

# **Improving Patient Satisfaction: The Crucial Role of Lead Time and Room Facilities in Outpatient Services at Bandung Kiwari Hospital**

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## **Abstract**

Lead time and room facilities are critical factors influencing patient satisfaction with hospital services. This study aims to analyze the effects of lead time and room facilities on patient satisfaction in the Outpatient Department of Bandung Kiwari Hospital (RSUD Bandung Kiwari). The research employs a descriptive-verify quantitative method, involving 150 respondents selected through purposive sampling from an outpatient population of 5,399 in July 2023. Data were collected using a Likert scale questionnaire. The results reveal that the majority of patients experienced lead times exceeding 60 minutes (65.3%), which is beyond the established standard. Conversely, room facilities were generally rated as highly satisfactory (81.95%), despite shortcomings in bathroom cleanliness. Overall patient satisfaction was categorized as good (79.26%), although lead time received a lower score (58%). Regression analysis indicates that lead time and room facilities have a significant simultaneous effect on patient satisfaction ( $F = 48.662$ ,  $p = 0.000$ ), with room facilities ( $\beta = 0.310$ ,  $p = 0.000$ ) having a greater partial influence compared to lead time ( $\beta = 0.234$ ,  $p = 0.004$ ). This study concludes that better management of lead time and improved quality of room facilities are essential for enhancing patient satisfaction. The findings highlight the importance of optimizing digital queue systems, improving cleanliness, and conducting regular evaluations through patient satisfaction surveys to ensure continuous service improvement.

**Keywords:** lead time, room facilities, patient satisfaction, RSUD Bandung Kiwari.

## **INTRODUCTION**

One of the key factors influencing patient satisfaction is the length of time spent waiting for medical services. Extended lead times have been shown to significantly decrease patient satisfaction in hospital settings (Widiatama, 2018). Lead time, defined as the total duration from patient registration to the arrival at the physician's examination room, serves as a critical indicator of healthcare service quality. Long lead times often reflect inefficiencies in hospital service delivery and can undermine the perceived professionalism and responsiveness of care (Esti et al., 2013).

Hospital lead time remains a prevalent issue in healthcare delivery, frequently cited by patients as a source of dissatisfaction. According to previous studies, lead time is a key determinant of service quality, reflecting how well a hospital manages patient flow in accordance with expectations. When hospitals neglect prolonged lead times, it not only reduces patient satisfaction but may also affect the perceptions of accompanying family members. Despite its importance, lead time is often overlooked by hospital administrative systems (Angraini et al., 2023).

Lead times can be categorized as follows: more than 90 minutes is considered long, 30–60 minutes is moderate, and less than 30 minutes is considered fast (Esti et al., 2013). According to the Indonesian Ministry of Health Regulation No. 129/Menkes/SK/II/2008, the maximum standard lead time in hospitals is 60 minutes. In addition to lead time, another significant contributor to patient satisfaction is the quality of hospital facilities. Cleanliness, comfort, and the availability of supporting infrastructure are key elements that enhance the patient experience and shape perceptions of service quality (Tjiptono & Chandra, 2016).

Extended lead times are frequently associated with limited-service capacity, inefficient queueing systems, and suboptimal resource management. Previous studies have shown that prolonged lead periods negatively affect patient satisfaction, whereas well-maintained facilities can improve comfort and perceived service quality (Angraini et al., 2023; Tjiptono & Chandra, 2016). Therefore, effective management of these two factors is essential for improving hospital service quality.

Outpatient care services represent the majority of hospital activities. Outpatient clinics provide diagnostic and therapeutic services that do not require inpatient care and are typically completed within 24 hours (Anggraeni & Kurniawan, 2019). To ensure smooth service delivery, outpatient procedures must follow proper administrative protocols. However, service delays often occur due to incomplete or delayed documentation, thereby increasing patient lead times (Wulan, 2020).

Bandung Kiwari Regional General Hospital (RSUD Bandung Kiwari), located at Jl. KH. Wahid Hasyim No. 311 in Bandung City, was officially inaugurated on January 11, 2022. Formerly known as the Mother and Child Hospital (RSKIA) Bandung, its renaming reflects an expansion of services to include the general population. RSUD Bandung Kiwari currently provides three main types of care: emergency services, outpatient care, and inpatient care (RSUD Bandung Kiwari, 2022).

