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**INTRODUCTION**

Hospitals are healthcare institutions responsible for providing comprehensive services, including inpatient, outpatient, and emergency care (1). Outpatient facilities or polyclinics are the first gateway for patients to receive care, thus playing a crucial role in shaping their initial perceptions of the quality

**THE RELATIONSHIP BETWEEN WAITING TIME FOR SERVICES AND PATIENT SATISFACTION AT THE OUTPATIENT POLYCLINIC OF RSI NU DEMAK**

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**ABSTRACT**

**Introduction:** Waiting time is a fundamental indicator for assessing hospital service quality, particularly in outpatient settings. Excessive delays can lead to decreased patient satisfaction, and the Indonesian Ministry of Health recommends a maximum outpatient waiting time of 60 min. This study aimed to analyze the relationship between waiting time and patient satisfaction at the Outpatient Clinic of RSI NU Demak. **Methods:** A quantitative cross-sectional design was used, involving 106 respondents selected through quota sampling. Data were collected using a waiting time checklist and a SERVQUAL-based satisfaction questionnaire. Statistical analysis was performed using univariate and bivariate tests with Spearman's rho. **Results:** The findings showed that Most respondents experienced waiting times within the national standard; however, the majority still reported dissatisfaction with the services. Bivariate analysis revealed no significant relationship between waiting time and patient satisfaction. **Conclusion:** Waiting time alone does not determine patient satisfaction with outpatient service. Satisfaction is more likely to be influenced by other aspects, such as healthcare personnel's attitude, communication quality, comfort of the physical environment, and clarity of service procedures. Therefore, strengthening these non-technical dimensions is essential to enhance patient perception and overall service quality.

**Keyword:** Hospital, Outpatient Clinic, Patient Satisfaction, Service Quality, Waiting Time

of hospital services (2). However, the increasing number of patient visits over the years has led to long queues and increased waiting times at polyclinics (3). The Indonesian Ministry of Health has set a maximum waiting time of 60 minutes from registration to the patient's arrival in the doctor's examination room, with a minimum

target of 80% (4). In the context of healthcare quality, patient satisfaction is a crucial indicator of success and is influenced by the efficiency and effectiveness of service flow, including waiting times (5). Therefore, a more in-depth analysis of the relationship between waiting time and patient satisfaction with polyclinic services is needed to identify potential improvements and strengthen service quality.

Globally, the average patient wait time in clinic waiting rooms ranges from 20 to 40 minutes and can even exceed 70 to 150 minutes in walk-in clinics and small-scale studies (6). These findings suggest that wait time is a critical indicator of healthcare quality, making it a strategic aspect of improving patient satisfaction. A preliminary survey at RSI NU Demak showed that the average outpatient waiting time reached 57 minutes and 24 seconds, while in the obstetrics-gynecology and ENT clinics, waiting times exceeded 1–3 hours. Such discrepancies may decrease patient satisfaction and harm the hospital's reputation. Patient and family satisfaction are key quality indicators in hospitals (4). To measure service quality, the dimensions proposed by Nursalam (2020) can be applied: tangibles, empathy, reliability, responsiveness, and assurance.

The waiting time for services in outpatient clinics has important implications for the quality of healthcare delivery (8). Long waiting times have been shown to lower patient satisfaction and negatively impact safety, as prolonged waiting can trigger stress and anxiety and diminish trust in the healthcare system (9). These impacts are felt not only by patients but also by healthcare workers, particularly in terms of morale and performance. Extended service times and increased queues trigger work pressure, patient complaints, and demands for expedited examinations while maintaining service quality. Long waiting times also create operational challenges for service management; service flows become inefficient, resource utilization is suboptimal, and the workload of healthcare providers increases. Managing waiting times in

outpatient clinics is a fundamental aspect of improving service quality, sustainability of healthcare worker performance, and operational effectiveness of hospital organizations. Patient satisfaction ultimately depends on meeting the service quality dimensions, including reliability, responsiveness, assurance, empathy, and tangibility (10).

The main problem in this study was the failure to achieve a standard service waiting time of less than 60 minutes in several polyclinics at the RSI NU Demak. This condition causes long queues, hinders the smooth flow of services, and decreases patient satisfaction. Optimizing the queue system, improving the discipline and performance of staff, improving coordination between units, and utilizing information technology are important strategies to accelerate services, increase efficiency, and create a more positive service experience for patients. This study aimed to analyze the relationship between service waiting time and patient satisfaction at the Outpatient Installation of RSI NU Demak.

