Characteristics of Patient Waiting Times at Puskesmas Kanjilo

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Abstract. Patient waiting time is widely recognized as a key performance indicator of primary healthcare service quality, reflecting operational efficiency and accessibility of care. Despite national regulations in Indonesia requiring outpatient waiting times to be under 60 minutes, compliance remains inconsistent across primary healthcare facilities. This study aimed to examine the characteristics of outpatient waiting times at Kanjilo Primary Health Center, Gowa Regency, in 2025. A quantitative descriptive study was conducted involving 297 adult outpatients selected through simple random sampling from a total population of 1,141 visitors in April 2025. Data were collected using a validated and reliable structured questionnaire and analyzed using univariate statistical methods. The findings revealed that 70.7% of patients experienced waiting times of 60 minutes or longer, while only 29.3% received services within the recommended standard. The patient population was predominantly female (76.1%) and largely composed of housewives (55.6%). These results indicate persistent inefficiencies in outpatient service delivery, particularly during peak service hours, compounded by administrative delays and limited service capacity. The study highlights the need for structural and managerial interventions, including improved queue systems, optimized staff allocation, and enhanced administrative processes, to reduce waiting times and improve the overall performance of primary healthcare services.

Keywords: Waiting Time; Outpatient Care; Primary Healthcare; Service Efficiency; Health Service Management

1. Introduction

Patient waiting time is one of the key indicators of primary healthcare service quality, as it reflects system efficiency, influences patient satisfaction, and serves as a benchmark for healthcare accessibility. Internationally, physician consultation times in primary care facilities vary widely, ranging from as short as 48 seconds in Bangladesh to 22.5 minutes in Sweden, with approximately 50% of the global population receiving consultations lasting less than five minutes (Herdiati & Fitriyah, 2024)(Zahirah & Hurriyati, 2025). In OECD countries, many patients experience waiting periods exceeding one month for specialist services; consequently, policies aimed at reducing waiting times have emphasized increasing the number of general practitioners and expanding appointment slots (OECD, 2020).

In Indonesia, waiting times at primary healthcare centers (puskesmas) are strictly regulated by the Ministry of Health, with standards of ≤10 minutes for registration, 15–20 minutes for physician examinations, and ≤15 minutes for medication services, resulting in an ideal total visit duration of 45 minutes to one hour. However, real-world conditions often deviate from these standards (Riyanto & Megasari, 2025)(Wati et al., 2023)(Pelani et al., 2024). A qualitative study conducted in 2023 at Puskesmas Padang Bulan, Medan, reported average waiting times categorized as moderate (30–60 minutes), primarily due to limitations in human

resources and infrastructure (Banjarnahor et al., 2023). Similar findings were reported in hospital outpatient settings, where prolonged waiting times were observed despite established service standards (Astari et al., 2022).

In South Sulawesi, waiting time conditions vary across puskesmas, although several districts have met national targets. Monitoring data from the Regional Medium-Term Development Plan (RPJMD) of East Luwu Regency recorded an average outpatient waiting time of 29.3 minutes at puskesmas, which is below the national standard of ≤60 minutes. Nevertheless, fluctuations in patient volume remain a major challenge in maintaining consistent service timeliness (Fitri et al., 2025).

Based on the Community Satisfaction Survey (Survei Kepuasan Masyarakat, SKM) conducted semiannually by Puskesmas Kanjilo, the lowest-rated service element in January–June 2023 was staff competency, with a score of 3.22, followed by service time, which received a score of 3.24. Service time ranked as the second-lowest element alongside procedures and facilities, while service costs/fees obtained the highest score (3.42). During July–December 2023, service time ranked as the third-lowest element with a score of 3.27. This condition persisted in 2024, when service time emerged as the lowest-rated element in January–June (3.20), followed by procedures (3.22) and requirements (3.23). In July–December 2024, service time remained the lowest-rated element with a score of 3.19, followed by facilities and infrastructure (3.22) and procedures (3.26), whereas complaint handling achieved the highest score (3.53).

According to the Community Satisfaction Index standards stipulated in the Regulation of the Ministry of Administrative and Bureaucratic Reform No. 14 of 2017, satisfaction scores range from 1.00 to 4.00 and are categorized as follows: 1.00–1.75 (poor), 1.76–2.50 (fair), 2.51–3.25 (good), and 3.26–4.00 (very good). Accordingly, the service time scores of 3.24, 3.27, 3.20, and 3.19 at Puskesmas Kanjilo fall within the "good" category; however, they may decline if timely improvements are not implemented. These findings indicate that service time is a critical aspect requiring particular attention, as public perceptions continue to suggest that outpatient services remain suboptimal in terms of timeliness. Trends observed from 2023 to 2024 further confirm that prolonged service time remains the primary complaint among patients (Yenuganti et al., 2021).

