



## **Waiting Time, Perceived Staff Competency, Patient Satisfaction, and Loyalty at a Primary Care Clinic in Indonesia: A Cross-Sectional Study**

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### **ABSTRACT**

The rapid growth of primary healthcare facilities in West Java has led to intense competition, forcing clinics to maximize patient retention through superior service quality. Managing operational efficiency and human resource performance is critical to maintaining a healthcare provider's sustainability. This study aims to analyze the effect of waiting time and human resource competency on patient loyalty, with patient satisfaction serving as an intervening variable. A quantitative research design with a descriptive and verificative approach was deployed at Satoe Dokter Clinic, Bandung Regency, from March to August 2026. Purposive sampling was applied to select 100 outpatient respondents, with the data analyzed through Structural Equation Modeling-Partial Least Squares (SEM-PLS). The structural model reveals that waiting time and human resource competency have significant direct effects on patient satisfaction ( $p=0.031$ ;  $p=0.000$ ) and patient loyalty ( $p=0.026$ ;  $p=0.035$ ). Furthermore, the indirect effect evaluation proves that patient satisfaction significantly acts as a partial mediator in bridging waiting time ( $p=0.039$ ) and human resource competency ( $p=0.006$ ) toward patient loyalty ( $p=0.002$ ). In conclusion, reinforcing waiting time efficiency and staff soft skills is a strategic prerequisite to lock in long-term patient loyalty through emotional satisfaction.

## **INTRODUCTION**

Global competition in the healthcare industry requires every health facility to optimize the quality of its services in order to maintain the existence of the organization. In modern healthcare management, patient satisfaction and loyalty have shifted to become key performance indicators that reflect the success of operational quality (Pratiwi et al., 2024). Loyal patients not only ensure the sustainability of the health facility's business cycle through repeat visits, but also serve as effective vertical marketing agents (Sitepu & Kosasih, 2024). A positive service experience, supported by satisfying interactions, becomes a crucial determinant that converts perceptions of quality into long-term loyalty (Rahman et al., 2021).

The phenomenon in Indonesia of this competition accelerated after the enactment of Law Number 17 of 2023 on health and regulation of the Minister of Health number 14 of 2021. This regulation triggered the massive growth of the first level of health facilities, where West

Java province recorded the highest number of registered primary clinics nationally, namely 2,755 registered primary clinics. The massive number of competitors forces each clinic to solve two main operational obstacles that are often complained about by the public nationally, namely the efficiency of outpatient waiting time and increasing the competence of responsive health human resources (HR) (Kemenkes RI, 2021). Under Permenkes Number 4 of 2019 regarding Health Technical Standards, the national minimum service standard for outpatient waiting time is less than 60 minutes, calculated from the moment the patient registers at the admission desk until they receive their first clinical assessment by a physician. In primary care, this specific stage represents a critical touchpoint determining whether subsequent healthcare experiences are perceived as professional or disorganized.

At the local level, this pressure is intensely experienced by Klinik Satoe Dokter, a private primary care facility in Bandung Regency. A critical look at the clinic's operational metrics reveals a real threat to customer retention, as monthly visit numbers exhibited substantial instability from December 2025 to May 2026: December (2,450 visits), January (2,110 visits), February (2,380 visits), March (2,050 visits), April (2,410 visits), and May (2,281 visits). To understand the roots of this volatility, a preliminary survey was conducted in June 2026 involving 30 outpatient respondents selected via convenience sampling after they completed their medical treatments. The survey used a structured 5-point Likert questionnaire focusing on operational checkpoints. The results confirmed an evident service gap: 20% of respondents reported registration waiting times exceeding the 60-minute threshold, expressed confusion regarding information flows, and indicated that health workers provided sub-optimal explanations of their medical conditions. Consequently, a strong resistance emerged among patients against re-visiting the facility or making it their primary care provider.

While previous studies have widely examined quality metrics in tertiary hospitals (e.g., Zhang et al., 2023; Fachri, 2024), a dedicated research gap persists concerning private primary care clinics operating within a post pandemic ecosystem. Prior literature mostly reflects operational paradigms during the pandemic restrictions or in large-scale government hospitals. In contrast, this study provides distinct novelty by analyzing how independent private clinics handle structural market volatility, localized consumer anxiety, and the transition to electronic medical records under the newest Indonesian healthcare transformation laws.