## METHOD

This research utilized a quantitative descriptive–analytic design with a cross-sectional approach to investigate the relationship between waiting time and patient satisfaction in the outpatient polyclinic of the RSI NU Demak, Indonesia. The study population included all patients who received outpatient services during the study period. The sample size was determined using the Krejcie–Morgan formula, yielding 96 participants, and an additional 10% was added to prevent sampling loss, resulting in 106 respondents in the final analysis. Quota sampling was applied, comprising 27 patients from the ENT clinic, 27 from the obstetrics and gynecology clinic, and 52 from the surgery, internal medicine, and neurology clinics.

Waiting time was identified as an independent variable, and patient satisfaction was the dependent variable. The patient

satisfaction instrument, adapted from Fatrida and Saputra (2019), demonstrated a validity coefficient of  $r = 0.61$  and a Cronbach's alpha of 0.91. The waiting time instrument, adapted from Hasan (2014), demonstrated a validity coefficient of  $r = 0.854$  and a Cronbach's alpha of 0.842. Data were collected by distributing structured questionnaires immediately after the patients completed their outpatient services.

The data were analyzed in two phases: univariate analysis was used to describe respondent demographics, waiting time distribution, and satisfaction levels. Bivariate Spearman's rho test was used to evaluate the correlation between waiting time and patient

satisfaction. Ethical procedures were strictly followed, including voluntary participation, confidentiality assurance, and fair treatment of participants. Informed consent was obtained from all respondents, and ethical approval was obtained from the Ethics Committee of the Faculty of Health Sciences, UNIPDU Jombang (No. 056-KEP-UNIPDU/06/2025).

## RESULT

The characteristics of the respondents in this study included gender, age, educational background, occupation, and the outpatient clinic where they received treatment. The detailed characteristics of the study participants are shown in Table 1.

Table 1. Respondent Characteristics

Characteristic	Frequency (f)	Percentage (%)
<b>Gender</b>		
Male	30	28%
Female	76	72%
<b>Age</b>		
12–16 years (Early Adolescence)	1	1%
17–25 years (Late Adolescence)	9	8%
26–35 years (Early Adulthood)	43	41%
36–45 years (Late Adulthood)	31	29%
46–55 years (Early Elderly)	10	9%
56–65 years (Late Elderly)	11	10%
> 65 years (Senior)	1	1%
<b>Education Level</b>		
Elementary School/Equivalent	17	16%
Junior High School/Equivalent	6	6%
Senior High School/Equivalent	48	45%
Diploma (D3)	16	15%
Bachelor's Degree (S1)	18	17%
Master's Degree (S2)	1	1%
<b>Occupation</b>		
Private Employee	31	29%

Characteristic	Frequency (f)	Percentage (%)
Entrepreneur	26	25%
Housewife	23	22%
Farmer	4	4%
Retired (Police/Military)	3	3%
Student	3	3%
Nurse	7	7%
Civilian Serving	3	3%
Doctor	5	5%
Teacher	1	1%
<b>Polyclinic</b>		
Obstetrics-Gynecology	27	25%
Surgery	6	6%
Internal Medicine	22	21%
Neurology	24	23%
Ear, Nose, and Throat (ENT)	27	25%

As shown in Table 1, most respondents in this study were female (72%). In terms of age, most respondents were within the productive age group, particularly 26–35 years (41%). The highest level of education was senior high school or equivalent (45%), and the most common occupations were private employees (29%), followed by entrepreneurs

(25%), and housewives (22%). Respondents came from various outpatient clinics, with the largest number from the obstetrics-gynecology and ENT clinics (25% each), followed by the neurology (23%), internal medicine (21%), and surgery (6%) clinics. Quota sampling was used, considering the waiting times at each clinic.

Table 2. Patient Waiting Time

Patient Waiting Time	Frequency (f)	Percentage (%)
< 60 minutes	97	92%
> 60 minutes	9	8%
<b>Total</b>	106	100%

Source of Data: Primary Data, 2025

As shown in Table 2, most patients (92%) experienced a waiting time of less than 60 min, whereas the remaining 8% waited > 60 min. This indicates that most services were

delivered quickly and efficiently, although a small proportion of patients experienced a delay.