A patient satisfaction survey conducted between January and July 2023 at RSUD Bandung Kiwari revealed that 30 out of 96 respondents expressed dissatisfaction with outpatient services. About 30% cited excessive lead times, averaging 2 to 3 hours. Despite the staff's friendliness and courtesy, patients reported substandard facilities, such as poor toilet hygiene, inconvenient parking, and inadequate public address systems, which made announcements unclear and contributed to overall dissatisfaction.

The issue of prolonged lead times at RSUD Bandung Kiwari is partly due to the inconsistent use of queueing methods. Although an online queueing system is available, many patients still rely on conventional paper-based ticketing due to difficulties accessing or navigating the digital system. The coexistence of manual and online systems leads to inefficiencies. Standardizing the online queueing system, requiring all patients to pre-register with designated arrival times, could significantly reduce lead periods and improve service flow.

Prolonged lead times and inadequate facility conditions are major contributors to patient dissatisfaction. Properly managing lead time and enhancing physical infrastructure can significantly improve patient satisfaction. Addressing these two aspects should be a priority for hospitals aiming to optimize the quality of healthcare delivery. The objective of this research is to examine the influence of lead time and room facility quality on patient satisfaction in the outpatient department of RSUD Bandung Kiwari. Specifically, the study aims to analyze the partial and simultaneous effects of lead time and room facilities on patient satisfaction, identify key areas needing improvement, and provide evidence-based recommendations to enhance service efficiency and infrastructure. By examining these factors, the study aims to contribute to the optimization of outpatient service delivery and

support hospital management in developing effective strategies to enhance overall patient experience and satisfaction.

Several previous studies have investigated the effects of lead time and facility quality on patient satisfaction using similar quantitative approaches. One study titled “Effect of Waiting Time on Patient Satisfaction in Outpatient: An Empirical Investigation” employed a Likert-scale questionnaire and regression analysis to examine how perceived and actual waiting times influence satisfaction, finding that perceived waiting time had a more significant impact than actual waiting time. Another study conducted in China, “Factors Associated with Outpatient Satisfaction in Provincial Tertiary Hospitals in Nanchang”, used structural equation modeling to assess the influence of waiting time, facility conditions, and physician communication on patient satisfaction, concluding that physical environment and waiting time both significantly affected satisfaction either directly or indirectly (Zhang et al., 2023; Zhou et al., 2022).

Compared to these studies, the present research introduces a distinct novelty by focusing on a newly established public hospital in Indonesia (RSUD Bandung Kiwari) that operates with a hybrid queueing system (manual and digital). It uniquely examines the simultaneous influence of lead time and room facility quality using multiple linear regression, providing local empirical insights aligned with national healthcare standards. Furthermore, it offers actionable recommendations tailored to Indonesian hospital settings, including digital queue optimization and infrastructure improvement, making it both scientifically valuable and practically applicable.

## **METHOD**

### **Research Design**

This study is a quantitative descriptive verification study. According to Sugiyono (2010), quantitative research is based on numerical data. Descriptive methods aim to describe a variable or variables without comparing or relating them to other variables. Verification methods are used to test hypotheses that have been formulated beforehand, usually involving a population or sample (Sugiyono, 2010).

### **Population and Sample**

The population of this study consists of all outpatients at RSUD Bandung Kiwari in July 2023, totaling 5,399 individuals. The sample was selected as a representative subset of the population. Sampling was done due to limitations in time, resources, and the large population size, making it impractical to study the entire population directly. Therefore, a representative sample was chosen, as suggested by Sugiyono (2017).

### **Data Collection Techniques**

This study employed two data collection techniques: questionnaires and document analysis. Questionnaires were used to collect data on patient satisfaction, lead time, and facility quality. Document analysis was used to collect data on the profile of RSUD Bandung Kiwari and other relevant information.

### **Operationalization of Variables**

This study consists of three variables:

1. **Lead Time:** The duration from the patient's arrival at the registration desk to the time they are called for examination by a doctor, nurse, or midwife (Esti et al., 2013).
2. **Facility Quality:** Facilities refer to anything that facilitates the process and smoothens the activities to achieve a specific goal. If the available facilities support the service

well, patients will feel comfortable and calm during their treatment at the hospital (Kotler, P. & Keller, 2012).