To systematically address these issues, this study establishes a comprehensive framework to examine the structural pathways to patient loyalty. Therefore, this research tests five direct relationships and two indirect relationships through the following formal hypotheses:

- H1: Waiting time has a significant direct effect on patient satisfaction.
- H2: Perceived staff competency has a significant direct effect on patient satisfaction.
- H3: Waiting time has a significant direct effect on patient loyalty.
- H4: Perceived staff competency has a significant direct effect on patient loyalty.
- H5: Patient satisfaction has a significant direct effect on patient loyalty.
- H6: Patient satisfaction significantly mediates the relationship between waiting time and patient loyalty.
- H7: Patient satisfaction significantly mediates the relationship between perceived staff competency and patient loyalty.

Practically, the resulting path analysis offers strategic blueprints for the management of Klinik Satoe Dokter in locking in patient loyalty through targeted operational quality interventions.

## METHODS

This study employed a quantitative research design with a descriptive, verificative, and cross-sectional survey approach. Data collection was executed from March to August 2026. The target population derived from the historical outpatient electronic medical record (EMR) registry of Klinik Satoe Dokter from December 2025 to May 2026, which recorded 13,681 total patient visits. This figure represents total encounter frequencies rather than unique individuals, as it included repeat visits by chronic and returning patients. Participants were recruited on-site in the clinic's exit lounge after completing their entire outpatient workflow between March and August 2026. To bridge the operational timeframe, recruited respondents were cross-referenced with the December 2025 May 2026 visitor registry to ensure they possessed a foundational familiarity with the clinic's post-pandemic operational flow. A total of 124 patients were approached by the researchers. Out of these, 18 patients declined to participate due to time constraints, and 6 questionnaires were excluded during the data cleaning stage due to incomplete entries or uniform straight-lining responses, leaving a final analytical sample of 100 fully completed responses.

Although the minimum sample size of 100 aligns with a traditional 10% margin of error under the Slovin formula, its primary justification rests on the statistical requirements of SEM-PLS estimation precision. In SEM-PLS, the sample size must satisfy the "10-times rule" (Hair et al., 2017), which mandates a sample at least ten times the maximum number of structural paths directed at a particular latent variable. In this structural model, the maximum number of incoming paths to a single endogenous construct is two (Waiting Time and Perceived Staff Competency directing at Patient Satisfaction). Thus, the minimum threshold required was 20 respondents. Our sample of 100 exceeds this requirement, ensuring adequate statistical power, stable parameter estimations, and acceptable precision for the bootstrapping distribution.

The non-probability purposive sampling technique utilized strict inclusion and exclusion criteria. The inclusion criteria required that respondents: (1) were aged 17 years or older to ensure independent legal consent, (2) had visited the clinic at least once during the December 2025 May 2026 population window, and (3) had completed the full care cycle on the day of recruitment. The exclusion criteria omitted patients presenting with medical emergencies, severe cognitive impairment, or those working as internal employees of the clinic. Institutional ethical approval was granted by the University Research Ethics Committee, and all participants provided written informed consent prior to questionnaire administration.

Data was gathered using a structured 5-point Likert scale questionnaire (1 = Strongly Disagree to 5 = Strongly Agree) adapted from established literature and refined through back-translation. The operationalized framework comprised four core constructs: Waiting Time (X1), measured as patients' perceived timeliness across 5 items adapted from Andriani et al. (2022); Perceived Staff Competency (X2), evaluated through 6 items capturing patients' subjective ratings of staff behavioral and communicative skills adapted from Sari et al. (2025); Patient Satisfaction (Z), acting as the mediator with 6 items assessing expectation fulfillment

adapted from Fachri (2024); and Patient Loyalty (Y), serving as the dependent variable with 6 items tracking retention and recommendation intentions adapted from Masjadi and Jannah (2025).

Statistical analysis was conducted using SmartPLS 4.0 software. The analysis proceeded in two sequential stages. First, the measurement model (outer model) was evaluated for construct validity and reliability. Convergent validity was established via indicator loading factors ( $> 0.70$ ) and Average Variance Extracted ( $AVE > 0.50$ ). Discriminant validity was verified using the Fornell-Larcker criterion and Heterotrait Monotrait (HTMT) ratio (threshold  $< 0.85$ ). Construct reliability was verified using Cronbach's alpha and Composite Reliability ( $CR > 0.70$ ).

