Assessing Patient Satisfaction in an Internal Medicine Polyclinic Using Cartesian Analysis: A Case Study at Luwuk Regional Hospital

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ABSTRACT

Good service quality is one of the important factors in trying to create consumer satisfaction. Indicators on the SERVQUAL instrument can be used to measure the level of satisfaction with the quality of health services. This study aims to analyse the satisfaction of internal medicine patients at the polyclinic at the Luwuk Regional General Hospital using a Cartesian diagram. This type of research is an observational analysis where the sample size is 125 internal medicine polyclinic patients, with sampling techniques, namely accidental *sampling*. The data obtained was processed using SPSS and analysed using a *Cartesian* diagram. The results of the study showed that the total performance value (xi) was 77.664, the total expectation value (yi) was 85.668, and the total value of the level of suitability (TKI) was 90.65, where the criteria of the assessment were the criteria of being very satisfied. The Cartesian analysis categorized the service attributes in the hospital's internal medicine polyclinic into four quadrants, identifying high-priority areas for improvement, namely problems with registration procedures, service schedules, and attention to patient complaints, while the attributes whose performance needed to be maintained were related to staff responsiveness. Hospital management needs to maintain good attribute values so that it can provide services that are fast, precise, open, simple, easy to implement, and non-discriminatory.

Key Messages:
- Despite an overall patient satisfaction rating of "highly satisfactory" (with a total suitability index, TKI=90.65), this study reveals a significant gap between high patient expectations and the hospital's actual performance in several crucial service areas.
- The primary priorities identified for immediate improvement are registration procedures, service schedule clarity, and attention to patient complaints. Conversely, staff responsiveness is a key strength whose high performance must be maintained to sustain service quality,

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GRAPHICAL ABSTRACT

Cartesian Analysis of Internal Medicine Patient Satisfaction at Polyclinic Luwuk Regional General Hospital

Patient satisfaction is an important indicator of success for hospitals. Satisfied patients tend to be more compliant with medical instructions, have better recovery rates, and are more likely to recommend the hospital to others. In the long term, patient satisfaction will enhance patient loyalty and the hospital's reputation, which can ultimately increase the number of patient visits.

Patient satisfaction in healthcare services at hospitals

- Reliability
- Responsive
- Assurance
- Emphaty
- Tangible

Recommendations:
- Improvement in service quality
- excellent service

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INTRODUCTION

Hospitals are very complex service institutions, professional intensive and capital-intensive. In order for hospitals to carry out their functions properly, hospitals must have adequate human resources, facilities and equipment infrastructure and be managed professionally (1). Hospitals as one of the health service subsystems provide two types of services for the community, namely administrative services and health services. Health services include medical services, medical support services, medical rehabilitation, and treatment services (2). Patient satisfaction is the *outcome* of health services. Good service quality is one of the important factors in creating consumer satisfaction (3). Patient satisfaction is a patient's assessment after experiencing outpatient services provided by health workers compared to patient expectations. It can be proven that patients or people who are satisfied with the health services provided tend to obey advice, be loyal or obedient to the agreed treatment plan (4).

Patient satisfaction with health services can be measured, one of which is the quality dimension of hospital staff care which greatly affects the satisfaction of health service users by understanding their needs and providing ease of getting information when they want to get help. Communication between hospital staff and patients has a great impact on patients, especially in terms of patient comfort and satisfaction because they are able to solve patient health problems. An indicator that can be used to measure the level of satisfaction with the quality of health services is *the SERVQUAL instrument* with its dimensions, namely tangible, responsiveness, emphaty, assurance, and reliability (5).

Sulisna's research (2023) showed that as many as 47 patients (47%) stated that they were on time and 53 patients (53%) stated that they were not on time in terms of providing services at the outpatient installation of the Aceh Tamiang Regency Hospital (6). Based on this, there are 27% of patients who feel satisfied and 35% of patients who feel dissatisfied. Another study by Agustina (2020) stated that there was a significant relationship between the quality of health services and outpatient satisfaction at Manguharjo Lung Hospital Madiun with a p value = 0.029 < α = 0.05.