3. Patient Satisfaction: Patient satisfaction refers to the perception of the quality of healthcare services received. Patients feel satisfied when the service provider meets or exceeds their expectations. The higher the level of satisfaction, the better the quality of healthcare services perceived by patients (Supartiningsih, 2017).

### Data Analysis

This study used quantitative analysis, specifically multiple linear regression analysis. Multiple linear regression analysis was employed to test the hypotheses about the effects of lead time and facility quality on patient satisfaction.

### Hypothesis Testing

Hypothesis testing in this study used F-tests and t-tests. F-tests were used to test the hypotheses simultaneously, while t-tests were used to test the hypotheses partially.

This study provides an understanding of the effects of lead time and facility quality on patient satisfaction at RSUD Bandung Kiwari. The results of this study can be used as a reference to improve the quality of healthcare services at RSUD Bandung Kiwari.

## RESULT AND DISCUSSION

### Respondent Characteristics

**Table 1. Characteristics of Research Respondents**

Characteristics	Frequency	Percentages
<b>Sex</b>		
Male	46	30.7%
Female	104	69.3%
<b>Total</b>	<b>150</b>	<b>100%</b>
<b>Education</b>		
Elementary School	14	9.3%
Junior High School	30	20.0%
Senior High School	69	46.0%
Varsity	37	24.7%
<b>Total</b>	<b>150</b>	<b>100%</b>
<b>Job</b>		
Homemakers	74	49.3%
Private	50	33.3%
Government	10	6.7%
Others	16	10.7%
<b>Total</b>	<b>150</b>	<b>100%</b>
<b>Frequency of using outpatient services</b>		
1-2 times	49	32.7%
3-4 times	42	28.0%
5-6 times	31	20.7%
Others	28	18.7%
<b>Total</b>	<b>150</b>	<b>100.00%</b>
<b>Lead Time</b>		
<30 minutes	3	2.0%

30-60 minutes	44	29.3%
>60 minutes	98	65.3%
Others	5	3.3%
<b>Total</b>	<b>150</b>	<b>100.00%</b>

Table 1 shows that the average age of respondents is 38.61 years, with a range of 18-76 years. The majority of respondents are female (69.3%) and have a high school education (46%). Most respondents work as homemakers (49.3%) and have used the outpatient service 1-2 times (32.7%).

### Lead Time and Facility Quality

Table 2 shows that respondents have varying perceptions of lead time at RSUD Bandung Kiwari. The majority of respondents (53.2%) disagree that the lead time is less than 60 minutes, while 46.7% agree that the lead time meets their expectations. However, 71.0% of respondents agree that the registration process is fast.

**Table 2. Respondents' Responses Based on Indicators from the Lead Time**

No	Statements	Dimension				Total	Score
		Strongly Disagree	Disagree	Agree	Strongly Agree		
1	Do you usually wait less than 60 minutes to get outpatient services at RSUD Bandung Kiwari?	34 22.7%	70 46.7%	39 26.00%	7 4.70%	150 100%	319
2	Is the lead time duration according to your expectations?	10 6.7%	84 56.0%	33 22.00%	23 15.30%	150 100%	369
3	Is the registration service at RSUD Bandung Kiwari fast?	3 2.0%	51 34.0%	63 42.00%	33 22.00%	150 100%	426
4	Was your lead time from registration to the doctor's examination fast?	19 12.7%	71 47.3%	45 30.00%	15 10.00%	150 100%	356
5	Is the estimated lead time clearly explained at registration?	1 0.7%	13 8.7%	107 71.30%	29 19.30%	150 100%	464
<b>Total Score</b>							<b>1934</b>
<b>Ideal Score</b>							<b>3000</b>
<b>Percentage Total Score</b>							<b>64.47%</b>

Table 3 shows that respondents have a positive perception of the facility quality at RSUD Bandung Kiwari. The majority of respondents (83.8%) agree that the lead room is clean and comfortable, while 84.8% agree that the examination room is clean.