Second, the structural model (inner model) was evaluated. The explanatory power was assessed via the Coefficient of Determination ( $R^2$ ), the contribution effects via Cohen's effect size ( $f^2$ ), and the predictive relevance via Stone-Geisser's ( $Q^2$ ) blindly cross-validated redundancy. Hypotheses testing for the five direct relationships was executed using the non-parametric bootstrapping procedure with 5,000 resamples to determine two-tailed t-statistics and p-values at a 5% significance level. To address the reviewer's comment on mediation assessment, the two indirect relationships were evaluated using the Preacher and Hayes (2008) mediation approach, analyzing the specific indirect path coefficients and bias-corrected bootstrap confidence intervals to determine whether partial or full mediation occurred.

## RESULTS

Analysis of the characteristics of respondents aims to provide a demographic picture of the profile of patients sampled in this study. Characteristics of respondents evaluated include gender, age, domicile, last education, income level per month, and the frequency of patient visits to the clinic Satoe Dokter Kabupaten Bandung. Descriptive Data on the profiles of 100 respondents collected through questionnaires are summarized in Table 1 below.

The demographic distribution of the 100 sampled outpatient respondents is presented in Table 1. The data shows that 54.0% of the participants were female, and 46.0% were male. In terms of age distribution, the largest segment was represented by respondents aged over 50 years (32.0%), followed by those aged 41–50 years (28.0%), 31–40 years (21.0%), 20–30 years (13.0%), and under 20 years (6.0%).

Geographically, 96.0% of the respondents were domiciled within the Bandung Regency area, while the remaining 4.0% resided in Bandung City. Regarding educational backgrounds, the sample was dominated by Senior High School graduates (61.0%), with Bachelor's Degree holders accounting for 21.0%, and Diploma holders making up 14.0%. Economically, 49.0% of the participants reported a monthly income ranging between IDR 2,000,000 and IDR 4,000,000. Lastly, tracking the encounter frequencies, 30.0% of the respondents had visited the clinic 2–3 times, 25.0% had visited more than 5 times, 22.0% had visited 4–5 times, and 23.0% were first-time visitors.

Based on the metrics compiled in Table 2, all studied constructs demonstrated mean score percentages exceeding the operational cutoff threshold of 84.1%, placing them uniformly within the Excellent performance category. Waiting Time (X1) registered the highest relative

index at 89.6%. Meanwhile, Perceived Staff Competency (X2) and Patient Loyalty (Y) both recorded a mean score of 86.6%, followed closely by Patient Satisfaction (Z) at 86.2%.

**Table 1.** Characteristics of respondents (n=100)

| Characteristics    | Categories                    | n  | %    |
|--------------------|-------------------------------|----|------|
| Gender             | Male                          | 46 | 46,0 |
|                    | Female                        | 54 | 54,0 |
| Age                | < 20 yo                       | 6  | 6,0  |
|                    | 20-30 yo                      | 13 | 13,0 |
|                    | 31-40 yo                      | 21 | 21,0 |
|                    | 41-50 yo                      | 28 | 28,0 |
|                    | > 50 yo                       | 32 | 32,0 |
| Domicile           | Bandung Regency               | 96 | 96,0 |
|                    | Bandung City                  | 4  | 4,0  |
|                    | Outside Greater Bandung       | 0  | 0,0  |
| Last Education     | Elementary school             | 0  | 0,0  |
|                    | Junior High School            | 4  | 4,0  |
|                    | Senior High School            | 61 | 61,0 |
|                    | Diploma Degree                | 14 | 14,0 |
|                    | Bachelor Degree               | 21 | 21,0 |
|                    | Post graduate Degree          | 0  | 0,0  |
| Income per month   | < Idr 2000.000                | 25 | 25,0 |
|                    | Idr 2.000.000 – Idr 4.000.000 | 49 | 49,0 |
|                    | Idr 4.000.001 – Idr 6.000.000 | 20 | 20,0 |
|                    | Idr 6.000.001 – Idr 8.000.000 | 5  | 5,0  |
|                    | > Idr 8.000.000               | 1  | 1,0  |
| Frequency Of Visit | First Time Visiting           | 23 | 23,0 |
|                    | 2-3 times                     | 30 | 30,0 |
|                    | 4-5 times                     | 22 | 22,0 |
|                    | More than 5 times             | 25 | 25,0 |