The Banggai Regency Regional General Hospital is the only Government Hospital located in Luwuk Banggai City with a type B Hospital. Based on the results of the fourth quarter community satisfaction index survey conducted by the internal Hospital in 2023, it shows that 84.10% of patients give a good assessment of the services provided by the Hospital, however, there are still some complaints from patients regarding the lack of comfort and there is still discrimination in terms of service delivery by health workers. Other things that had complained about were the lack of several specialist doctors and the availability of parking

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spaces at the hospital. In the SERVQUAL Theory, the existence of specialist doctors will affect the dimensions of Assurance, Reliability, and Responsiveness. The availability of specialist doctors increases the likelihood of accurate diagnosis and treatment. Meanwhile, adequate, safe, and comfortable parking lots are closely related to the dimension of tangibles (Physical Evidence). A difficult, full, or unsafe parking experience can instantly create a negative impression before the patient enters the Hospital building.

The hospital's medical record data shows that the number of outpatient visits at the Banggai Regency Regional General Hospital in 2023 amounted to 32,362 patients, while the number of patient visits over the last four years at the internal medicine polyclinic has fluctuated, with an increase of 3,196 patients, 3,326 patients, and 3,799 patients. However, in 2023 there was a decrease in the number of visits, which was 3,541 patients. The average number of patient visits every month in 2023 at the internal medicine polyclinic is 295 patients. The form of services provided at the internal medicine polyclinic is supported by the presence of 3 internal medicine specialists (7). Based on the above conditions, it is necessary to conduct an in-depth analysis related to the factors that affect the quality of services at the Internal Medicine Polyclinic at the Luwuk Regional General Hospital so that it affects the decrease in the number of patient visits.

In analyzing the quality of health services, the Cartesian diagram is one of the tools that can provide a clear and comprehensive visual picture of the gap between patients' expectations (level of importance) and their perceived reality (level of performance/satisfaction). Cartesian analysis helps hospital management to know specifically which attributes need to be improved and which ones must be maintained, so that the hospital can formulate a strategy to improve service quality that is more targeted, efficient, and effective. Moreover, it can help in better allocation of resources.

METHODS

The type of research used was observational with a descriptive approach, namely to obtain an overview of patient satisfaction levels at the internal medicine polyclinic at Luwuk General Hospital using Cartesian analysis. The population in the study is the average patient of the internal medicine polyclinic in 2023, with an average monthly visit of 295 patients, while the sampling technique is accidental sampling, with a research time of 1 month, so that the number of samples obtained is 125 patients.

The research instrument uses a standardized questionnaire that has been used previously in the research of Nurhasanah (2022), who conducted research on the outpatient unit of the Pekkabata Health Center, Polewali Mandar Regency (8), where the questionnaire contains 5 questions on each research variable aimed at assessing performance. Data collection on patients is carried out after the patient has completed medical treatment, which begins with an explanation of the purpose of the study. The researcher gave respondents the opportunity to fill out the questionnaire that had been distributed and ask if there were any questions that were not understood.

Data processing uses the SPSS program with stages of editing, coding, data entry, and data cleaning. For data analysis, a Likert scale was used, which consisted of 5 criteria each in the performance and expectations sections. The performance section consists of 5 criteria, namely very good, good, quite good, not good, and not good, while the expectations section consists of 5 criteria, namely very satisfied, satisfied, quite satisfied, dissatisfied, and dissatisfied. The next analysis is to calculate the level of suitability of patient satisfaction by comparing the level of expectation and the level of performance obtained with the formula:

$$Tki = \frac{Xi}{Yi} \, x \, 100\%$$

Where:

Tki = Patient satisfaction compliance level
Xi = The value of the patient's level of performance
Yi = Value of the patient's expectation level

