

The Positive Effect of Service Quality on Patient Satisfaction is Strengthened by the Implementation of Electronic Medical Records

Lisdiawati¹, Rajindra¹, Abdul Kadri¹

¹Master's Program of Public Health, Universitas Muhammadiyah Palu, Palu, Indonesia

Correspondence: **Abdul Kadri**: Kampus Universitas Muhammadiyah Palu, Palu, Sulteng, Indonesia; kadri782ao@gmail.com

ABSTRACT

The implementation of Electronic Medical Records (EMR) in hospitals continues to face multiple challenges, including technical limitations, human resource readiness, and socio-cultural factors that influence technology adoption. This study aims to analyze the direct effect of service quality on patient satisfaction and the moderating effect of EMR implementation in strengthening this relationship. A cross-sectional design was applied with a total of 95 respondents. Data were collected using a structured questionnaire, and hypothesis testing was conducted using Structural Equation Modeling (SEM). The first-stage analysis (direct effect model) showed an R-square value of 0.55 and a path coefficient (β) of 0.740 with $p (<0.001) \leq 0.05$, indicating a positive and significant effect of service quality on patient satisfaction. The second-stage analysis (moderating effect model) produced an R-square value of 0.47 and a path coefficient (β) of 0.271 with $p (<0.003) \leq 0.05$, demonstrating that EMR implementation strengthens the influence of service quality on patient satisfaction. These findings highlight the strategic role of EMR in enhancing service effectiveness and improving patient satisfaction in hospital settings.

Keywords: moderating effect; electronic medical records; service quality; patient satisfaction; hospital

INTRODUCTION

The quality of healthcare services in hospitals continues to be a major concern among the public. Several studies conducted in Central Sulawesi have reported persistent problems contributing to low levels of patient satisfaction, many of which stem from inadequate service quality. One of the most frequently cited issues is prolonged service waiting time. Patients no longer evaluate service quality solely based on clinical recovery; rather, they increasingly consider non-clinical dimensions such as service speed, accuracy of medical procedures, and the interpersonal skills and courtesy of healthcare workers. In response to these challenges, the government issued the *Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 on Medical Records*, which mandates the implementation of Electronic Medical Records (EMR) in all hospitals across Indonesia [1].

Electronic Medical Records (EMR) represent a major innovation in hospital information management systems, designed to accelerate the flow of clinical information, enhance resource efficiency, and integrate various healthcare service activities. In many high-income countries, EMR implementation has been shown to significantly improve the effectiveness and efficiency of healthcare delivery. However, in Indonesia, the adoption of EMR remains uneven and faces substantial obstacles. Data from the Indonesian Hospital Association (PERSI) as of March 2022 indicate that out of approximately 3,000 hospitals nationwide, only 50% have implemented EMR systems, and merely 16% have achieved effective and optimal utilization [2].

RSUD Madani, a type-C hospital in Central Sulawesi Province, began its phased EMR implementation in 2023. Prior to this transition, the hospital frequently encountered delays in the delivery of paper-based medical records to outpatient clinics, contributing to prolonged patient waiting times. With the introduction of EMR, the hospital aims to improve service efficiency, particularly by reducing waiting time. Previous studies have demonstrated that EMR implementation can significantly reduce outpatient waiting times [3], decrease the number of patient complaints [4], and improve overall patient satisfaction [5].

Despite these potential benefits, the implementation of EMR at RSUD Madani continues to face multiple challenges, including technical limitations, human resource constraints, and socio-cultural barriers. Preliminary observations conducted by the researchers revealed that EMR utilization in the outpatient department still encounters several issues that may contribute to extended waiting times. These challenges are reported not only by patients but also by EMR users (healthcare personnel). Some of the problems identified during initial observations include system integration (bridging) issues between EMR and other platforms such as BPJS, limited digital competencies among healthcare workers, and resistance to organizational change and new technologies. These factors collectively contribute to delays in outpatient registration and service flow.