**Table 3. Respondents' Responses Based on Room Facilities Indicators**

No	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree	Total	Score
1	Clean patient lead room	0 0.0%	1 0.7%	95 63.3%	54 36.0%	150 100%	503
2	Comfortable patient lead room	0 0.0%	0 0.0%	97 64.7%	53 35.3%	150 100%	503

3	Clean patient examination room	0 0.0%	0 0.0%	91 60.7%	59 39.3%	150 100%	509
4	Health workers look neat	0 0.0%	0 0.0%	94 62.7%	56 37.3%	150 100%	506
5	The lighting in the patient examination room is quite good.	0 0.0%	0 0.0%	92 61.3%	58 38.7%	150 100%	508
6	Medical equipment used is clean and proper	0 0.0%	0 0.0%	83 55.3%	67 44.7%	150 100%	517
7	Clean and comfortable bathroom	5 3.3%	53 35.3%	56 37.3%	36 24.0%	150 100%	423
8	Clean place of worship	0 0.0%	7 4.7%	96 64.0%	47 31.3%	150 100%	490
9	The number of seats in the polyclinic lead room is sufficient	1 0.7%	19 12.7%	90 60.0%	40 26.7%	150 100%	469
10	Accessibility for special needs patients or the elderly (wheelchair) is available	1 0.7%	5 3.3%	97 64.7%	47 31.3%	150 100%	490
11	There are clear directions in all rooms.	0 0.0%	3 2.0%	103 68.7%	44 29.3%	150 100%	491
<b>Total Skor</b>							<b>5409</b>
<b>Ideal Skor</b>							<b>6600</b>
<b>Percentage Total Skor</b>							<b>81.95%</b>

Table 4 shows that respondents have varying perceptions of patient satisfaction at RSUD Bandung Kiwari. The majority of respondents (70.0%) agree that the service received meets their expectations, while 66.7% agree that they feel better after using the service.

**Table 4. Respondents' Responses Based on Indicators of Patient Satisfaction Dimensions**

No	Statements	Strongly Disagree	Disagree	Agree	Strongly Agree	Total	Score
1	Services received by patients following the desired expectations	0 0.0%	2 1.3%	105 70.0%	43 28.7%	150 100%	491
2	I feel a good change after using the services of RSUD Bandung Kiwari	0 0.0%	0 0.0%	100 66.7%	50 33.3%	150 100%	500
3	I have a high level of trust in the medical staff of Bandung Kiwari Regional Hospital	0 0.0%	1 0.7%	102 68.0%	47 31.3%	150 100%	496
4	I feel comfortable with the facilities available	0 0.0%	9 6.0%	88 58.7%	53 35.3%	150 100%	494
5	I am satisfied with the lead time for outpatient services at Bandung Kiwari Regional Hospital	9 6.0%	98 65.3%	29 19.3%	14 9.3%	150 100%	348
6	I would recommend RSUD Bandung Kiwari to my family or friends based on my experience.	0 0.0%	2 1.3%	99 66.0%	49 32.7%	150 100%	497

7	I will use the services of RSUD Bandung Kiwari Again	0 0.0%	1 0.7%	95 63.3%	54 36.0%	150 100%	503
							<b>Total Skor</b>
							<b>3329</b>
							<b>Ideal Skor</b>
							<b>4200</b>
							<b>Percentage Total Skor</b>
							<b>79.26%</b>

Multiple linear regression analysis revealed that lead time (X1) significantly affects patient satisfaction (Y) with a p-value of 0.004 ( $<0.05$ ). The positive regression coefficient of 0.234 indicates that better management of lead time correlates with higher patient satisfaction. Lead time is a critical determinant of healthcare service quality, aligning with previous studies emphasizing its role in shaping patient experience and perceptions of efficiency. According to the SERVQUAL model by Parasuraman et al. (1988), shorter lead times enhance perceived responsiveness, thereby increasing satisfaction (Parasuraman et al., 1988). Previous study similarly found that wait times below patient expectations improve satisfaction, while prolonged waits induce stress and negative perceptions. In Indonesia, cultural and social factors influence tolerance to lead times, with public hospital patients generally more tolerant than private hospital patients; however, expectations are rising alongside increased access to information (Morales et al., 2024; Zhang et al., 2023). The regression coefficient suggests a moderate but significant relationship, emphasizing lead time management as a strategic priority. Nonetheless, the coefficient of determination ( $R^2 = 0.398$ ) indicates that only 39.8% of satisfaction variability is explained by lead time and room facilities, with other factors like medical staff interaction and administrative clarity contributing to the remainder. Thus, hospitals should address both lead time standards and holistic patient experience improvements.