Next, the value $\bar{X}$ of , , , and which is the axis of the Cartesian Diagram will be calculated with the following formula: $\overline{\overline{Y}}\,\overline{\overline{X}}\overline{\overline{Y}}$

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$$\bar{X} = \frac{\Sigma\, Xi}{n} \quad \bar{Y} = \frac{\Sigma\, Yi}{n}$$

$$\bar{\bar{X}} = \frac{\Sigma \bar{X}}{K} \quad \bar{\bar{Y}} = \frac{\Sigma \bar{Y}}{K}$$

Where:

$\bar{X}$	= Average score of the patient's level of performance obtained
$\bar{Y}$	= Average score of patient expectation level
n	= Number of respondents
$\bar{\bar{X}}$	= Average score of the average level of performance obtained by the patient
$\bar{\bar{Y}}$	= Average score of the patient's average expectation level
K	= The number of questions (in this case K=25)

The data on patient satisfaction at the Luwuk General Hospital internal medicine polyclinic is presented in a frequency distribution table, while the cartesian analysis is presented in the form of IPA (Importance-Performance Analysis).

RESULTS

The Respondent is composed of a slight majority of female respondents (56%) compared to male respondents (44%). This distribution is common in healthcare utilization studies, often reflecting a higher tendency for females to seek medical consultation and engage in health-related surveys. It suggests the findings capture the perspective of the predominant gender group visiting the polyclinic. The respondents exhibit a diverse educational background. The largest group holds a senior high school education (40%), followed by those with elementary school and tertiary (university) education, both at 24%. The smallest group consists of respondents with a junior high school education (12%). This heterogeneity implies that the service quality was evaluated from various levels of understanding and expectation, strengthening the validity of the overall satisfaction assessment. The majority of patients fall into the 25-54 age group (64%), which represents the most productive adult population. The subsequent groups are older adults, aged 55-64 (15.2%) and ≥65 (12.8%), with the youngest adult group (15-24) being the smallest (8%). This age distribution is typical for an internal medicine polyclinic, which primarily treats adult and geriatric conditions. The dominance of the 25-54 age group indicates that the feedback largely comes from individuals who are often active workers and may have higher expectations regarding service efficiency and time management.

Table 1. Characteristics of Respondents

Respondent Characteristics	n	%
Gender		
Man	55	44
Woman	70	56
Education Level		
Elementary School	30	24
Yunior High School	15	12
Senior High school	50	40
University	30	24
Age Groups (Years)		
15-24	10	8
25-54	80	64
55-64	19	15,2
>= 65	16	12,8
Total	**125**	**100**

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Table 2. The Suitability Level of Internal Medicine Patient Satisfaction at the Luwuk Regional General Hospital Polyclinic