Table 3. Patient Satisfaction Time

Patient Satisfaction	Frequency (f)	Percentage (%)
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Satisfied	43	40,6
Not Satisfied	63	59,4
<b>Total</b>	<b>106</b>	<b>100</b>

Source of Data: Primary Data, 2025

Based on Table 3, of the 106 respondents, 43 (40.6%) were satisfied and 63 (59.4%) were not satisfied with their services. Satisfaction was measured using a score ranging from 20 to 80, with a mean value of 63.29 as the cut-off for categorization. Respondents with a score  $\geq 63.29$  were categorized as satisfied,

while those with a score  $< 63.29$  were categorized as not satisfied. This categorization follows Nursalam (2020), who stated that in quantitative questionnaire-based research, respondent satisfaction can be determined based on the mean scores.

Table 4. Relationship between Waiting Time and Patient Satisfaction

Waiting Time	Satisfied (n/%)	Not Satisfied (n/%)	Total (n/%)	Correlation Coefficient	P-Value
$\leq 60$ minutes	39 (40.2%)	58 (59.8%)	97 (91.5%)	0.024	0.807
$> 60$ minutes	4 (44.4%)	5 (55.6%)	9 (8.5%)		
<b>Total</b>	43 (40.6%)	63 (59.4%)	106 (100%)		

Source of Data: Primary Data, 2025

As shown in Table 4, Spearman's rho test results showed no significant relationship between waiting time and patient satisfaction ( $r_s = 0.024$ ;  $p = 0.807$ ). Although the correlation was positive, its strength was weak and not statistically significant.

## DISCUSSION

### Identification of Patient Waiting Time at the Outpatient Polyclinic of RSI NU Demak

The findings of this study revealed that, of the 106 patients, 92% experienced a waiting time of less than 60 minutes, indicating compliance with the hospital's minimum service standards. The maximum outpatient waiting duration is regulated by the Ministry of Health Regulation No. 30 of 2022, which sets the limit at 60 min and requires at least 80% of patients to meet this threshold. These results align with the service quality standards established by BPJS Kesehatan KCU Semarang, which adopts similar performance indicators. Despite the majority of patients meeting the standard, several challenges can cause waiting times to exceed the target.

Clinics with high patient volumes, such as Obstetrics-Gynecology and ENT, still reported waiting times exceeding 60 minutes, suggesting suboptimal queue management and human resource distribution. The

presence of prolonged waiting times indicates that the service delivery system has not yet reached its peak operational efficiency. Compared to other hospitals, such as RSUD Dr. Achmad Darwis and RS Prima Husada, RSI NU Demak demonstrated relatively good performance but still lacked consistency across the clinics. These variations highlight the importance of clinic-specific workflow management rather than the application of uniform strategies across all units.

Previous studies have demonstrated a strong correlation between long waiting times and low patient satisfaction (13,14). However, the findings of this study show that waiting duration alone is not the sole determinant of satisfaction. This is consistent with the results of Fauzana (2025), who highlighted that satisfaction is greatly influenced by tangibility, reliability, empathy and responsiveness. Thus, waiting time should be analyzed as part of a broader patient experience framework rather than as an isolated variable (16).

Based on the evidence and theoretical framework, waiting time management at the RSI NU Demak requires a comprehensive rather than a partial improvement approach. Optimization should not only focus on reducing the duration but also on strengthening the supporting service systems, such as patient flow regulation, digital queue technology, and adaptive doctor scheduling. Equitable staff redistribution across high-load

clinics, combined with the active role of administrative personnel, can help stabilize service duration during peak hours. Therefore, a strategic transformation of the outpatient service ecosystem is necessary to ensure that patient waiting times remain within the standards while maintaining high levels of patient satisfaction.

### Identification of Patient Satisfaction Levels

The results of this study show that among patients who waited more than 60 min, the majority (55.6%) reported dissatisfaction, although 44.4% were satisfied. In the group of patients with waiting times  $\leq 60$  min, most (59.8%) also reported dissatisfaction, indicating that a shorter waiting time does not automatically ensure increased patient satisfaction. These findings highlight that waiting time alone is not a dominant factor in determining patient satisfaction. Instead, dissatisfaction appears to be more influenced by elements such as staff communication, service quality, comfort, and alignment with patient expectations.