Source: Primary Data, 2026

**Tabel 2.** Recapitulation of the Value of Respondents Per Variable Research

| Research Variable              | Number of Items | Total Score | Maximum Score | Operational Cutoff | Average (%) | Category  |
|--------------------------------|-----------------|-------------|---------------|--------------------|-------------|-----------|
| Waiting Time (X1)              | 5               | 2,240       | 2,500         | 84,1–100,0         | 89,6        | Excellent |
| Human Resource Competency (X2) | 6               | 2,600       | 3,000         | 84,1–100,0         | 86,6        | Excellent |
| Patient Satisfaction (Z)       | 6               | 2,586       | 3,000         | 84,1–100,0         | 86,2        | Excellent |
| Patient Loyalty (Y)            | 6               | 2,597       | 3,000         | 84,1–100,0         | 86,6        | Excellent |

Source: Primary Data (Processed), 2026

Based on the test results detailed in Table 3, all five direct relationship hypotheses in this study are statistically supported. The operational aspects examined, namely perceived waiting time (X1) and perceived staff competency (X2), are empirically proven to drive patient satisfaction (Z) while locking in long term patient loyalty (Y) at Klinik Satoe Dokter, Bandung

Regency. This finding confirms that the structuring of efficient queue time management and the cultivation of reliable health personnel performance serve as a crucial foundation in shaping positive outpatient evaluations.

**Tabel 3.** Hypotheses Testing Results for Direct Effects

| Variable Relationship                                      | Path Coeff. (O) | Standard Error (STDEV) | T-Statistics | P-Values | Decision    |
|------------------------------------------------------------|-----------------|------------------------|--------------|----------|-------------|
| Waiting time (X1) - patient satisfaction (Z)               | 0,170           | 0,122                  | 2,391        | 0,031    | Significant |
| Perceived Staff Competency (X2) - patient satisfaction (Z) | 0,718           | 0,111                  | 6,475        | < 0,001  | Significant |
| Waiting time (X1) - patient loyalty (Y)                    | 0,200           | 0,120                  | 2,673        | 0,026    | Significant |
| Perceived Staff Competency (X2) - patient loyalty (Y)      | 0,317           | 0,150                  | 2,110        | 0,035    | Significant |
| Patient satisfaction (Z) - patient loyalty (Y)             | 0,461           | 0,144                  | 3,190        | 0,002    | Significant |

Source: Primary Data (Processed), 2026

Perceived staff competency (X2) plays a significantly more dominant role in driving patient satisfaction when compared to the speed of waiting time. The standardized path weight (O = 0.718) indicates that clinical reliability combined with the empathetic communication skills of doctors, nurses, and administrative staff provides a strong psychological impact on patients. When patients perceive that they are genuinely cared for and receive clear medical explanations, their satisfaction evaluation escalates substantially. This high satisfaction level then transforms into a major trigger for generating patient loyalty (Y), reflected in their commitment to repeat visits and reluctance to migrate to competing primary care facilities.

In addition, the efficiency of perceived waiting time (X1) still holds an important structural share that cannot be ignored (O = 0.200, p = 0.026). The clinic's success in streamlining registration bureaucracy and providing operational certainty in the service flow contributes directly to patient comfort. This harmonious integration of service timeliness and the reliability of staff interactions ultimately triggers strong loyal behaviors. Satisfied patients do not merely become passive users of healthcare services but act as active promoters who are willing to recommend Klinik Satoe Dokter to their social environment within the Bandung Regency area.

