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The Relationship Between Waiting Time and Patient Satisfaction at the Nikel Polyclinic of X Hospital, East Jakarta, 2025

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This study investigates the relationship between waiting time for health services and patient satisfaction in the outpatient department of a hospital in East Jakarta. Patient satisfaction is considered an essential indicator of service quality and overall performance in health care institutions. Excessive waiting time often becomes one of the main complaints from patients and can negatively influence their perception of the quality of care received. Using a cross-sectional design with a quantitative approach, the research examines whether prolonged waiting time is associated with decreased satisfaction among patients receiving outpatient services. Data were collected through structured questionnaires and analyzed to identify the strength and direction of the relationship. The findings indicate that waiting time plays a significant role in shaping patient satisfaction, suggesting that efforts to minimize delays are crucial for improving health care delivery, enhancing patient experience, and strengthening institutional credibility.

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INTRODUCTION

According to the Ministry of Health Regulation No. 66/Menkes/II/1987, outpatient care is defined as medical services provided to patients for observation, diagnosis, treatment, rehabilitation, and other health services without requiring hospitalization. Patients who seek services in polyclinics generally expect care that is fast and efficient, with waiting times not exceeding one hour, as well as services that are friendly, communicative, integrated with health information systems, and comfortable both physically and psychologically in terms of waiting rooms, privacy, and staff courtesy.

Quality health services are a fundamental right of every individual and serve as an important indicator of the performance of the health system. One of the most critical aspects of health care delivery is patient waiting time, particularly in outpatient units. Prolonged waiting time is frequently reported as a primary complaint and can significantly influence patients' perceptions of service quality. Waiting time shapes the initial impression of patients

toward health facilities; timeliness reflects not only operational efficiency but also directly affects patient satisfaction.

Outpatient services are the entry point for patient interaction with the health system. Within this context, waiting time becomes a key indicator influencing perceptions of service quality and patient satisfaction. Long delays are a recurring issue, particularly in internal medicine and general polyclinics where the daily volume of visits is relatively high. Patient satisfaction reflects the overall experience during the service process, rather than clinical outcomes alone. Factors such as timeliness, staff friendliness, clarity of information, and the comfort of waiting areas shape patients' perceptions of service quality.

Supporting research has highlighted this relationship. A study by Dhea Maylia Wulansari at PKU Muhammadiyah Gombong Hospital found that more than half of patients expressed dissatisfaction with internal medicine outpatient services when waiting times exceeded one hour. Chi-square analysis confirmed a significant association between waiting time and satisfaction. Similarly, research at Muhammadiyah Ahmad Dahlan Hospital in Kediri revealed that a majority of patients waited longer than one hour, yet only half reported satisfaction. In Malang District General Hospital, patient complaints were linked to staff who were perceived as unresponsive and uncommunicative, while at Ludira Husada Tama Hospital almost one-fifth of patients cited long waiting times as their main concern. In Elim Rantepao Hospital, inadequate waiting facilities and pharmacy delays were also reported as sources of dissatisfaction.

Although waiting time is a dominant factor in shaping patient complaints, dissatisfaction also stems from the complexity of service procedures, quality of communication, and administrative readiness. Service quality in health care, as emphasized by Lestari et al. (2020), begins with patient needs and ends with satisfaction. Patients feel satisfied when the service performance matches or exceeds their expectations, and conversely, dissatisfaction emerges when service fails to meet them (Triyoso et al., 2021). Patient needs underpin their satisfaction, encompassing timeliness, clear and respectful communication, a sense of safety and comfort, empathy, and overall service quality.

Satisfaction is essentially the result of comparing perceived performance with expectations, and it may also be influenced by family members' evaluations of the services received (Valentina, 2020). Based on health service theory and service quality standards from the Ministry of Health, as well as the SERVQUAL framework by Parasuraman, patient satisfaction can be measured through dimensions such as tangibles, reliability, responsiveness, assurance, and empathy, with waiting time added as a critical indicator. Shorter waiting times are consistently associated with higher levels of satisfaction.