The urgency of this study lies in the critical need to optimize EMR utilization as a strategy to improve healthcare service quality. Effective EMR adoption can streamline clinical workflows, accelerate diagnostic processes, enhance interdepartmental coordination, and reduce medical errors arising from incomplete or inaccurate information. Furthermore, EMR systems can facilitate better communication between healthcare providers and patients, thereby increasing patient engagement in managing their own health.

Previous research has shown that EMR implementation positively influences the quality of healthcare services. Situmorang reported a significant association between successful EMR implementation and improvements in service effectiveness and hospital service quality, with a p -value < 0.05 , indicating that better EMR adoption leads to higher service quality for patients [4]. Similarly, a study by Yunisa and Gunawan concluded that EMR implementation contributes to outpatient service quality, although the magnitude of its contribution is moderated by other external factors beyond the EMR system itself [6].

While these studies share a common focus on the impact of EMR implementation on service quality or service effectiveness, the present study introduces a distinct analytical perspective. Unlike previous research, this study not only examines the direct relationship between EMR implementation and service quality but also investigates the moderating role of EMR in strengthening the influence of service quality on patient satisfaction. This approach provides a novel contribution by exploring how EMR functions as a moderating variable that enhances the relationship between service quality and patient satisfaction—an aspect that has received limited attention in prior studies.

The objective of this study is to analyze the direct effect of service quality on patient satisfaction (direct effect) and to examine the moderating effect of EMR implementation on the relationship between service quality and patient satisfaction at RSUD Madani, Central Sulawesi Province, Indonesia.

METHODS

This study was conducted at RSUD Madani, a public type-C hospital located in Central Sulawesi Province, Indonesia. The research took place from September to December 2025, covering the entire process of data collection, verification, and preliminary analysis. The hospital was selected as the study site because it was in the midst of transitioning from conventional paper-based medical records to an Electronic Medical Record (EMR) system, providing a relevant context for examining the moderating role of EMR implementation in healthcare service delivery.

The research employed a quantitative approach using a cross-sectional design, in which all variables were measured at a single point in time without any form of intervention. This design was chosen to capture the existing conditions of service quality, EMR implementation, and patient satisfaction simultaneously, allowing the relationships among these variables to be analyzed within the same temporal frame.

The study population consisted of all patients visiting RSUD Madani during the research period. The sample was selected using a non-probability accidental sampling technique, where respondents were included based on their availability and willingness to participate at the time of data collection. A total of ninety-five patients met the inclusion criteria and agreed to participate in the study. The research involved three main variables: service quality as the independent variable, patient satisfaction as the dependent variable, and EMR implementation as the moderating variable.

Data were collected using a structured questionnaire consisting of forty-three statements measured on a five-point Likert scale ranging from one (strongly disagree) to five (strongly agree). The questionnaire had undergone validity and reliability testing prior to use, ensuring that each item accurately represented the construct it was intended to measure. Service quality was assessed through dimensions related to responsiveness, reliability, assurance, empathy, and physical evidence. Patient satisfaction was measured through indicators reflecting patients' perceptions of service experience and overall satisfaction. EMR implementation was evaluated based on system usability, accessibility, perceived usefulness, and user experience among patients interacting with the digital registration and service processes.

The data processing procedure involved several sequential steps, including editing to check completeness, coding to categorize responses, sorting to organize the dataset, data entry into statistical software, cleaning to identify and correct inconsistencies, and extraction of relevant information for analysis. Descriptive analysis was used to summarize respondent characteristics and variable distributions, which were presented in the form of frequency tables and percentages. Inferential analysis was conducted using Structural Equation Modeling (SEM) to examine both the direct effect of service quality on patient satisfaction and the moderating effect of EMR implementation. SEM was selected because it allows simultaneous testing of complex relationships among latent variables. Parameter estimation within the SEM framework included weight estimates for generating latent variable scores based on the inner and outer models, path estimates that represented the strength and direction of relationships among latent variables and their indicators, and mean and location parameters that included regression constants and intercept values.

RESULTS

Measurement model assessment (outer model)

The assessment of the measurement model was conducted to evaluate the validity and reliability of all indicators used to measure the latent constructs. This evaluation included convergent validity, discriminant validity, and reliability testing using WarpPLS. The results demonstrate that the measurement model meets all required statistical criteria.