No.	Question	Performance (X)	Hope (Y)	Conformity Level (TKi)	Satisfaction Rate
Reliability Variable					
1	Fast and precise patient registration procedure	2,912	3,56	81,79	Very satisfied
2	Proper and fast examination, treatment and treatment services	3,184	3,416	93,20	Very satisfied
3	The service schedule of the Banggai Regency Hospital is carried out correctly (doctor's poly schedule)	2,896	3,552	81,53	Very satisfied
4	Uncomplicated procedure	3,104	3,16	98,22	Very satisfied
5	Always strive for error-free records	3,416	3,656	93,43	Very satisfied
Total Reliability		**15,512**	**17,344**	**89,43**	**Very satisfied**
Responsive Variables					
6	Ability of doctors and nurses to respond quickly to patient complaints	3,376	3,432	98,36	Very satisfied
7	Officers provide clear, easy-to-understand information	3,216	3,52	91,36	Very satisfied
8	Quick action when patients need it	3,224	3,488	92,43	Very satisfied
9	The officer always says exactly when and when the service will be provided	3,24	3,504	92,46	Very satisfied
10	Officers are willing to help if needed	3,256	3,528	92,29	Very satisfied
Total Responsiveness		**16,312**	**17,472**	**92,21**	**Very satisfied**
Assurance Variable					
11	Knowledge and Ability of doctors, nurses and other staff in work	3,176	3,632	87,44	Very satisfied
12	Skills of doctors, nurses and other officers in working	3,296	3,688	89,37	Very satisfied
13	Its courteous and friendly service	3,016	3,352	86,86	Very satisfied
14	Guarantee of service security and trust in service	3,152	3,464	90,99	Very satisfied
15	The ability of the officer to instill a sense of security in patients if they are treated in the hospital	3,144	3,408	92,25	Very satisfied
Total Assurances		**15,784**	**17,664**	**89,35**	**Very satisfied**
Emphaty Variable					
16	Paying special attention to the patient's family	2,976	3,144	94,65	Very satisfied
17	Attention to the complaints of patients and their families	2,68	3,096	86,56	Very satisfied
18	Service to all patients regardless of social status and others	3	3,216	93,28	Very satisfied
19	Communication between the officer and the patient went well and smoothly	2,808	3,184	88,19	Very satisfied
20	The staff understands the specific needs of their patients	2,88	3,28	87,80	Very satisfied
Total Empathy (Emphaty)		**14,344**	**15,92**	**90,10**	**Very satisfied**
Tangible Variable					
21	Cleanliness, neatness and comfort of the polyclinic service waiting room	3,28	3,424	95,79	Very satisfied
22	Exterior and interior arrangement of the room	3,128	3,376	92,65	Very satisfied

No.	Question	Performance (X)	Hope (Y)	Conformity Level (TKi)	Satisfaction Rate
23	Completeness, readiness and cleanliness of the tools used	3,16	3,328	94,95	Very satisfied
24	Neatness and cleanliness of the officer's appearance	2,944	3,656	92,92	Very satisfied
25	The layout of the room in the internal medicine polyclinic service is ergonomic and comfortable	3,2	3,504	91,32	Very satisfied
Total Tangible		**15,712**	**17,288**	**91**	**Very satisfied**
	Grand Total	**77,664**	**85,668**	**90,65**	**Very satisfied**
	Average	**3,106**	**3,426**	**91,855**	**Very satisfied**

The reliability dimension, which assesses the ability to perform the promised service dependably and accurately, achieved a high total conformity level of 89.43% (Table 2). The responsiveness dimension, measuring the willingness of staff to help patients and provide prompt service, demonstrated a very high conformity level of 92.21%, reflecting strong performance in attending to patient needs (Table 2). The assurance dimension, reflecting the knowledge, skill, and courtesy of the staff in inspiring trust and confidence, garnered a total conformity level of 89.35%, suggesting that patients generally feel secure and trust the staff's competence (Table 2). The empathy dimension, which evaluates the provision of caring and individualized attention, obtained a total conformity level of 90.10%, indicating that patients perceive the staff as attentive and understanding of their personal needs (Table 2). The tangible dimension, concerning the physical appearance of facilities, equipment, and personnel, achieved a high total conformity level of 91%, indicating strong patient satisfaction with the clinic's physical environment and presentation (Table 2).

Table 3. Respondent Satisfaction Level Banggai Regency Hospital Year 2024

No.	Satisfaction Compatibility Rate	n	n
1	Satisfied	11	8,8%
2	Very satisfied	114	91,2%
	Total	**125**	**100%**

