrary to some studies, this research found that waiting time does not have a significant direct effect on patient loyalty, which challenges the conclusions of Santos-Jaén et al. (2022) and Ayodeji et al. (2023), who argued that long waiting times negatively impact patient satisfaction and loyalty. This difference could be attributed to the role of other intervening variables, such as

patient satisfaction, which might have moderated the relationship between waiting time and loyalty, as supported by previous. This study underscores the importance of considering mediating factors like patient satisfaction, which appears to play a significant role in the relationship between service quality, waiting time, and loyalty. These insights are also valuable in the context of educational management, where student satisfaction and loyalty are similarly influenced by the quality of educational services and the time spent in administrative processes or waiting for academic results.

In addition, the findings confirm that service quality has a significant positive impact on patient satisfaction, which, in turn, affects patient loyalty. This is consistent with earlier studies by Novitasari (2022) and Venkatakrishnan et al. (2023), who found that service quality directly enhances patient satisfaction. This study further strengthens these claims by identifying patient satisfaction as a mediator in the relationship between service quality and patient loyalty. As patient satisfaction mediates the effects of both service quality and waiting time, the results suggest that improving service quality is more critical than reducing waiting time in fostering loyalty. This finding has significant implications for healthcare management, indicating that hospitals should prioritize improving service delivery to increase patient satisfaction and loyalty, rather than solely focusing on reducing waiting times. Similarly, in educational management, improving the quality of teaching, resources, and student support services can significantly enhance student satisfaction, which will likely foster greater student retention and loyalty to the institution.

The implications for theory are significant, as the study provides empirical support for the mediating role of patient satisfaction in the relationship between service quality, waiting time, and patient loyalty. This research contributes to the literature by integrating these three constructs into a comprehensive model, highlighting the importance of considering multiple factors that influence patient loyalty. It also extends previous research by emphasizing that waiting time alone is not enough to explain patient loyalty in emergency services. Theoretically, this research suggests that future studies should explore additional mediating variables that might influence the relationships between service quality, waiting time, and patient loyalty in various healthcare contexts. From an educational management perspective, this highlights the need to explore how service quality within educational settings—such as timely feedback, student support, and teaching quality—can influence student loyalty and overall satisfaction.

From a practical standpoint, the findings suggest that healthcare institutions, especially those with busy emergency departments, should focus on improving the overall service quality rather than just reducing waiting times. While shorter waiting times may improve patient satisfaction to some extent, the

quality of care provided in the emergency department—ranging from staff responsiveness to empathy—has a more profound impact on both patient satisfaction and loyalty. Hospital administrators should invest in training staff, improving facilities, and enhancing communication to create an environment that fosters trust and satisfaction. Similarly, in educational institutions, focusing on improving the quality of the learning environment, timely academic feedback, and responsive teaching staff can significantly enhance student satisfaction, which, in turn, increases student retention and loyalty. This suggests that educational managers should apply similar strategies as healthcare managers—focusing on quality and engagement, rather than just efficiency or time reduction.

This study highlights the critical role of service quality and patient satisfaction in shaping patient loyalty, while also challenging the assumption that waiting time is a major determinant of loyalty. The findings suggest that focusing on improving service quality—through training, better facilities, and more efficient processes—can have a more significant and lasting impact on patient loyalty than merely addressing waiting times. This research provides valuable insights for both healthcare practitioners and policymakers, offering evidence that improving patient satisfaction through enhanced service quality should be a central focus for hospitals seeking to build stronger patient relationships and improve long-term loyalty. Similarly, these insights can be applied to educational management, where focusing on the quality of education, timely feedback, and supportive academic services is key to improving student loyalty, retention, and overall institutional success.

CONCLUSION

Service Quality significantly affects Patient Loyalty, meaning that Service Quality is a variable that determines the Loyalty of Emergency Department Patients. Waiting Time does not significantly affect Patient Loyalty, meaning that Waiting Time does not determine the Loyalty of Emergency Department Patients. Service Quality significantly affects Patient Satisfaction, meaning that Service Quality is a variable that determines the Satisfaction of Emergency Department Patients. Waiting Time significantly affects Patient Satisfaction, meaning that Waiting Time is a variable that determines the Satisfaction of Emergency Department Patients. Patient Satisfaction mediates the effect of Service Quality on Patient Loyalty, and Patient Satisfaction mediates the effect of Waiting Time on Patient Loyalty. Patient Satisfaction significantly affects Patient Loyalty, meaning that Patient Satisfaction is a variable that mediates the effect of Service Quality and Waiting Time on Patient Loyalty.

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