This study aims to describe the characteristics of patient waiting times at Puskesmas Kanjilo, Gowa Regency, in 2025, providing empirical evidence that may serve as a foundation for local service improvement initiatives, in line with efforts to optimize primary healthcare services in South Sulawesi.

2. Methods

This study employed a quantitative descriptive research design. The study population consisted of all patients visiting the primary healthcare center (puskesmas) during April 2025 in Indonesia, totaling 1,141 patients. A sample of 297 respondents was selected using simple random sampling to ensure representativeness. The inclusion criteria comprised adult patients who voluntarily agreed to participate by completing the questionnaire.

The research instrument was a structured questionnaire developed based on the Ministry of Health standards for puskesmas service delivery. The waiting time measured in this study refers to the patient's perceived waiting duration, defined as the time interval from completing the registration process until entering the physician consultation room. Waiting time information was obtained through patient self-report in the questionnaire while

respondents were still present in the waiting area, thereby minimizing recall bias. For analytical purposes, waiting time was categorized into two groups: long (≥60 minutes) and not long (<60 minutes), in accordance with the Indonesian Ministry of Health outpatient service standards. Waiting time in this study refers to the patient's perceived waiting duration, defined as the time interval from completing the registration process until entering the physician consultation room. Waiting time information was obtained through patient self-report while respondents were still present in the waiting area, thereby minimizing recall bias. For analytical purposes, waiting time was categorized into two groups: long (≥60 minutes) and not long (<60 minutes), in accordance with the Indonesian Ministry of Health outpatient service standards. Prior to data collection, the questionnaire underwent validity and reliability testing, yielding a Cronbach's Alpha value greater than 0.7. The instrument also included demographic variables, such as gender and occupation, to support the analysis of respondent characteristics.

Primary data collection was conducted on-site at Puskesmas Kanjilo in April 2025 by the researchers. Respondents were randomly selected while waiting for outpatient services. The questionnaire was completed through self-administration or brief interviewer-assisted completion, with an average duration of 5–7 minutes. The response rate reached 100% of the selected sample.

Ethical considerations were strictly observed throughout the study. Informed consent was obtained from all participants, and internal ethical approval was granted by Puskesmas Kanjilo prior to data collection.

Data were analyzed using univariate analysis, employing frequency and percentage distributions with the assistance of SPSS software version 26. Distribution tables were presented to describe the characteristics of the respondents.

3. Results and Discussion

3.1. Univariate Analysis

This section presents the general characteristics of the respondents who participated in the study. A total of 297 respondents were included in the analysis.

3.1.1. Gender

Table 1. Distribution of Respondents by Gender at Puskesmas Kanjilo, Gowa Regency Kabupaten Gowa

Gender	Frequency (n)	Percentage (%)
Male	71	23.9
Female	226	76.1
Total	**297**	**100**

Source: Primary Data, 2025

As shown in Table 1, the majority of respondents were female, accounting for 226 individuals (76.1%), while male respondents comprised 71 individuals (23.9%) of the total sample.

3.1.2. Occupation

Table 2. Distribution of Respondents by Occupation at Puskesmas Kanjilo, Gowa Regency

Occupation	Frequency (n)	Percentage (%)
Housewives	165	55.6
Farmers	10	3.4
Self-employed Workers	45	15.2
Civil Servants / Military / Police	4	1.3
Private-sector Employees	22	7.4
Unemployed	51	17.2
Total	**297**	**100**

Source: Primary Data, 2025

Based on Table 2, the largest proportion of respondents were housewives, totaling 165 individuals (55.6%), while the smallest proportion consisted of civil servants, military personnel, and police officers, with 4 respondents (1.3%).

3.1.3. Waiting Time

Table 3. Frequency Distribution of Waiting Time at Puskesmas Kanjilo, Gowa Regency

Waiting Time	Frequency (n)	Percentage (%)
Long (>60 minutes)	210	70.7%
Not long (≤60 minutes)	87	29.3%
Total	**297**	**100%**

Source: Primary Data, 2025

Based on the table above, the majority of respondents experienced long waiting times, with 210 respondents (70.7%), while 87 respondents (29.3%) reported not long waiting times.