From the table 3, it is known that 91.2% of patients felt satisfied with the services provided by the internal medicine polyclinic at Luwuk Regional Hospital. The Cartesian diagram analysis strategically categorizes service attributes to guide managerial priorities, revealing distinct areas for action (Figure 1). Quadrant I identifies the most critical areas requiring immediate improvement, as they are highly important to patients but demonstrate low performance; these include the registration procedure, service schedule adherence, and attention to patient complaints. In contrast, Quadrant II showcases the hospital's core strengths—such as the quality of clinical services, staff competence, and facility cleanliness—which are high in both importance and performance and must be maintained to sustain patient satisfaction. Quadrant III contains low-priority attributes like general communication and politeness, which are perceived as low in both importance and performance. Finally, Quadrant IV highlights attributes of "possible overkill," such as the simplicity of procedures and room arrangement, where high performance may exceed the level of importance assigned by patients, suggesting resources could potentially be reallocated.
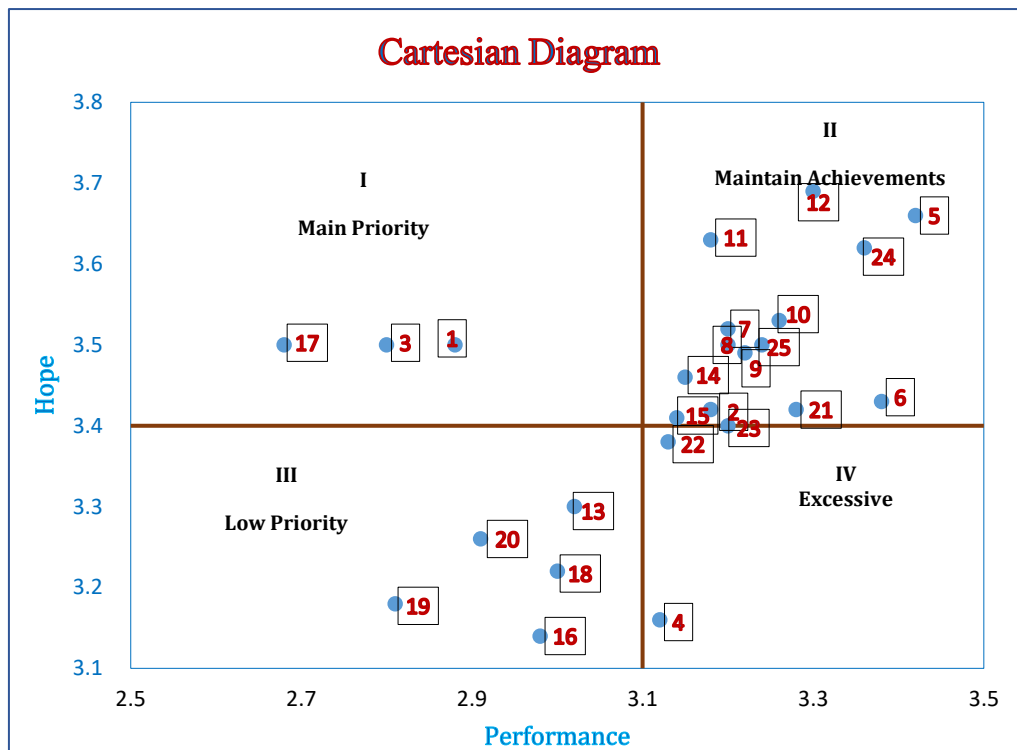
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Figure 1. Cartesian Diagram

Information:
Quadrant I: 1 (Registration procedure), 3 (Service schedule), 17 (Attention to patient complaints). Quadrant II: 2 (Examination, treatment and treatment services), 4 (Always strive for error-free records), 5 (Ability of doctors and nurses), 6 (The officer provides information), 7 (Quick action), 8 (The officer always says exactly when and when the service will be provided), 9 (Uncomplicated service procedures), 10 (Always strive for error-free records), 11 (Knowledge and abilities of doctors, nurses and other staff), 12 (Skills of doctors, nurses and other officers), 14 (Service security guarantee), 15 (Officers' ability to instill a sense of security), 21 (Cleanliness, neatness and comfort), 23 (Completeness, readiness and cleanliness of the tools used), 24 (Neatness and cleanliness of the officer's appearance), 25 (The layout of the room in the internal medicine polyclinic service is ergonomic and comfortable). Quadrant III: 13 (Polite and friendly service), 16 (Paying special attention), 18 (Service to all patients regardless of social status), 19 (Officer-to-patient communication), 20 (The staff understands the specific needs of their patients). Quadrant IV: 21 (Uncomplicated service procedures), 22 (Exterior and interior arrangement of the room).