Convergent validity

Convergent validity was examined by assessing the loading factor of each indicator (Table 1). All indicators exceeded the minimum threshold of 0.70 and demonstrated statistical significance with p-values below 0.001, confirming that each indicator accurately reflects its respective construct. All indicators demonstrate strong convergent validity, confirming that the measurement model is statistically sound.

Table 1. Combined loading and cross loading

Indicator	Loading	P-Value	Description
X1.1	0.889	<0.001	Valid
X1.2	0.933	<0.001	Valid
X1.3	0.936	<0.001	Valid
X1.4	0.942	<0.001	Valid
X1.5	0.898	<0.001	Valid
Y1	0.822	<0.001	Valid
Y2	0.879	<0.001	Valid
Y3	0.932	<0.001	Valid
Y4	0.858	<0.001	Valid
X2	1.000	<0.001	Valid
X2*X1.1	0.933	<0.001	Valid
X2*X1.2	0.954	<0.001	Valid
X2*X1.3	0.962	<0.001	Valid
X2*X1.4	0.974	<0.001	Valid
X2*X1.5	0.950	<0.001	Valid

Table 2. Average Variances Extracted (AVE)

Variable	AVE	Requirement	Description
Service quality (X1)	0.846	>0.50	Valid
EMR implementation (X2)	0.911	>0.50	Valid
Patient satisfaction (Y)	0.763	>0.50	Valid

Table 3. Composite reliability coefficients

Variable	Composite reliability	Requirement	Description
Service quality (X1)	0.965	>0.70	Reliable
EMR implementation (X2)	0.981	>0.70	Reliable
Patient satisfaction (Y)	0.928	>0.70	Reliable

Table 4. Cronbach's Alpha coefficients

Variable	Cronbach's Alpha	Requirement	Description
Service quality (X1)	0.954	>0.70	Reliable
EMR implementation (X2)	0.976	>0.70	Reliable
Patient satisfaction (Y)	0.896	>0.70	Reliable

Table 5. Model fit and quality indices

Index	Value	P-Value	Criterion	Description
APC	0.504	<0.001	<0.05	Accepted
ARS	0.469	<0.001	<0.05	Accepted
AARS	0.457	<0.001	<0.05	Accepted
AVIF	1.000	—	≤5	Accepted
AFVIF	1.670	—	≤5	Accepted
GoF	0.643	—	≥0.36	Large
SPR	0.820	—	≥0.7	Accepted
RSCR	0.978	—	≥0.9	Accepted
SSR	1.000	—	≥0.7	Accepted
NLBCDR	1.000	—	≥0.7	Accepted

Discriminant validity

All constructs achieved Average Variance Extracted (AVE) above 0.50 (Table 2), indicating that each construct is empirically distinct and measures a unique conceptual domain. These results confirm that the constructs possess adequate discriminant validity.

Reliability testing

Reliability was assessed using composite reliability (Table 3) and Cronbach's alpha (Table 4). All constructs exceeded the minimum threshold of 0.70, indicating strong internal consistency. The results confirm that all constructs meet the reliability criteria.

Inner model

The inner model was evaluated to determine the strength and direction of the structural relationships among variables. The analysis included path coefficients, R-squared values, multicollinearity assessment, predictive relevance, and overall model fit (Table 5). The model demonstrates excellent fit, with all indices meeting or exceeding recommended thresholds.

Hypothesis testing

The hypothesis testing procedure in this study was designed to determine whether the relationships proposed in the structural model were statistically significant. As stated in the original document, the purpose of this stage was *"untuk menguji pengaruh langsung (direct effect) variabel kualitas layanan terhadap kepuasan pasien dan efek moderasi (moderating effect) variabel penerapan RME terhadap kepuasan pasien."* The analysis was conducted in two sequential phases. The first phase examined the direct effect of service quality on patient satisfaction without including the moderating variable. The second phase incorporated the moderating role of Electronic Medical Record (EMR) implementation to determine whether it strengthened the relationship between service quality and patient satisfaction.