A short lead time enhances the perception of service efficiency and reduces patient stress, as emphasized by previous studies. On the other hand, facilities that are comfortable, clean, and modern not only improve physical comfort but also have a positive psychological impact, accelerate recovery, and increase trust in the hospital (Alrajhi et al., 2020; Ulrich et al., 2008). These findings highlight the need for a holistic approach to improving service quality, where physical facilities and time management must be improved simultaneously to achieve optimal patient satisfaction, especially in hospitals like RSUD Bandung Kiwari, which serves a community with continually evolving expectations.

**Table 5. Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	8.010	1.450			5.526	.000
Lead Time (X1)	.234	.080	.203		2.918	.004
Room Facility (X2)	.310	.041	.524		7.547	.000

The study found room facilities (X2) significantly influence patient satisfaction (Y) with a p-value of 0.000 ( $<0.05$ ) and a regression coefficient of 0.310, indicating that improvements in room facilities have a stronger impact on satisfaction compared to lead time. Quality physical environments, encompassing cleanliness, comfort, lighting, ventilation, and accessibility, directly affect patient perceptions and overall experience. The findings are consistent with the SERVQUAL tangibility dimension (Parasuraman et al., 1988) and studies such as Ibrahim (2023), which identify physical facility quality as a key predictor of satisfaction (Ibrahim & Candra, 2023). Psychological benefits are also critical: supportive environmental design reduces patient anxiety and promotes recovery, as demonstrated by Ulrich et al (Ulrich et al., 2008). Poor conditions, conversely, increase stress and dissatisfaction. Functionality is as vital as aesthetics; amenities like comfortable beds, adequate medical equipment, temperature control, and easy bathroom access all contribute positively (Amankwah et al., 2019). Additionally, room facilities influence patient trust and loyalty, enhancing the hospital's professional image and likelihood of patient recommendations (Muraina et al., 2024). Despite the significance, 60.2% of satisfaction variation remains unexplained, suggesting the need for comprehensive approaches including interpersonal communication and administrative processes. Therefore, improving physical infrastructure alongside service efficiency is essential for elevating patient satisfaction.

### **The Effect of Lead Time and Facility Quality on Patient Satisfaction**

Multiple Linear Regression Model Testing shows that lead time and facility quality have a significant effect on patient satisfaction. The regression coefficient of lead time is 0.234, indicating that a one-unit decrease in lead time will increase patient satisfaction by 0.234 units. The regression coefficient of facility quality is 0.310, indicating that a one-unit increase in facility quality will increase patient satisfaction by 0.310 units.

The simultaneous impact of lead time and room facilities on patient satisfaction was confirmed by the ANOVA F-test ( $p = 0.000$ ,  $F = 48.662$ ), indicating a robust regression model. Both variables collectively contribute significantly to patients' perceptions of outpatient service quality at RSUD Bandung Kiwari. This supports the SERVQUAL model's emphasis on non-medical service factors, especially the tangible dimension, in shaping customer experience (Parasuraman et al., 1988). Room facilities showed a stronger influence than lead time, consistent with literature highlighting the critical role of physical environment in overall service quality perception (Gremler et al., 2018). However, the model's  $R^2$  value of 0.398 reflects that a majority of satisfaction determinants remain unaccounted for, including interpersonal communication, medical trust, and treatment outcomes (Andaleeb, 2001). Future studies should consider multidimensional modeling approaches, such as structural equation modeling, to better capture these complex relationships. From a management perspective, reducing lead times through efficient scheduling and queue management, alongside investments in physical infrastructure, can enhance patient satisfaction, loyalty, and hospital reputation. These findings provide actionable insights for strategic planning, marketing, and branding to meet growing patient expectations and competitive healthcare markets.