DISCUSSION

In order to provide a good service to people who want to get health services and consultation in the health sector, all supporting elements in hospitals must strive to improve the quality of service. In fact, the more perfect the service provided to the patient, the higher the level of satisfaction for the patient (9). The cartesian diagram depicts the priority level of improvement based on the level of importance and performance. By knowing the location of the quadrants of these dimensions, the hospital can relate the importance of these attributes to the reality felt by the patient so that the Banggai Regency Hospital can make improvements to the attributes that are felt to have poor performance but are important for the patient.

With the description of the results of the research on the quality of service on the satisfaction of internal medicine polyclinic patients, the ability of hospitals to provide satisfaction to patients must always be monitored or improved, to overcome consumer conditions that are constantly changing dynamically. Services that are able to provide satisfaction are not necessarily in the future but still provide satisfaction. So hospitals must be able to improve their ability to provide satisfaction continuously in response to the dynamics of changes that occur.

In the study, it was found that the level of patient satisfaction with the reliability of Luwuk General Hospital officers in providing health services with a value of 89.43%. The element of patient assessment to be improved is the element of waiting time. This is shown by the value given by the patient, which is 81.53%. Delays from polyclinic officers, both doctors, nurses and registration officers in providing services, make the patient's waiting time increase from normal times. A study conducted on hospitals in China

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explained that improvements must be made in the aspects of non-medical care, especially waiting times and physical environments. As patient expectations increase and the healthcare market provides them with more choices, these non-medical aspects will become increasingly important in determining satisfaction and shaping patient choice (10).

The level of patient suitability to the response of officers in providing health services to internal medicine polyclinic patients was 92.21%. As many as 98.36% of respondents gave a score for the ability of doctors and nurses to respond quickly to solving patient complaints, while the lowest score was obtained for the services of officers who provided clear and easy-to-understand information, which was 91.36%. This is not in line with research by Payage (2017) where nurses/doctors at Dekai General Hospital, Yahukimo Regency have not been able to answer questions/complaints about administrative service problems clearly, causing dissatisfaction in patients (11). In terms of providing information, officers in the service department are expected to master simple but effective communication techniques so that they can create a sense of mutual understanding and mutual benefit between the two parties (12). A study shows that improving the quality of health information is related to better patient safety outcomes (13). Soumokil's research (2021) explained that there was a relationship between the responsiveness of health workers and patient satisfaction at Piru Hospital (p value 0.000 or p value < 0.05) (14). This is also related to the importance of providing informed consent to patients. The accuracy of information about the medical measures that the patient will receive will affect the patient's trust in the service provider. Such as the conditions at the Banten Provincial General Hospital and dr. Drajat Prawiranegara Hospital where the accuracy of information recipients and approvers of medical actions that are still inaccurate is 70.2% (15).

In the guarantee of services that will be provided by internal medicine polyclinic officers to patients who receive outpatient services, the suitability rate is 89.35%. The highest score was obtained in the element of service safety assurance and patient trust in the service while the lowest score was obtained in the element of polite and friendly service. The results of this study are in line with research by Yanti (2022) where there is a relationship between the friendliness of health workers and the satisfaction of outpatients at the internal medicine polyclinic at Iskandar Muda Kindergarten II Hospital, Banda Aceh City in 2022 with p value = 0.028 (16). As quoted from *halodoc.com* article where it is said that basically the cure of every disease is also related to psychological behavior. By combining treatment and health psychology, it can help overcome diseases so that it has an impact on the patient's healing process faster.