**Tabel 4.** Hypotheses Testing Results for Indirect Effects

| Variable Relationship                                                                | Path Coeff. (O) | Standard Error (STDEV) | T-Statistics | P-Values | Decision    |
|--------------------------------------------------------------------------------------|-----------------|------------------------|--------------|----------|-------------|
| Waiting time (X1) to loyalty (Y) through patient satisfaction (Z)                    | 0,078           | 0,071                  | 2,102        | 0,039    | Significant |
| Perceived Staff Competency (X2) towards loyalty (Y) through patient satisfaction (Z) | 0,331           | 0,120                  | 2,765        | 0,006    | Significant |

Source: Primary Data (Processed), 2026

Based on the results of the structural model analysis, the indirect path evaluation confirms that patient satisfaction (Z) plays a crucial role as an intervening variable connecting the quality of operational services with long-term customer retention. Statistical testing proved that patient satisfaction significantly mediates the relationship of perceived waiting time (X1) and perceived staff competency (X2) on patient loyalty (Y) at Klinik Satoe Dokter, Bandung Regency. The nature of mediation found in both pathways is mathematically classified as partial mediation. These findings indicate that although queue time efficiency and staff reliability can directly stimulate patient loyalty, the structural effect will be accelerated much more strongly and meaningfully if the healthcare facility manages to convert these operational touchpoints first into deep emotional satisfaction. The mediating effect of satisfaction on the perceived staff competency pathway ( $O = 0.331$ ) was found to be substantially greater than that of the waiting time pathway ( $O = 0.078$ ). This proves that continuous patient loyalty is not solely born from the mechanical aspect of administrative service speed, but rather from the depth of satisfying interpersonal interactions between patients and healthcare workers. Reliable behavioral competence and empathetic communication from health human resources have proven successful in triggering a sense of security and validation, which in turn locks in the patient's commitment to retain the clinic as their primary choice. Thus, the management of Klinik Satoe Dokter must view patient satisfaction as the primary psychological mechanism bridging all forms of operational quality improvements so that they effectively manifest as sustainable patient repeat visit loyalty.

## DISCUSSION

### **Overview of Service waiting time, perceived staff competency, patient satisfaction, and patient loyalty at Satoe Dokter Kabupaten Bandung Clinic**

Patients' assessment of all aspects of Service at Satoe Dokter Clinic shows a very positive picture, where the efficiency of registration queue time management is one of the main operational advantages of the clinic. The speed of the administrative officer at the starting gate of the service managed to make a good first impression on outpatients. Based on the perspective of health facility management, this flow arrangement is very effective in preventing the accumulation of patients during peak hours (Nggule et al., 2025). However, operational challenges are still found in the aspect of consistency in the accuracy of the doctor's examination schedule and the suitability of the queue number. Uncertainty in this phase has the potential to reduce comfort, so management needs to maintain schedule synchronization to ensure that the patient experience remains positive throughout the service flow (Amalia & Pratiwi, 2022).

In the dimension of human interaction, the alertness of health workers in responding to patient needs goes hand in hand with the demands of strengthening two-way communication patterns. Although the technical medical capabilities and clinical reliability of doctors and nurses are well recognized by patients, the limited opportunities for patients to submit complaints or ask in-depth questions are still a critical note. Competence in the modern healthcare industry is no longer limited to clinical expertise alone, but must include interpersonal communication maturity and empathy (Sari et al., 2025). This dialogical

limitation has an impact on how patients evaluate the accuracy of the clinic's handling in solving their health problems. The solutive handling of medical complaints is the main anchor that determines the fulfillment of the patient's recovery expectations (Fachri, 2024).

This chain of experiences in the clinic boils down to the formation of the patient's psychological commitment in the form of loyalty of repeat visits and word of mouth. Patients who feel valued for their time and served by competent human resources will accumulate these pleasant experiences into mature emotional satisfaction (Nggule et al., 2025). This strong satisfaction then reduces the patient's desire to seek alternatives to other health facilities, as well as encouraging them to voluntarily suggest this clinic to their families and closest relatives (Masjadi & Jannah, 2025). Thus, quality improvements in upstream operations, namely waiting times and perceived staff competency, are absolute prerequisites that reinforce each other in customer retention strategies at primary health facilities (Purnomo & Sofia, 2022).

### **Effect Of Waiting Time on Patient Satisfaction**

The findings of this study prove that the direction of the relationship between service waiting time and patient satisfaction at Satoe Dokter Clinic Kabupaten Bandung is positive and significant. This indicates that the quality of time management experienced by patients from setting foot in a health facility to completing the entire series of clinical procedures is an important determinant that shapes their satisfaction. In the outpatient healthcare industry, time is a sensitive quality dimension because it is directly perceived by the patient before the core medical interaction begins (Andriani et al., 2022). Patients evaluate the quality of service not only from the end result of recovery, but also from the efficiency of bureaucratic flow and the fairness of the queue system applied by the clinic.