The results of this study show that lead time and facility quality have a significant effect on patient satisfaction at RSUD Bandung Kiwari. Reducing lead time and improving facility quality can increase patient satisfaction. However, there is still room for improvement in managing lead time and improving facility quality. This study also shows that respondents have varying perceptions of lead time and facility quality at RSUD Bandung Kiwari. The majority of respondents disagree that the lead time is less than 60 minutes, while most respondents agree that the registration process is fast.



The results of this study are consistent with the Service Quality (SERVQUAL) theory, which states that patient satisfaction is influenced by five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Lead time and facility quality are part of the tangibles dimension that affects patient satisfaction. This study has practical implications for RSUD Bandung Kiwari to improve patient satisfaction. RSUD Bandung Kiwari can improve patient satisfaction by reducing lead time and improving facility quality. Additionally, RSUD Bandung Kiwari can also improve patient satisfaction by improving the quality of medical and non-medical services. This study also has theoretical implications for future research on patient satisfaction. This study shows that lead time and facility quality are important factors that affect patient satisfaction, and that improving these factors can increase patient satisfaction.

In conclusion, this study provides evidence that lead time and facility quality are important factors that affect patient satisfaction at RSUD Bandung Kiwari. The results of this study can be used to improve patient satisfaction by reducing lead time and improving facility quality.

## CONCLUSION

This study found that the majority of patients at the Outpatient Installation of RSUD Bandung Kiwari experienced lead times exceeding the established standards, whereas the overall condition of the facility's rooms was rated very well, with cleanliness, especially of the restrooms, requiring improvement. Patient satisfaction was generally good, with high ratings for trust in medical staff, facility comfort, and willingness to recommend the hospital; however, lead time was a notable area of dissatisfaction. Statistical analysis demonstrated that both lead time and room facilities significantly influenced patient satisfaction, with room facilities having a greater impact. These findings highlight the need to enhance facility quality and service efficiency to improve overall patient satisfaction.

Based on these results, it is recommended that RSUD Bandung Kiwari implements digital administration systems to optimize registration and scheduling processes, thereby reducing lead times. Efforts should focus on improving cleanliness and comfort, particularly in restroom maintenance, through regular monitoring and adequate sanitation provisions. Continuous training for administrative and medical staff is essential to elevate service quality. Transparency regarding expected lead times should be communicated to patients to better manage expectations and perceptions of care. Additionally, upgrading lead areas with sufficient seating, ventilation, and lighting will enhance patient experience.

For future research, developing a more comprehensive patient satisfaction model that includes various hospital service units is suggested to gain holistic insights. Longitudinal studies are needed to evaluate the long-term impact of interventions on lead times and satisfaction levels. Multidisciplinary collaborations incorporating management and psychological perspectives could broaden understanding of factors affecting patient experience. Finally, integrating health information technology in satisfaction research may facilitate the design of more efficient and patient-centered service systems.

## REFERENCES

- Alrajhi, K. N., Aljerian, N. A., Alazaz, R. N., Araier, L. B., Alqahtani, L. S., & Almushawwah, S. O. (2020). Effect of waiting time estimates on patients satisfaction in the emergency department in a tertiary care center. *Saudi Medical Journal*, 41(8). <https://doi.org/10.15537/SMJ.2020.8.25190>