The hypothesis testing relied on WarpPLS, which uses simulation-based statistical estimation. A significance level of 5% was applied, and hypotheses were accepted when the p-value was below 0.05. The results of each phase are presented below.

First-stage structural model testing (direct effect)

The first stage of the structural model analysis aimed to determine whether service quality exerted a direct and statistically significant influence on patient satisfaction. This phase evaluated the strength and direction of the relationship between the independent and dependent variables. The structural model generated by WarpPLS is illustrated in the Figure 1.

The direct effect model produced an R-square value of 0.55. This indicates that 55% of the variance in patient satisfaction can be explained by service quality, while the remaining 45% is influenced by other variables not included in the model. This level of explanatory power demonstrates that service quality plays a substantial role in shaping patient satisfaction within the hospital context. The statistical significance of the estimated parameter was evaluated using the path coefficient output.

The results are presented in Table 6. The path coefficient of 0.740, combined with a p-value below 0.001, confirms a strong and statistically significant positive relationship between service quality and patient satisfaction. This finding supports the theoretical expectation that improvements in service quality lead to higher levels of patient satisfaction.

Second-stage structural model testing (moderating effect)

The second stage of hypothesis testing incorporated the moderating variable, EMR implementation, to determine whether it strengthened the relationship between service quality and patient satisfaction. The structural model generated for this phase is shown in the Figure 2.

The moderating effect model produced an R-square value of 0.47. This indicates that when EMR implementation is included as a moderating variable, the combined influence of service quality and EMR implementation explains 47% of the variance in patient satisfaction. Although slightly lower than the direct effect model, this value reflects the added complexity of incorporating an interaction term into the structural model.

Further analysis was required to determine whether the moderating effect was statistically significant. The significance of the interaction term was assessed using the path coefficient output, as shown in Table 7.

The interaction term representing the moderating effect of EMR implementation yielded a path coefficient of 0.271 with a p-value of 0.003. This confirms that EMR implementation significantly moderates the relationship between service quality

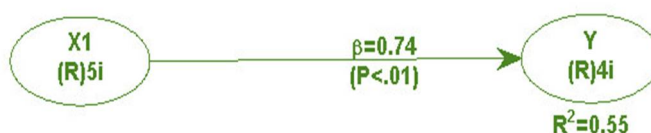


Figure 1. Direct effect of service quality on patient satisfaction

Table 6. Direct effect model results

Relationship	Path coefficient	p-value	Standard error	Description
Service quality (X1) → Patient satisfaction (Y)	0.740	<0.001	0.083	Significant

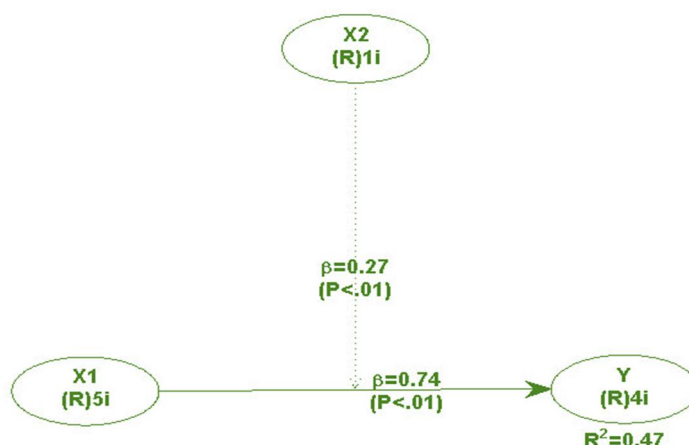


Figure 2. Moderating effect of EMR implementation

Table 7. Moderating effect model results

Relationship	Path coefficient	p-value	Standard error	Description
Service quality (X1) → Patient satisfaction (Y)	0.737	<0.001	0.084	Significant
EMR implementation (X2) moderating X1 → Patient satisfaction Y	0.271	0.003	0.095	Significant

and patient satisfaction. In practical terms, this means that the positive influence of service quality on patient satisfaction becomes stronger when EMR systems are effectively implemented.