The level of conformity of patient satisfaction with the attention given by the officer to the patient without discriminating between the services provided was 90.10%, this result was not in line with the research by Suratri (2018) where respondents in outpatient installations in 7 hospitals in Indonesia felt dissatisfied because health workers still differentiated services for each patient (17). In addition, 86.56% of patients assessed that complaints from patients or their families related to medical or non-medical services were still not handled properly by health workers. The results of this study are in line with research conducted at Mokopido General Hospital, Toli-toli Regency where patients are not satisfied with the handling of patients' disease complaints and solutions related to the complaints provided (18).

The patient's assessment of physical evidence which includes facilities, facilities and infrastructure of the disease polyclinic room is an indicator that must be of concern to hospital management. Based on the results of the assessment of the level of conformity in this variable, which is 91%. The aspects of cleanliness, neatness and comfort of the waiting room for polyclinic services received the highest assessment from patients, which was 95.79%. Meanwhile, the aspect of room arrangement (interior) received a low rating of 91.32%. This can be interpreted that the arrangement in the internal medicine polyclinic room has an effect on the comfort and trust of patients in the services provided. A study at a General Hospital in the Klang Valley region of Malaysia showed results that spatial planning ($\alpha = 0.265$), lighting ($\alpha = 0.263$), furniture ($\alpha = 0.243$), and color ($\alpha = 0.138$) had a significant positive effect on patient satisfaction (19).

CONCLUSION

In determining indicators related to improving the quality of services in the disease polyclinic at Luwuk General Hospital, Cartesian analysis is very helpful in identifying priority service areas that must

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be maintained or improved. The results of the analysis indicate that there are three service attributes that must be a high priority for improvement, namely registration procedures, service schedules and attention to patient complaints, while attributes whose performance needs to be maintained are related to staff responsibility, including behaving politely and regardless of the patient's economic status and conducting good communication with patients. On the other hand, there are attributes that are not a priority but affect patient satisfaction, including security guarantees and the exterior and interior arrangement of the service room. Hospital management needs to maintain the value of existing attributes so that it can provide fast, accurate, open, simple and easy-to-implement and non-discriminatory services. In addition, it is necessary to provide training for health workers/nurses related to improving communication skills so that service issues related to conveying information to patients can be superior. In addition, it is necessary to provide training to health workers/nurses related to improving communication skills so that service problems related to conveying information to patients can be resolved.

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CONFLICTS OF INTEREST

The authors declare that they have no conflict of interest.

REFERENCES

1. Kemenkes RI. (2011). Peraturan Menteri Kesehatan Republik Indonesia Nomor 1171/Menkes/Per/VI/2011 Tentang Sistem Informasi Rumah Sakit.
2. Agustina, M. D. (2020). Gambaran Kepuasan Pasien Rawat Jalan Di Rumah Sakit Paru Manguharjo Madiun. (Skripsi) Stikes Bhakti Husada Mulia Madiun.
3. Fadila, R. A., & Sulastri, E. (2023). Hubungan Mutu Pelayanan Keperawatan Terhadap Kepuasan Pasien Lansia Poli Penyakit Dalam. Jurnal Kesehatan Dan Pembangunan, 13(26).
4. Uktutias, S. A. M. (2018). Analisis Tingkat Kepuasaan Pasien Rawat Jalan RSIA NUN Surabaya Analysis The Outpatient Satisfaction Level of RSIA NUN Surabaya. Jurnal Manajemen Kesehatan Yayasan RS.Dr.Soetomo, 04(01), 14–23.
5. Ramadhan, N. K. (2015). Perbedaan Kepuasan Pasien Peserta Bpjs Kesehatan Dan Pasien Umum Terhadap Pelayanan Di Rumah Sakit Umum Negara. (Thesis) Universitas Muhammadiyah Yogyakarta.
6. Sulisna, A., Fitria, D., Fauzi, M., & Tarigan, A. M. (2023). Hubungan Waktu Tunggu Pelayanan Spesialistik Terhadap Tingkat Kepuasan Pasien di Rawat Jalan RSUD Kabupaten Aceh Tamiang. Ijoh: Indonesian Journal Of Public Health, 01(01), 1–14. https://Jurnal.academiacenter.org/index.php/Ijoh
7. BRSD Luwuk. (2023). Rekam Medik Kunjungan Rawat Jalan Pasien Poliklinik Penyakit Dalam Tahun 2020, 2021, 2022, dan 2023. Kabupaten Banggai.
8. Nurhasanah. (2022). *Gambaran Tingkat Kepuasan Peserta Jaminan Kesehatan Nasional (JKN) pada Pelayanan Rawat Jalan di Puskesmas Pekkabata Kabupaten Polewali Mandar Tahun 2022. (Skripsi) Universitas Tompotika Luwuk*
9. Pohan, I. S. (2006). Jaminan Mutu Pelayanan Kesehatan, Cetakan I. Kedokteran, EGC, Jakarta.
10. Hu, L., Ding, H., Hu, G., Wang, Z., Liu, S., & Liu, Y. (2019). How Perceived Quality of Care Affects Outpatient Satisfaction in China: A Cross-Sectional Study of 136 Tertiary Hospitals. *Inquiry (United States)*, *56*. https://doi.org/10.1177/0046958019895397