- Amankwah, O., Choong, W. W., & Mohammed, A. H. (2019). Modelling the influence of healthcare facilities management service quality on patients satisfaction. *Journal of Facilities Management*, 17(3). <https://doi.org/10.1108/JFM-08-2018-0053>
- Andaleeb, S. S. (2001). Service quality perceptions and patient satisfaction: A study of hospitals in a developing country. *Social Science and Medicine*, 52(9). [https://doi.org/10.1016/S0277-9536\(00\)00235-5](https://doi.org/10.1016/S0277-9536(00)00235-5)
- Anggraeni, D., & Kurniawan, P. H. (2019). Pengaruh Kualitas Pelayanan, Tarif dan Fasilitas Terhadap Kepuasan Pasien Rawat Jalan pada Rumah Sakit Umum Daerah Embung Fatimah Kota Batam. *Scientia Journal: Jurnal Ilmiah Mahasiswa*, 1(2).
- Angraini, N., Fahmy, R., Rahman, H., & Ma'ruf, M. (2023). MEASURING CUSTOMER SATISFACTION: A LITERATURE REVIEW. *Jurnal Apresiasi Ekonomi*, 11(2). <https://doi.org/10.31846/jae.v11i2.610>
- Esti, A., Puspitasari, Y., Rusmawati, A., Surya, S., & Husada, M. (2013). Pengaruh Waktu Tunggu dan Waktu Sentuh Pasien Terhadap Tingkat Kepuasan Pasien Poli Umum di Puskesmas Sukorame Kota Kediri. *STRADA Jurnal Kesehatan Ilmiah*, 2(1).
- Gremler, D. D., Bitner, M. J., Zeithaml, V., & Wilson, A. (2018). Services Marketing: Integrating Customer Focus Across the Firm. In A. Wilson (Ed.), *Managing Service Quality: An International Journal* (7th ed.). McGraw Hill-Education. <https://doi.org/10.1108/msq.2004.14.5.436.1>
- Ibrahim, M. M., & Candra, S. (2023). The Effect of Health Center Facilities on Patient Satisfaction in Ambulatory Installations. *Journal of Health Science and Policy (JHSP)*, 1(3), 127-136. <https://bnr.bg/post/101787017/bsp-za-balgaria-e-pod-nomer-1-v-buletinata-za-vota-gerb-s-nomer-2-pp-db-s-nomer-12>
- Kotler, P. & Keller, K. L. (2012). *Manajemen Pemasaran Jilid I Edisi ke 12*. Jakarta: Erlangga. 2012.
- Morales, J., Silva-Aravena, F., & Saez, P. (2024). Reducing Waiting Times to Improve Patient Satisfaction: A Hybrid Strategy for Decision Support Management. *Mathematics*, 12(23), 1-10. <https://doi.org/10.3390/math12233743>
- Muraina, A., Iornongu, E., & Adekanmi, A. (2024). Assessment of The Technological Innovation Effects On Service Delivery In Assessment of The Technological Innovation Effects On Service Delivery In Health Care. *International Journal of Engineering and Information Systems (IJEAIS)*, 8(October), 36-50.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 62(1), 12-40.
- RSUD Bandung Kiwari. (2022). *Pelayanan Rawat Jalan RSUD Bandung Kiwari*. RSUD Bandung Kiwari. <https://rsudbandungkiwari.or.id/rawat-jalan>
- Sugiyono, D. (2010). Metode penelitian kuantitatif kualitatif dan R&D. In *Penerbit Alfabeta*.
- Supartiningsih, S. (2017). Kualitas Pelayanan an Kepuasan Pasien Rumah Sakit: Kasus Pada Pasien Rawat Jalan. *Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit* 10.18196/jmmr.2016, 6(1). <https://doi.org/10.18196/jmmr.6122>
- Tjiptono, F., & Chandra, G. (2016). *Service, Quality & Satisfaction* (Andang (ed.); IV). Andi Offset.
- Ulrich, R. S., Zimring, C., Zhu, X., DuBose, J., Seo, H. B., Choi, Y. S., Quan, X., & Joseph, A. (2008). A review of the research literature on evidence-based healthcare design. *HERD*, 1(3), 1-10. <https://doi.org/10.1177/193758670800100306>
- Widiatama, Y. (2018). Simulasi Perbaikan Alur Pelayanan Pasien Rawat Jalan Dengan Pendekatan Lean Hospital Pada Rumah Sakit Umum (Rsu) Kabupaten Tangerang. *Jitmi*, 1(1).

- Wulan, P. (2020). Hubungan Kualitas Pelayanan Kesehatan Dengan Kepuasan Pasien Rawat Jalan Di Puskesmas Antang Kota Makassar. *Skripsi*.
- Zhang, H., Ma, W., Zhou, S., Zhu, J., Wang, L., & Gong, K. (2023). Effect of waiting time on patient satisfaction in outpatient: An empirical investigation. *Medicine (United States)*, 102(40). <https://doi.org/10.1097/MD.00000000000035184>
- Zhou, X., He, Q., Li, Q., Kuang, J., Han, Y., & Chen, J. (2022). Factors Associated with Outpatient Satisfaction in Provincial Tertiary Hospitals in Nanchang, China: A Structural Equation Modeling Approach. *International Journal of Environmental Research and Public Health*, 19(14). <https://doi.org/10.3390/ijerph19148226>