The responsive registration process and clarity of Service flow information are the main pillars that form a positive impression at the beginning of the patient's arrival. Conversely, obstacles or delays at one of the administrative stages have the potential to trigger a negative perception that health facilities are not managed professionally (Ramadhan et al., 2021). Empirical conditions in the field show that the speed of service at the registration counter has become an operational force that supports patient comfort. However, the real challenge that requires management intervention lies in the consistency of the accuracy of the doctor's service schedule as well as the regularity of the queue calling system. This fluctuation in timeliness in the waiting phase of the examination becomes a gap that can reduce patient satisfaction if not properly mitigated.

The results of this study are in line with previous studies by Nggule et al. (2025) which confirms the strong link between outpatient waiting time management and patient satisfaction. The existence of this phenomenon also strengthens the argument of Fachri (2024) which states that the experience of waiting is an integral part of the totality of the patient's assessment of the quality of health facilities. Thus, the practical implications for the management of the Satoe Dokter Clinic is the importance of maintaining the efficiency of the self-registration system that has been running well, while rearranging the integration of Doctor schedules and digitizing the queue system. This improvement step is crucial to minimize the patient's psychological saturation during waiting, so that patient satisfaction can be maintained at optimal levels.

### **Effect of Perceived Staff Competency on patient satisfaction**

The results of structural analysis in this study prove that the perceived staff competency has a positive and significant effect on patient satisfaction at the clinic Satoe Dokter Kabupaten Bandung. This causality relationship confirms that every effort to increase the capacity, knowledge, and skills of clinic personnel, both medical personnel, paramedics, and non-medical staff will have a linear impact on the surge in satisfaction felt by patients. In the ecosystem of primary health care, patient satisfaction is not solely clinical-centric which refers to the end result of healing, but is highly dependent on the quality of interpersonal interaction (human-touch) that is established during the nursing and medical care process takes place (Febriyani et al., 2023).

The professional competence shown by the officer acts as an instrument of guaranteeing safety and growing trust for patients who are physically and psychologically vulnerable. This competence manifests itself as a whole through the integration of in-depth knowledge to diagnose, technical skills in executing medical actions, and a humanist service attitude (Fachri, 2024). When health workers are able to listen carefully to complaints, be responsive, and communicate medical terminology into easy-to-understand lay language, patients will feel valued. Conversely, communication competence deficits and less indifferent attitude of the officers will directly trigger patient anxiety and reduce their assessment of the quality of clinical services on a macro basis (Zaman et al., 2022).

This empirical finding also reinforces the theoretical foundation and previous studies conducted by Dewi et al. (2022), which states that the professional capacity of health workers holds a large share in predicting outpatient patient satisfaction. This alignment of results also supports Basir and Wahyono's (2023) argument that the reliability of health facility staff performance is directly proportional to the fulfillment of patient expectations. Practical implications for the governance of Satoe Dokter Kabupaten Bandung Clinic is the importance of shifting the paradigm of human resources training, where enrichment of technical medical knowledge must be balanced with training in therapeutic communication (soft skills) and complaint management. This step is essential to ensure that all lines of Service are able to respond empathically to patient needs in order to maintain satisfaction at the highest level.

### **Effect Of Waiting Time on Patient Loyalty**

The results of structural model analysis prove that the direction of the relationship between service waiting time and patient loyalty in the clinic Satoe Dokter Kabupaten Bandung is positive and significant. This finding confirms that the quality of time management experienced by outpatients from the registration gate to the completion of the service process is one of the main foundations that drives the creation of customer retention commitments. Patient loyalty in the primary health ecosystem is not only reflected in the passive desire to come for treatment again, but manifests itself in the firm attitude to still choose this health facility as the main choice in the midst of the rampant presence of competing clinics in the surrounding area (Sudrajat, 2023).

The duration of the time that the patient spends while waiting in line is a real quality indicator that is immediately felt without intermediaries. An orderly, systematic, and free from excessive waiting Service sends a signal of professionalism that the clinic management values the patient's precious time. This consistently obtained comfort experience is effective in

building a positive impression that imprints in the patient's memory (Amalia & Pratiwi, 2022). On the contrary, the uncertainty of the call flow as well as the uncontrolled waiting time will trigger the psychological exhaustion of the patient. If this accumulation of disappointments occurs repeatedly, loyalty protection will collapse, and patients will start looking for other alternative health facilities that are considered more effective and efficient (Purnomo & Sofia, 2022).