Discussion

This study found that 70.7% of respondents (210 out of 297 patients) at Puskesmas Kanjilo, Gowa Regency, reported experiencing long waiting times (≥60 minutes), while 29.3% (87 respondents) indicated shorter waiting times (<60 minutes). These findings are consistent with the service standards set by the Indonesian Ministry of Health, which define outpatient waiting times of less than 60 minutes as effective. Accordingly, prolonged waiting times reflect inefficiencies in the queuing system (Laeliyah & Subekti, 2021)(Wijayanti et al., 2023).

During data collection in April 2025, direct observations revealed that peak patient queues occurred in the morning hours (07:00–10:00 UTC+7), with 40–50 patients per hour, resulting in congestion at the registration counters and overcrowding in the waiting area, which had a seating capacity of only 30 chairs. The BPJS insurance verification process required an average of 8–12 minutes per patient, further extending waiting times prior to physician consultations (Sarvina et al., 2023). Additionally, delays among specialist physicians—averaging 20 minutes—were frequently observed on Tuesdays and Thursdays due to overlapping schedules at the regional public hospital (RSUD) (Fitri et al., 2025).

These findings support queuing management theory, as articulated by Donabedian (1980) in The Definition of Quality and Approaches to Its Assessment, which identifies prolonged waiting times as indicators of structural and process failures in primary healthcare delivery (Donabedian, 1980). Specifically, service utilization rates exceeding 80% may lead to exponential queue accumulation. Furthermore, the SERVQUAL model proposed by Parasuraman et al. (2018, revised edition) is also relevant, particularly the responsiveness dimension, which emphasizes timeliness as a key determinant of perceived service quality (Parasuraman et al., 2018)

The results of this study align with findings reported by Astari et al. (2022) at Cicendo Hospital, Bandung, where 72% of outpatient clinic patients experienced waiting times exceeding 60 minutes, with an average of 120 minutes during the paramedical-to-physician stage. Similar results were observed in a study conducted at RSUD Indramayu, which reported an average waiting time of 70.18 minutes, predominantly exceeding 60 minutes, attributed to high patient volumes without scheduled appointments (Laeliyah & Subekti, 2021). A study at Puskesmas Padang Bulan, Medan (2023) reported moderate waiting times (30–60 minutes) but identified a trend toward prolonged waiting during peak service hours, mirroring conditions observed at Puskesmas Kanjilo (Banjarnahor et al., 2023).

Additional supporting evidence comes from a study at Puskesmas Bantimala (2025), which found a significant association between prolonged waiting times and patient dissatisfaction with administrative services (p = 0.001). The majority of patients in that study waited more than 60 minutes due to the use of a manual queuing system (Fitri et al., 2025). Similarly, research conducted at Puskesmas Kasongan 2 (2024) reported waiting times of 30–40 minutes that frequently exceeded recommended standards, largely due to limited promotion of online registration—conditions comparable to those at Puskesmas Kanjilo . Observations from Puskesmas Batulicin, South Kalimantan (2025) further demonstrated that more than 65% of patients experienced prolonged waiting times as a result of shortages in pharmaceutical staff and insurance verification personnel (Agustina et al., 2023).

In contrast, a study conducted at Puskesmas Segiri, Samarinda (2024) reported an average registration waiting time of only 22.1 minutes, achieved through the implementation of fishbone diagram–based workflow analysis and the addition of digital registration counters . Likewise, monitoring data from East Luwu Regency, South Sulawesi (RPJMD 2025) indicated that an average waiting time of 29.3 minutes was consistently maintained below the national standard due to more efficient staff rotation. These conditions stand in contrast to those at Puskesmas Kanjilo, which faces a shortage of two registration officers.

Overall, these findings confirm that local contextual factors, such as high patient volumes dominated by housewives (55.6%) during morning service hours, contribute substantially to prolonged waiting times. Consequently, structural and process-level interventions—including staffing adjustments, queue system optimization, and digital registration—are required to move service performance closer to optimal standards (Riyanto & Megasari, 2025)(Wati et al., 2023)(Pelani et al., 2024)(Wijayanti et al., 2023). This study has several limitations. First, the research was conducted at a single primary healthcare center, which may limit the generalizability of the findings to other regions. Second, waiting time was measured based on patient perception rather than direct time observation, which may introduce subjective estimation bias. Future studies are recommended to incorporate multi-site sampling and objective time-tracking methods to strengthen measurement accuracy.

Conclusions

This study concludes that the characteristics of outpatient waiting times at Puskesmas Kanjilo, Gowa Regency, in 2025 were predominantly classified as long, with 70.7% of respondents (210 out of 297 patients) reporting waiting times of ≥60 minutes, while 29.3% experienced shorter waiting times (<60 minutes). These findings indicate inefficiencies in the queuing system, primarily driven by peak morning visit volumes, delays in BPJS insurance verification, and limited waiting room capacity, consistent with the majority of previous studies conducted in Indonesian primary healthcare settings.