The results demonstrate that EMR implementation does not merely function as a technological tool but plays a strategic role in enhancing the overall patient experience. By improving information flow, reducing administrative delays, and supporting clinical decision-making, EMR systems amplify the benefits of high-quality service delivery.

DISCUSSION

Service quality, patient satisfaction, and the moderating role of electronic medical records

Service quality in hospitals encompasses all forms of activities undertaken to meet consumer expectations, as stated in the original document: *"Kualitas pelayanan rumah sakit adalah segala bentuk aktivitas yang dilakukan oleh rumah sakit guna memenuhi harapan konsumen"* [7]. In this context, service is understood as the set of intangible offerings delivered by service providers, including convenience, speed, interpersonal relationships, competence, and courtesy, all of which are expressed through attitudes and behaviors aimed at achieving consumer satisfaction [8]. Within this study, service quality refers specifically to the ability of RSUD Madani to deliver services as promised—promptly, accurately, reliably, and with a high degree of trustworthiness. The indicators used to measure service quality include Tangible, Empathy, Reliability, Responsiveness, and Assurance.

The statistical analysis demonstrated that service quality has a strong and significant influence on patient satisfaction. The path coefficient obtained was 0.740 with a p-value <0.001, indicating that *"ada pengaruh positif dan signifikan antara kualitas layanan terhadap kepuasan pasien"*. This means that 74% of patient satisfaction at RSUD Madani is influenced by the quality of services provided by healthcare personnel. Such a substantial effect underscores the central role of service quality in shaping patient experiences and perceptions.

Service quality is inherently multidimensional and subjective, as its indicators may vary among individuals involved in the service process. The emergence of new competitors in the healthcare sector further intensifies the need for hospitals to maintain high service standards to retain and attract patients [8]. According to the researcher's interpretation, the fundamental principle guiding healthcare service delivery should be the fulfillment of patient needs and expectations. Service quality is thus defined as the degree of excellence in meeting consumer demands. As noted in the document, *"Kualitas pelayanan dapat diketahui dengan cara membandingkan persepsi para konsumen atas pelayanan yang nyata-nyata mereka terima... dengan pelayanan yang sesungguhnya mereka harapkan"* [9].

The first dimension, Tangible, reflects the physical evidence of service delivery, including facilities, equipment, materials, and the appearance of hospital personnel [10]. The findings indicate that RSUD Madani has adequate physical facilities and infrastructure to support both healthcare services and staff development activities. The researcher assumes that service quality is influenced by multiple factors, such as staff competence, the quality of equipment used in service processes, and organizational culture. Staff competence is shaped by education level, years of experience, and training received [11]. Equipment quality affects procedures, processing speed, and the quality of service outputs.

Service quality is also shaped by the perspectives of both service users (patients and families) and service providers (doctors, nurses, and other staff) [12]. As a capital-intensive, labor-intensive, and technology-intensive institution, RSUD Madani must continuously update its facilities, including medical equipment, pharmaceuticals, buildings, and supporting tools. Adequate facilities contribute directly to higher patient satisfaction.

Patient satisfaction itself is a key indicator of service quality. Kotler defines satisfaction as *"a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance with expectations"* [13]. Measuring patient satisfaction is challenging due to its subjective nature, influenced by individual characteristics such as socioeconomic status, education, cultural background, personality, and mental attitudes [14].

The second dimension, Reliability, refers to the ability to deliver healthcare services accurately and on time. Reliability is often considered the most important dimension across service industries because service outputs are non-standardized and heavily dependent on human performance [15]. The study found that service time at RSUD Madani did not always meet established standards, particularly due to delays in physician services. This discrepancy between expectations and actual service delivery affects patient satisfaction. As noted by Tjiptono, satisfaction is the fulfillment of expectations [16], while Kotler emphasizes the emotional response resulting from comparing performance with expectations [17]. Therefore, reliability is a critical determinant of patient satisfaction.

The third dimension, Responsiveness, reflects the willingness and readiness of healthcare personnel to assist patients. The study found that responsiveness at RSUD Madani met established standards. Responsiveness demonstrates the hospital's commitment to providing convenience, speed, interpersonal connection, competence, and courtesy in service delivery [19].