Further analysis shows that patient satisfaction at the RSI NU Demak Polyclinic is shaped by the five SERVQUAL dimensions, ranked from highest to lowest. Tangibles achieved the highest score at 82.2%, indicating that adequate physical facilities, a clean environment, and professional staff appearance play crucial roles in determining patient satisfaction. Empathy scored 80.4%, reflecting the importance of friendliness, emotional support, and individual attention from healthcare workers. Reliability (78.6%), assurance (77.3%), and responsiveness (75.1%) followed, illustrating that although patients trust the staff's knowledge and accuracy, improvements are required in the speed and readiness of service delivery.

These results indicate that environmental quality, personal attention, service accuracy, and staff responsiveness contribute more to patient satisfaction than waiting time. Variations in satisfaction levels across clinics also support this conclusion, where Surgery and Internal Medicine clinics showed higher satisfaction scores, while General and Neurology clinics had lower satisfaction due to high patient loads and limited doctor

availability. This contrasts with the findings of Nofriadi et al. (2019) and Wijayanti et al. (2023), who emphasized a consistent negative correlation between long waiting times and customer satisfaction. Thus, in the context of RSI NU Demak, the quality of interpersonal communication, staff performance, and the overall service experience appear to play a more significant role in shaping patient satisfaction than the waiting duration. Among patients who waited for  $> 60$  min, the majority (55.6%) reported dissatisfaction, although 44.4% were satisfied. Conversely, in the group of patients with waiting times  $\leq 60$  min, most (59.8%) reported dissatisfaction. This indicates that patient satisfaction is not solely determined by waiting time but is more influenced by factors such as staff communication, service quality, comfort, and alignment with patient expectations.

Analysis shows that patient satisfaction at the RSI NU Demak Polyclinic is influenced by the five SERVQUAL dimensions, ranked from highest to lowest scores as follows: tangibles scored the highest at 82.2%, indicating that adequate physical facilities, a clean environment, and staff appearance strongly determine satisfaction; empathy scored 80.4%, reflecting the importance of individual attention, friendliness, and care from health workers; reliability ranked third with 78.6%, showing patient trust in staff ability to provide accurate and timely services; assurance scored 77.3%, relating to staff knowledge, politeness, and the sense of security provided; and responsiveness scored 75.1%, indicating that staff speed and readiness to respond to patient needs require improvement. These results suggest that while all dimensions contribute to patient satisfaction, responsiveness should be prioritized for enhancement.

Overall, environmental quality, personal attention from health workers, service accuracy, and staff responsiveness had a greater impact on patient satisfaction than waiting time. Variations in satisfaction levels were also influenced by the service characteristics of each clinic: Surgery and Internal Medicine showed higher satisfaction, whereas General and Neurology clinics showed lower satisfaction due to long queues

and limited doctor availability. These findings contrast with those of previous studies (Nofriadi et al., 2019; Wijayanti et al., 2023), which reported a negative correlation between long waiting times and patient satisfaction. Thus, in the context of RSI NU Demak, the quality of interaction, communication, and overall service is more influential on patient satisfaction than the waiting time.

### **Relationship between Waiting Time and Satisfaction**

The Spearman test showed a correlation coefficient of  $r_s = 0.024$  and  $p = 0.807$ , indicating no statistically significant relationship between waiting time and satisfaction. This finding implies that waiting duration is not a primary determinant of satisfaction at the RSI NU Demak, even though waiting time is traditionally regarded as one of the most sensitive indicators of service performance. The absence of significance suggests that patients may tolerate waiting as long as the quality of interaction and service delivery compensates for the delay. Therefore, satisfaction in this context appears to be shaped less by time measurement and more by the perceived value of the service experience than by time measurement.