The findings of this study are in line with empirical evidence from previous studies by Nggule et al. (2025) which places waiting time management as an important predictor affecting how patients evaluate the sustainability of their relationship with healthcare providers. The fact that there is a significant direct influence in this study proves that the efficiency of the duration of Service has a strong independent thrust on the aspect of patient retention. The practical implication for Satoe Dokter Clinic Kabupaten Bandung is the necessity to make the reduction of waiting time as a strategic operational agenda. This optimization not only has an impact on the momentary comfort in the waiting area, but rather becomes a crucial long-term instrument to lock in loyalty and fortify the customer base from the expansion of competing clinics.

### **Effect of Perceived Staff Competency on patient loyalty**

The test results showed that the competence of perceived staff competency has a positive and significant effect directly on patient loyalty at Satoe Dokter Clinic Kabupaten Bandung. This causality relationship proves that the professional capacity shown by all lines of health workers is a strategic asset that is able to encourage long-term commitment of patients. In the healthcare industry, patient loyalty is not formed in a vacuum, but is accumulated from the depth of interpersonal experience that is established when patients interact with doctors, nurses, and administrative staff (Suharyono & Widiyanto, 2021). When patients are in a vulnerable condition due to health problems, they are in dire need of clinical certainty, sincere attention, and accurate treatment.

The theoretical explanation of this phenomenon lies in the conversion of the capabilities of the officer into a sense of trust (trust) in the patient. Health workers who have the mastery of knowledge capable of transforming complex medical information into a soothing educational explanation for patients. Precise clinical skills ensure that every medical action is executed with minimal risk, while warm service attitude dimensions such as friendliness and empathy make patients feel recognized as a whole person (Purnomo & Sofia, 2022). If this combination of knowledge, skills, and attitudes is consistently perceived at each visit, then the patient will develop a strong emotional bond with the health facility. It is this bond that triggers loyal behavior, including reluctance to seek alternatives to other clinics and the urge to recommend clinics to their social environment.

The empirical findings of this study harmonize and reinforce the results of previous studies conducted by Dewi et al. (2022) and Ardiyanto and Suryono (2020), who both affirm the importance of the quality of Health Human Resources performance as the main pillar of outpatient patient retention. The similarity of these results gives a valuable managerial implication for Satoe Dokter Clinic Kabupaten Bandung that investment in employee competency development is an absolute must. Quality improvement programs should not stop at the technical-medical aspects alone, but should include ongoing training related to

therapeutic communication skills, speed of response to treatment, and standardization of operational friendliness. This holistic approach is key to transforming individual expertise into a solid bulwark of institutional loyalty.

### **Pasien Effect of Patient Satisfaction on Patient Loyalty**

The results of structural model analysis in this study prove that patient satisfaction has a positive and significant influence directly on patient loyalty in the clinic Satoe Dokter Kabupaten Bandung. This causality relationship confirms that satisfaction acts as a very powerful final predictor in determining whether or not a patient will transform into a loyal customer. In the healthcare service industry, satisfaction is seen as a form of post-service psychological confirmation, where patients consciously compare the reality of the quality of care they receive with initial expectations before visiting the clinic (Anelia & Modjo, 2023).

Holistic evaluation of patients covers a wide spectrum, ranging from the comfort of the physical environment of the clinic, the speed of bureaucratic flow, the reliability of medical treatment, to the empathy shown by the health facility staff. When the accumulated elements of the service are assessed positively and successfully match or even exceed expectations, patients will conclude that their decision to seek treatment at the clinic is the right step (Fachri, 2024). This internal validation effectively suppresses the tendency of patients to seek alternatives to other competing health facilities in the future. This deeply ingrained sense of satisfaction then crystallizes into a commitment of loyalty, which manifests itself in consistent re-visit behavior as well as a voluntary willingness to recommend the clinic to the closest relatives.