11. Payage, Y., & Setyowati, K. (2017). Health Service Quality of Dekai General Hospital of Yahukimo District. *Research on Humanities and Social Sciences* , *7*(12). www.iiste.org

12. Sugiarto, E. (2002). Psikologi Pelayanan dalam Industri Jasa. Jakarta: Gramedia Pustaka Umum.

13. Syamsuriansyah, S., & Hizriansyah, H. (2025). Health Information Quality and Patient Safety Performance: A Study at Awet Muda Narmada Regional Hospital. *Journal of Health and Nutrition Research*, *4*(1), 102–115. https://doi.org/10.56303/jhnresearch.v4i1.352

14. Soumokil, Y., Syafar, M., & Yusuf, A. (2021). Analisis Kepuasan Pasien Di Rumah Sakit Umum Daerah Piru. *Jurnal Ilmiah Kesehatan Sandi Husada*, *10*(2), 543–551. https://doi.org/10.35816/jiskh.v10i2.645

15. Adhayati, B., Putrihamidah, D. A., Louisa, M., & Sodikin, A. (2024). The Accuracy of Information Recipients and Consent Givers for Informed Consent in Hospitals. *Journal of Health and Nutrition Research*, *3*(3), 207–210. https://doi.org/10.56303/jhnresearch.v3i3.296

16. Yanti, D., & Akbar, F. (2022). Hubungan Kualitas Pelayanan Dengan Kepuasan Pasien Rawat Jalan Di Poli Penyakit Dalam Dirumah Sakit TK II Iskandar Muda Kota Banda Aceh. In *Journal of Health and Medical Science* (Vol. 1, Issue 1). https://pusdikra-publishing.com/index.php/jkes/home

17. Suratri, M., & Suryati, T. (2018). Persepsi Pasien Rawat Jalan Terhadap Kualitas Pelayanan Di Rumah Sakit. *Buletin Penelitian Kesehatan*, *46*(4). https://doi.org/10.22435/bpk.v46i4.33

18. Suwendro, N. I., Wandira, B. A., & Maharani, P. (2022). Relationship Between Characteristics of Class 3 Inspired Patients With Service Satisfaction at Mokopido General Hospital, Tolitoli Regency. *Journal of Health and Nutrition Research*, *1*(2), 95–102. https://doi.org/10.56303/jhnresearch.v1i2.27

19. Aljunid, S. S., Nabilah, N., Shukri, H. M., Zafrullah, M., Taib, M., & Samah, Z. A. (2020). Determinants Of Patient Satisfaction On Interior Design Quality Of Public Hospitals In Malaysia. In *Malaysian Journal of Public Health Medicine* (Vol. 2020, Issue 2).