The fourth dimension, Assurance, relates to the knowledge, courtesy, and trustworthiness of healthcare personnel. Assurance reduces perceived risks among patients [20]. The study found that both healthcare workers and patients at RSUD Madani are protected by health and accident insurance, which enhances staff confidence and enables them to provide optimal care.

Moderating role of electronic medical records

The implementation of Electronic Medical Records (EMR) plays a vital role in improving service quality at RSUD Madani. EMR enhances data integrity, accuracy, financial efficiency, accessibility, and overall service quality. It enables faster access to patient information, reduces the risk of data loss or duplication, and improves interprofessional coordination.

The moderating effect analysis revealed a path coefficient of 0.271 with a p-value of 0.003, indicating a significant positive moderating effect of EMR on the relationship between service quality and patient satisfaction. This means that EMR implementation strengthens the influence of service quality on patient satisfaction by 27.1%. According to the researcher's interpretation, this improvement is largely due to faster registration processes, reduced documentation errors, and more accurate clinical decision-making.

The study also found that EMR enhances diagnostic speed, interdepartmental coordination, and reduces medical errors. EMR facilitates better communication between healthcare providers and patients, increasing patient engagement in managing their health. It also supports data collection for research and analysis, contributing to improved understanding of disease patterns and treatment effectiveness [21].

However, EMR implementation at RSUD Madani is not without challenges. Technical issues, particularly internet connectivity problems, often disrupt service processes. In such cases, staff revert to conventional paper-based methods. The success of EMR also depends heavily on staff acceptance and competence. Comprehensive training is essential to ensure effective use of the system, as mandated by *Permenkes No. 24 Tahun 2022*, which requires healthcare facilities to provide training and socialization for EMR users [1].

Based on the analysis, EMR implementation at RSUD Madani represents a progressive step toward more efficient, safe, and integrated healthcare services. Although challenges remain—such as technical constraints and the need for continuous staff training—the long-term benefits of EMR in enhancing service quality and patient satisfaction make it a valuable investment for the hospital and the broader community.

The study acknowledges limitations, particularly the inability to examine external technical issues such as system integration (bridging) between RSUD Madani's information system and BPJS Kesehatan.

CONCLUSION

The findings of this study lead to a clear and evidence-based conclusion. The analysis demonstrates that service quality exerts a significant positive influence on patient satisfaction, confirming that higher levels of service quality at RSUD Madani are consistently associated with higher levels of patient satisfaction. Furthermore, the study establishes that the implementation of Electronic Medical Records (EMR) strengthens this relationship, indicating that EMR functions as an effective moderating variable. In other words, when EMR is applied effectively, the positive impact of service quality on patient satisfaction becomes even stronger.

Ethical consideration, competing interest and source of funding

-Ethical considerations were upheld throughout the research process. All participants were informed about the purpose, procedures, and voluntary nature of the study before providing consent. No personal identifiers were collected, and all data were treated confidentially and used solely for academic purposes. The study adhered to ethical principles of autonomy, beneficence, non-maleficence, and justice in accordance with standard guidelines for health research.

-There is no conflict of interest related to this publication.

-Source of funding is authors.