Patient satisfaction is defined as the degree to which service performance meets or exceeds the expectations of customers. According to Alfiannor, Syamsuddinnor, and Dewi (2025), dissatisfaction arises when performance falls below expectations, satisfaction occurs when performance meets expectations, and delight or high satisfaction occurs when performance exceeds expectations. The findings of this study show that interpersonal quality, clarity of communication, comfort, and responsive service play a more dominant role in shaping satisfaction than the waiting duration. This aligns with Wild (2024), who demonstrated that waiting time is not the major determinant of patient satisfaction. Wildan et al. further emphasized that satisfaction is more strongly influenced by staff competence, effective workflow, the application of information technology, and friendly professional service, including digital queue systems and online registration, which enhance perceived

convenience. Similarly, Kim (2022) identified interpersonal elements—such as staff friendliness, sincerity, clear information, and physical comfort—as core contributors to patients' feelings of being valued.

Waiting time is a key indicator of service quality in outpatient clinics and is the factor most frequently assessed by patients when expressing their satisfaction with healthcare services (19). Long waiting times can cause discomfort, anxiety, physical fatigue, and even negative perceptions that the healthcare facility is unprofessional or unable to manage the service flow effectively (20). This condition results in decreased patient trust, decreased loyalty in using services, and increased likelihood of patients switching to other healthcare facilities perceived as more efficient (21). Conversely, standardized waiting times reflect effective service management, help maintain patient comfort, and increase positive perceptions of the professionalism of healthcare workers and responsiveness of the service system (22,23). Furthermore, optimal waiting times have been shown to increase patient motivation for repeat visits, strengthen patient-healthcare provider relationships, and impact overall service quality (24). Various international and national studies have shown that measurable and efficient waiting times are positively correlated with patient satisfaction levels because patients feel valued, cared for, and prioritized (25). Taken together, these findings indicate that improving service quality requires more than just reducing waiting times; it demands strengthening the overall patient experience. Enhancements should focus on effective communication, empathy-driven staff attitudes, comfortable facilities, and patient-oriented service flow to build trust and emotional security during the care process. Therefore, a holistic and patient experience approach should be a strategic priority for RSI NU Demak to sustainably increase satisfaction levels. By shifting from a time-centered quality paradigm to a value-centered paradigm, the hospital can not only maintain performance indicators but also create a meaningful and positive patient journey.

## CONCLUSION

This study revealed that patient satisfaction at the RSI NU Demak outpatient polyclinic was not determined by waiting time, as the majority of patients experienced acceptable waiting durations yet still reported dissatisfaction. This indicates that satisfaction is shaped more by the quality of interpersonal communication, clarity of service procedures, responsiveness of staff, and comfort of facilities rather than by operational speed alone. These findings emphasize that improving patient satisfaction requires a shift from a purely efficiency-driven model to a holistic, patient-centered approach that prioritizes empathy, transparency, emotional support, and a conducive care environment. To enhance the service experience, healthcare organizations are encouraged to strengthen therapeutic communication, establish supportive service systems, and implement digital queue management to reduce uncertainty and increase perceived control during care. Future studies should investigate broader determinants of satisfaction, such as service quality, professional competence of healthcare workers, and psychological comfort, using larger and more diverse populations and advanced methodological approaches to generate evidence-based strategies for optimizing outpatient service quality and patient-centered care.