Prolonged waiting times are known to generate discomfort, increase stress, and lower perceptions of service reliability and responsiveness, which ultimately decreases overall satisfaction. Studies confirm that waiting time remains one of the dominant factors influencing patient satisfaction, particularly in outpatient care where expectations for efficient services are high. If these issues are not addressed, the negative experiences of dissatisfied patients can harm the hospital's reputation and potentially reduce future patient utilization (Pernama & Yulia, 2022).

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Outpatient services, defined as medical care delivered within less than twenty-four hours without admission (Lestari, 2019), play a vital role as the hospital's front gate and first point of patient contact (Samura et al., 2022). The process generally includes registration, initial examination, consultation with physicians, diagnostic support, payment, and prescription services (Damayanti & Ernawaty, 2022). According to the Ministry of Health Regulation No. 129/Menkes/SK/II/2008, outpatient waiting time comprises several stages: registration, waiting to be called into the consultation room, and the medical service itself. Both national and international standards, such as those set by the Ministry of Health and the Joint Commission International (JCI), stipulate that outpatient waiting times should ideally not exceed one hour.

Nevertheless, national reports have shown that many hospitals fail to meet this target. For example, data from late 2021 indicated that national compliance with outpatient waiting time standards had not yet reached eighty percent, standing at only seventy-six percent. Beyond waiting time, other factors such as patient volume, staffing levels, administrative procedures, and the efficiency of queuing systems also affect satisfaction. Studies such as those by Simarmata et al. (2021) and Agustina (2020) provide evidence that administrative delays, high patient loads, and limited facilities are significant contributors to dissatisfaction.

Hospital X in East Jakarta, classified as a type C hospital and a referral facility for surrounding primary health centers, plays an essential role in providing accessible health services. The hospital aims to balance its social function with financial sustainability, continuously improving both its infrastructure and service quality. Preliminary findings indicated that many patients expressed dissatisfaction with physician punctuality and excessive delays before entering consultation rooms. Such negative experiences are often shared with relatives and communities, potentially damaging the hospital's reputation.

Ultimately, patient satisfaction is the outcome of a comprehensive evaluation of service experiences, influenced by factors such as medical quality, communication, comfort, staff courtesy, and most importantly, waiting time. Prior research consistently underscores the significant role of waiting time in shaping satisfaction, particularly in outpatient settings where efficiency and timeliness are highly valued.

METHODS

This research employed a quantitative approach with a cross-sectional design, which allows the analysis of the relationship between independent and dependent variables within a single period of data collection. The cross-sectional design was chosen because it is effective for identifying associations between waiting time and patient satisfaction without requiring long-term follow-up. This method is widely used in health service studies as it provides an accurate snapshot of service quality and patient perceptions at the time of measurement.

The study population consisted of all patients visiting the outpatient department of Hospital X in East Jakarta during the research period. As a referral hospital serving a large number of patients under the national health insurance scheme, the outpatient unit has a relatively high daily patient volume. The inclusion criteria focused on adult patients who had

completed outpatient services, were willing to participate, and were capable of providing informed responses. Patients in emergency conditions or those unwilling to provide consent were excluded to maintain data validity.

The sample size was determined using the Slovin formula with a predetermined level of precision. Based on the outpatient population, the minimum required respondents were identified, and the sample was increased to ensure adequate representation and reliability. The final number of respondents was sufficient to meet statistical requirements, thereby strengthening the generalizability of the findings within the study setting. A purposive sampling technique was applied, allowing the researcher to select respondents who met the inclusion criteria and were directly relevant to the study objectives.

Data collection employed two instruments tailored to measure both the independent and dependent variables. Waiting time was measured objectively using a stopwatch and an observation sheet, recording the duration from patient registration to the beginning of medical consultation. Meanwhile, patient satisfaction was assessed through a structured questionnaire consisting of multiple items on a Likert scale, covering aspects such as timeliness, staff responsiveness, communication, comfort, and overall impressions of service quality. The questionnaire was adapted from established satisfaction measurement tools to ensure reliability and validity.

Before the main data collection, a pilot test was conducted on a small group of respondents to assess the clarity and reliability of the questionnaire items. The results of the pilot test confirmed that the instrument was well understood by patients and suitable for use in the study context. Construct validity and reliability testing further confirmed that the questionnaire achieved acceptable levels of internal consistency, thereby providing confidence in its use for the main survey.