REFERENCES

1. Kemenkes RI. Peraturan Menteri Kesehatan Republik Indonesia Nomor 24 tahun 2022 tentang rekam medis. Jakarta: Kementerian Kesehatan Republik Indonesia; 2022.
2. Putri RD, Zulfikar T, Asnar ESM, Nugroho T, Paramarta V. Pengaruh implementasi rekam medis elektronik dan waktu tunggu rawat jalan terhadap loyalitas pasien serta kepuasan sebagai variabel intervening (Studi di Poliklinik Rumah Sakit Umum Mutiasari – Riau). *Innov J Soc Sci Res*. 2025;5(1):6204–15.
3. Nurhidayati. Analisis hubungan persepsi mutu pelayanan rekam medis dengan kepuasan pasien di Rumah Sakit Tentara Bhakti Wira Tamtama Semarang. *J Kebijak Kesehat Indones*. 2023;2(2):1–13.
4. Situmorang M, Mulyana, Natasha. Efektivitas pelayanan dengan keberhasilan rekam medis elektronik di Rumah Sakit Ibu Anak Athaya Medika. *J Ilm Perekam dan Inf Kesehat Imelda*. 2025;10(1):59–68.
5. Suherman WK, Wahab S, Soelistjaningroem M. Pengaruh kualitas pelayanan rekam medis terhadap kepuasan pasien rawat jalan di Rumah Sakit Al Ihsan Provinsi Jawa Barat. *JHMSS*. 2024;2(1):54–60.
6. Yunisa C, Gunawan E. Pengaruh implementasi rekam medis elektronik terhadap kualitas pelayanan rawat jalan di rumah sakit. *Open J Syst*. 2024;18(1978):2873–80.
7. Yusuf JIM. Pengaruh kualitas pelayanan terhadap kepuasan masyarakat (Studi pada Rumah Sakit Umum Daerah Meuraxa Kota Banda Aceh). *J Penelit Inov*. 2022;2(3):1–12.
8. Ishak M, Waworuntu AY. Pengaruh kualitas pelayanan pegawai terhadap kepuasan pasien Puskesmas Ballaparang Kota Makassar. *BRAND*. 2024;1(2):1–12.
9. Diansari P. Hubungan manajemen model asuhan keperawatan profesional tim dengan kualitas pelayanan keperawatan di ruang rawat inap rumah sakit. *J Ilmu dan Teknol Kesehatan*. 2025;2(1):22–36.
10. Indrayathi PA, Listyowati R, Nopiyani NMS, Ulandari LPS. Quality of services in health care center with general services agency. *Kesmas*. 2024;9(2):164–70.
11. Lestari TRP. The efforts to improve the quality of service in Puskesmas through health human resource management approach. *Kajian*. 2022;23(3):157–74.
12. Miska. Pengaruh kualitas pelayanan terhadap kepuasan pasien pengguna Badan Penyelenggara Jaminan Sosial Kesehatan pada Rumah Sakit Pendidikan Unhas Makassar. *J Kebijak Kesehatan Indonesia*. 2020;2(2):32–44.
13. Cahyono AD. Literature study of service quality towards patients satisfaction in hospitals. *JIP*. 2022;2(2):1–6.
14. Denhardt JV, Denhardt RB. The new public service. Expanded ed. New York: M.E. Sharpe; 2021. p. 1–240.
15. Singh V, Sharma MP, Jayapriya K, Kumar BK, Chander RN, Kumar BR. Service quality, customer satisfaction and customer loyalty: A comprehensive literature review. *J Surv Fish Sci*. 2023;10(4):3457–64.
16. Hardiyansyah. Kualitas pelayanan publik. Edisi revisi. Yogyakarta: Gava Media; 2023. p. 1–328.
17. Vanchapo AR, Magfiroh. Mutu pelayanan kesehatan dan kepuasan pasien. Jawa Timur: Tata Mutiara Hidup Indonesia; 2022. p. 1–50.
18. Supartiningsih S. Kualitas pelayanan kepuasan pasien rumah sakit: Kasus pada pasien rawat jalan. *J Medicoeticolegal dan Manaj Rumah Sakit*. 2024;6(1):9–15.
19. Sabila MQ. Evaluasi kualitas layanan dengan pendekatan SERVQUAL dan importance performance analysis pada Flarent Salon Yogyakarta. *J Ilm Mns dan Kesehat*. 2022;2(3):12–23.
20. Mahfudhoh, Muslimin I. Pengaruh kualitas pelayanan terhadap kepuasan pasien pada Rumah Sakit Umum Daerah Kota Cilegon. *JIMKES J Ilm Manaj Kesatuan*. 2024;8(1):39–46.
21. Ikawati FR. Efektivitas penggunaan rekam medis elektronik terhadap peningkatan kualitas pelayanan pasien di rumah sakit. *Dinasti Res*. 2024;6(3):288–98.