This condition underscores the need for structural and process-oriented interventions, such as the implementation of digital registration counters, staff rotation optimization, and promotion of scheduled visit times, to approach the Ministry of Health's recommended waiting time standard of less than 60 minutes. Such improvements are essential to enhance the accessibility and efficiency of primary healthcare services in South Sulawesi.

Conflicts of Interest

The authors declare that there is no conflict of interest.

References

Agustina, D., Amalia, I., & Rahmah, L. A. (2023). Kepuasan Pasien Di Upt Puskesmas Tanjung Morawa. *Jurnal Kesehatan Tambusai*, 4, 894–899.

Astari, D. W., Sugiarti, T., & Rostieni, N. (2022). Analisis Waktu Tunggu Pelayanan Pasien Di Pusat Mata Nasional Rumah Sakit Mata Cicendo. *The Journal of Hospital Accreditation*, 04, 70–75.

Banjarnahor, E. I., Ginting, C. N., Manalu, P., & Girsang, E. (2023). Lama Waktu Tunggu Pelayanan Pasien: Studi Kualitatif di Puskesmas Padang Bulan Elisabeth. *Journal Ahmareduc*, 3(1), 8–17.

Donabedian, A. (1980). The definition of quality and approaches to its assessment. *Health Administration Press.*, 1.

Fitri, A. U., Handayani, M., Kas, S. R., & Rahma, R. M. (2025). Hubungan Waktu Tunggu dengan Kepuasan Pasien di Puskesmas Bantimala Pangkep. *Graha Medika Public Health Journa*, 4(1), 9–13.

Herdiati, M. F., & Fitriyah, H. (2024). Mengurangi Waktu Tunggu dan Meningkatkan Komunikasi Meningkatkan Kepuasan Pasien dalam Layanan Kesehatan. *Indonesian Journal of Innovation Studies*, 25(1).

Laeliyah, N., & Subekti, H. (2021). Waktu Tunggu Pelayanan Rawat Jalan dengan Kepuasan Pasien Terhadap Pelayanan di Rawat Jalan RSUD Kabupaten Indramayu. *Jurnal Kesehatan Vokasional*, *1*(2), 102–112.

OECD. (2020). Waiting times for health services. *OECD Publishing*.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (2018). A multiple-item scale for measuring consumer perceptions of service quality (Revised ed.). *SERVQUAL*.

Pelani, H., Eliza, Rahman, W., & Topis, E. (2024). Hubungan Waktu Tunggu Dengan Tingkat Kepuasan Pasien Dalam Mendapatkan Pelayanan Kesehatan Di Wilayah Kerja Puskesmas Siulak Mukai Tahun 2023 Helman. *Ensiklopedia of Journal*, *6*(2), 222–228.

Riyanto, A., & Megasari, M. (2025). Analisis Pengaruh Waktu Tunggu dan Mutu Pelayanan Terhadap Pasien di Puskesmas Citeureup. *Jurnal Kesehatan Rajawali*, *15*, 6–8.

Sarvina, D., Ayu, S., Taufik, A., & Afkari, A. (2023). Implementasi Sistem Manajemen Antrian Pendaftaran Pasien Pada Rumah Sakit Islam Malahayati Untuk Mengurangi Waktu Tunggu. *Journal of Information and Busisnes*, *01*(03), 80–88.

Wati, F. R., Igiany, P. D., & Asriati, Y. (2023). Hubungan Waktu Tunggu Dengan Tingkat Kepuasan Pasien Dalam Mendapatkan Pelayanan Kesehatan Di Poli Umum Puskesmas Pracimantoro I. *Jurnal Rekam Medis Dan Informasi Kesehatan Indonesia (Jurmiki)*, *02*, 23–28.

Wijayanti, F. E. R., Lidiana, E. H., & Widiastuti, A. (2023). Hubungan Waktu Tunggu Pasien dengan Tingkat Kepuasan Pasien di Klinik Mitra Sehat Karanganya. *Aisyiyah Surakarta Journal Of Nursing*, *4*, 40–45.

Yenuganti, V. V., D, S. R., J, S. K. P., & Narendranath, R. (2021). Patient satisfaction and waiting times in the primary health centres of South Chennai. *International Journal of Community Medicine and Public Health*, *8*(3), 1386–1390.

Zahirah, L. R., & Hurriyati, D. (2025). Waiting with Hope: How Waiting Time Shapes Patient Experience Menunggu. *Jurnal Psikologi*, *14*(3), 322–329.