Data collection was carried out over a defined period to ensure that respondents represented the usual patient flow and service delivery conditions at the outpatient unit. Trained enumerators assisted in recording waiting times and distributing questionnaires immediately after patients completed their medical consultations. This timing minimized recall bias and ensured that responses accurately reflected the patients' real-time experiences with waiting and satisfaction.

Data analysis was conducted using both descriptive and inferential statistical techniques. Descriptive analysis summarized demographic characteristics, waiting times, and satisfaction levels. Inferential analysis employed a simple linear regression test to examine the association between waiting time and patient satisfaction. Prior to the regression analysis, data were tested for normality to determine the suitability of parametric methods. Statistical significance was established based on commonly accepted confidence levels in health research.

Ethical considerations were strictly adhered to throughout the study. Informed consent was obtained from all respondents, and confidentiality of personal information was maintained. The research protocol was reviewed and approved by the hospital management and the relevant institutional ethics committee, ensuring compliance with national and institutional standards for research involving human participants.

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RESULTS AND DISCUSSION

1. Univariate Analysis

The respondents in this study were patients who received services at the Nikel Polyclinic of Hospital X in East Jakarta during the research period. Respondents were selected using purposive sampling with inclusion criteria covering patients who had completed medical services at the clinic, were willing to participate, and were able to provide the required information. A total of ninety-one respondents were included. Data collected consisted of the waiting time experienced by patients and their level of satisfaction with the services provided. The purpose of this study was to obtain an accurate description of how waiting time influences patient satisfaction, serving as a basis for improving service quality at the Nikel Polyclinic of Hospital X in East Jakarta.

Table 1. Frequency Distribution by Gender (n = 91) of Respondents at the Nikel Polyclinic, East Jakarta, 2025

Gender	Frequency	Percentage (%)
Male	39	42.9
Female	52	57.1

Based on Table 1, which presents the characteristics of respondents by gender at the Nikel Polyclinic of X Hospital, the majority were female, accounting for 57.1 percent, while male respondents represented 42.9 percent of the total sample of ninety-one participants.

Table 2. Frequency Distribution by Age of Respondents at the Nikel Polyclinic, X Hospital, East Jakarta, 2025 (n = 91)

Age Group	Frequency	Percentage (%)
< 20 years	4	4.4
20–29 years	23	25.3
30–39 years	38	41.8
40–49 years	16	17.6
≥ 50 years	10	11

Based on Table 2, the majority of respondents at the Nikel Polyclinic of X Hospital in East Jakarta were in the 30–39 years age group, accounting for 41.8 percent. This was followed by respondents aged 20–29 years (25.3 percent), 40–49 years (17.6 percent), ≥50 years (11.0 percent), and those under 20 years (4.4 percent).

Table 3. Frequency Distribution by Education Level of Respondents at the Nikel Polyclinic, X Hospital, East Jakarta, 2025 (n = 91)

Education Level	Frequency	Percentage (%)
Elementary School	8	8.8
Junior High School	23	25.3
Senior High School	43	47.3

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Higher Education	17	18.7

Based on Table 3, most respondents at the Nikel Polyclinic of X Hospital in East Jakarta had completed senior high school, accounting for 47.3 percent. This was followed by respondents with junior high school education (25.3 percent), higher education (18.7 percent), and elementary school (8.8 percent).

Table 4. Distribution of Patient Satisfaction and Waiting Time at the Nikel Polyclinic, X Hospital, East Jakarta, 2025

Variable	Mean	Standard Deviation	Range	Minimum	Maximum
Patient Satisfaction	32.44	3.023	14	25	38
Waiting Time	58.04	5.783	32	39	70

Based on Table 4 the average patient satisfaction score was 32.44 with a standard deviation of 3.023, a range of 14, a minimum score of 25, and a maximum score of 39. For waiting time, the mean was 58.04 with a standard deviation of 5.783, a range of 32, a minimum of 39, and a maximum of 70.