## REFERENCES

1. Fryer Akay, Friedberg MW, Thompson RW, Singer SJ. Healthcare Patient perceptions of integrated care and their relationship to utilization of emergency , inpatient and outpatient services. *Healthcare*. 2017; 5(December 2016):183–93.
2. Noviyani A. Exploring patients' perspectives on healthcare service quality in outpatient settings at a public hospital in Palembang , Indonesia : A qualitative study. *Scott, J.*, 2024; 10(6):703–11.
3. Abedi G, Rostami F, Ziaee M, Siamian H, Nadi A. Patient's Perception and Expectations of the Quality of Outpatient Services of Imam Khomeini Hospital in Sari City. *Mater Sociomed*. 2015; 27(May):272–5.
4. Ministry of Health of the Republic of Indonesia. Regulation of the Minister of Health of the Republic of Indonesia Number 30 of 2022. 2022. 1–93 pp.
5. Stevany R, Patricia P, Efkelin R, Ramba H La. Overview of the Quality of Service for Participants Using the Health Social Security Administering Body and Non-Health Social Security User Body at Hospital X. *Int J Heal Sci*. 2025; 5(3):162–70.
6. Mcintyre D, Chow CK. Waiting Time as an Indicator for Health Services Under Strain : A Narrative Review. *J Heal Care*. 2020; 57:1–15.
7. Nursalam. *Nursing Management: Application in Professional Nursing Practice*. 6th ed. Lestari PP, editor. Jakarta: Salemba Medika; 2020.
8. Almomani I, Alsarheed A. Enhancing outpatient clinics management software by reducing patients' waiting time. *J Infect Public Health*. 2016; 9:734–43.
9. Joseph J. Prediction of Consultation Wait Time in Outpatient Clinic: An Approach using Neural Network with Optimized Feature Selection. 2024; 00(2023).
10. Musrini A, Ibnu F, Hidayati RN, Zamroni AH. Correlation Analysis of SECI-Based Discharge Planning Implementation with Patient Satisfaction. *Indo-J Glob Heal Res*. 2024; 6(4):237–44.
11. Fatrida D, Saputra A. The Relationship between Waiting Time and Patient Satisfaction Level in Getting Health Services. *J 'Aisyiyah Med*. 2019; 4(1):11–21.
12. Hasan. *The Relationship between Waiting Time and Patient Satisfaction at the Eye Polyclinic in Outpatient Installations at Tarakan Hospital, East Kalimantan Province in 2023*. Hasanuddin University. 2014;
13. Nofriadi N, Delima M, Sara Y, Kunci K. The Relationship Between Service Waiting Time and Satisfaction of Patients of Internal Medicine Poly

- Painan Hospital. *Pros of Pioneer Health*. 2019; 2(1):67–72.
14. Wijayanti FR, Lidiana EH, Widiastutsi A. The Relationship between Patient Waiting Time and Patient Satisfaction Level at Mitra Sehat Karanganyar Clinic. *Aisyiyah Surakarta J Nurs*. 2023; 4:40–5.
  15. auzana A. Evaluating the Influence of Service Quality Dimensions on Patient Satisfaction in Healthcare: A Case Study of Syarif Hidayatullah Hospital. Bandung Technology Institute. 2025;29123222.
  16. Wildan M. The Effect of Waiting Time on Patient Satisfaction in the Outpatient Unit (Internal Medicine Poly) at Idaman Banjarbaru Hospital in 2024. *Univ Borneo Lestari*. 2024;
  17. Alfiannor, Syamsuddinnor, Dewi T. The Influence of Patients Trust and Service Digitalization on General Patient Satisfaction with Service Quality as an Intervening Variable. *Int Conf*. 2025;
  18. Kim S. Characteristics and 10 key components of interpersonal caring : a narrative review. *J Educ Health Promot*. 2022; 1–10.
  19. Zhang H, Ma W, Zhou S, Zhu J, Wang L, Gong K. Effect of waiting time on patient satisfaction in outpatient. *Medicine (Baltimore)*. 2023; 40 (August).
  20. Lontaan PA, Langi FG, Kekenusa JS. Analysis Of Factors Related To Waiting Time For Services In The Outpatient Department Of Manado Regional Hospital. *Int J Heal Pharmaxeutral*. 2024; 406–11.
  21. Lekay PR, Ongkowijoyo G, Sarwoko E. Analysis of service waiting time and its impact on patient satisfaction at siloam hospitals Makassar. *J Ilm Health Sandi Husada*. 2025; 14(2):314–22.
  22. Oliviany W, Kadarisman S, Utoyo W. Analysis of Service Quality Factors on Patient Satisfaction in the Pediatric Department RSI At-Tin Husada Purbalingga. *At-Tijaroh J Islamic Management and Business Sciences*. 2024; 10(2):199–217.
  23. Ferreira DC, Pedro MI, Caldas P, Varela M. Patient Satisfaction with Healthcare Services and the Techniques Used for its Assessment: A Systematic Literature Review and a Bibliometric Analysis. *Healthcare*. 2023;
  24. Xie Z, Or C. Associations Between Waiting Times , Service Times , and Patient Satisfaction in an Endocrinology Outpatient Department : A Time Study and Questionnaire Survey. *J Heal Care*. 2017; 54:1–10.
  25. Tollera G, Tadesse M, Aderajew R, Girmay M. Patient satisfaction with healthcare services and associated factors at public health centers in Addis Ababa , Ethiopia. *Discov Soc Sci Heal [Internet]*. 2025; Available from: <https://doi.org/10.1007/s44155-025-00185-6>