2. Normality Test Results

Table 5. Normality Test Results for Waiting Time and Patient Satisfaction of Respondents at the Nikel Polyclinic, X Hospital, East Jakarta, 2025

Variable	Mean	Median	Standard Deviation	p-value
Patient Satisfaction	32.44	32	2.953	0.2
Waiting Time	58.04	59	2.953*	0.2

Based on Table 5, the normality test for waiting time and patient satisfaction at the Nikel Polyclinic of X Hospital in East Jakarta showed a p-value of 0.200, which is greater than the alpha value of 0.05. This indicates that both variables were normally distributed. Therefore, the subsequent bivariate analysis employed a parametric statistical test, namely simple linear regression.

3. Bivariate Analysis Results

Table 6. Relationship Between Waiting Time and Patient Satisfaction at the Nikel Polyclinic, X Hospital, East Jakarta, 2025

Coefficient	B	R Square	Sig.
(Constant)	38.915		
Waiting Time → Patient Satisfaction	-0.112	0.046	0.042

Based on Table 6, the simple linear regression analysis between waiting time and patient satisfaction at the Nikel Polyclinic of X Hospital in East Jakarta showed a constant

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value of 38.915, indicating that patient satisfaction would remain at this level if waiting time were minimal. The regression coefficient was –0.112, meaning that each increase in waiting time reduced satisfaction by 0.112 points. The negative coefficient confirms that waiting time has an inverse effect on satisfaction, with the regression equation expressed as Y = 38.915 – 0.112X. The significance value was 0.042 ($p < 0.05$), demonstrating a significant relationship between the two variables. The R square value of 0.046 indicates that waiting time accounted for 4.6 percent of the variation in patient satisfaction, while the remaining 95.4 percent was influenced by other factors not examined in this study.

Disscussion

1. Frequency Distribution of Respondents by Characteristics (Gender, Age, and Education Level)

The study revealed that among the ninety-one respondents at the Nikel Polyclinic of X Hospital in East Jakarta, most were female, within the age range of thirty to thirty-nine years, and had completed senior high school education. Previous empirical studies have shown that demographic characteristics can influence patient satisfaction. Older patients often report higher satisfaction due to simpler expectations and a greater tolerance of service limitations, while younger patients tend to be more critical, especially regarding speed, technology, and communication. Gender differences in satisfaction are usually minimal, though some studies note slightly higher satisfaction among male patients. Education level, however, often plays a stronger role: patients with higher education tend to be more critical because of stronger health literacy and higher expectations, whereas those with lower education levels report simpler satisfaction. Overall, patient satisfaction remains influenced not only by demographic factors but also by communication quality, service efficiency, empathy, and facility comfort.

2. Relationship Between Waiting Time and Patient Satisfaction at the Nikel Polyclinic of X Hospital

The findings indicate a significant negative relationship between waiting time and patient satisfaction: longer waiting times were associated with lower satisfaction. This aligns with previous research demonstrating that prolonged waiting often leads to discomfort and frustration, which negatively affect perceptions of service quality. From a managerial perspective, managing waiting time is crucial for improving service quality, as delays are directly linked to patient dissatisfaction. Strategies such as optimizing scheduling, improving service flow, implementing effective queuing systems, and leveraging technology for faster registration and consultation can help reduce waiting times. Training staff to enhance efficiency and communication is also essential. In conclusion, reducing waiting time plays a critical role in improving patient satisfaction and overall service quality at the Nikel Polyclinic of X Hospital, and these findings provide practical insights for other health facilities seeking to enhance patient experience.

CONCLUSION

This study highlights the significant role of waiting time in shaping patient satisfaction within outpatient services at the Nikel Polyclinic of X Hospital in East Jakarta. The findings demonstrate that longer waiting periods are closely associated with lower levels of satisfaction, whereas timely services contribute positively to the overall patient experience. Patient satisfaction is not solely determined by clinical outcomes but also by the quality of interaction, efficiency of processes, and comfort of the environment. The study also emphasizes that demographic characteristics such as age, gender, and education level may influence satisfaction, although their impact tends to be less consistent compared to the effect of waiting time.

From a managerial perspective, the results underline the importance of minimizing delays through effective scheduling, streamlined administrative procedures, and the application of technology to support faster service delivery. Improvements in communication and staff responsiveness further enhance the perception of quality and build trust between patients and health providers. Hospitals must therefore adopt strategies that integrate efficiency with empathy to ensure that services meet or exceed patient expectations.

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