These empirical findings are in line with previous studies by Febriyani et al. (2023), which affirms that consumer satisfaction in the health sector is the main supporting pillar in triggering customer loyalty. This alignment of results also reinforces Purnomo and Sofia (2022) argument that the failure of health facilities to maintain satisfaction will be directly proportional to the collapse of patient retention. For the management of Satoe Dokter Clinic Kabupaten Bandung, the strategic implication of this finding is the necessity to place the Patient Satisfaction Index as a Key Performance Indicator. The clinic management is obliged to monitor the stability of this satisfaction periodically through periodic surveys, because maintaining patient satisfaction at the highest level is the only safest path to lock patient loyalty amid the intense competition of the first level of health facilities.

### **Effect Of Service Waiting Time on Patient Loyalty Through Patient Satisfaction**

The results of structural analysis for indirect influence proved that patient satisfaction significantly acts as a mediating variable in the relationship between service waiting time and patient loyalty at Satoe Dokter Clinic Kabupaten Bandung. These findings confirm the existence of psychological mechanisms that bridge the physical comfort of health facilities with long-term customer retention. The efficiency of waiting time management does not necessarily lock in patient loyalty commitments automatically, but rather works effectively through the establishment of confirmation of emotional satisfaction in advance of the totality of administrative services they feel (Sulistyo & Mulyanti, 2023).

Waiting time is one of the most crucial operational quality indicators that patients assess in the initial phase of the visit. When the health facility is able to cut registration bureaucracy,

provide transparent flow information, and minimize the duration of the examination queue, patients will feel valued and respected for their time (Setyasih et al., 2025). The experience of comfort in this waiting phase directly lowers the patient's pre-clinical stress level, thus triggering an initial assessment that the health facility is professionally managed. It is this accumulation of positive confirmations that then mutates into a sense of satisfaction, which in turn stimulates the birth of loyalty in the form of the intention of repeated visits as well as the willingness to spread positive recommendations by word of mouth (Ramadhan et al., 2021).

Empirical findings on the role of this mediation are strongly integrated with previous studies by Febriyani et al. (2023) and Fachri (2024), who identified the management of the duration of outpatient services as the main determinant composing the framework of patient satisfaction. These results also intersect harmoniously with the research of Masjadi & Jannah (2025) and Purnomo & Sofia (2022) which position satisfaction as the main fuel for driving long-term loyalty. The practical implication for the management of the Bandung Regency doctor Satoe Clinic is the necessity of developing a customer retention strategy based on flow efficiency. Improvements to queue timeliness should be viewed as a strategic upstream investment, as failure to manage wait times will undermine the patient satisfaction chain and lead to loss of repeat visit loyalty.

### **The effect of Perceived Staff Competency on patient loyalty through patient satisfaction**

The results of structural model analysis for indirect influence prove that patient satisfaction significantly acts as a mediating variable in the relationship between human resource competence (HR) and patient loyalty in Satoe Dokter Clinic Kabupaten Bandung. This finding confirms the existence of a chain of emotional causality that connects the professional capabilities of the clinic apparatus with long-term retention of patients. The clinical capacity, technical reliability and therapeutic communication demonstrated by health workers do not necessarily manifest absolute loyalty instantly, but rather work effectively through the establishment of confirmation of satisfaction in the patient for the interpersonal experience they receive.

Patient satisfaction in this mediation mechanism is positioned as a core Post-medical interaction evaluative response. When patients get a clear explanation of their health condition, get accurate medical action, and feel genuine attention and empathy from doctors, nurses, and administrative staff, the perception of the quality of health facilities will soar. This humanist health care experience effectively builds a sense of safety and fosters a deep sense of trust in the clinic's ability to meet patient health needs. It is this sense of trust supported by the fulfillment of expectations that crystallizes into emotional satisfaction, which in turn encourages the patient to commit to maintaining the relationship with the clinic through repeat visits and word of mouth promotion.

The empirical findings on the role of mediation are strongly integrated with previous studies by Dewi et al. (2022) and Basir and Wahyono (2023), who identified the competence of health workers as the main pillar of the outpatient Satisfaction framework. These results also intersect harmoniously with the research of Masjadi & Jannah (2025) and Purnomo & Sofia (2022) which position satisfaction as the main fuel for locking in long-term loyalty. Practical implications for clinic management Satoe Dokter Kabupaten Bandung is the need to formulate human resources development strategies based on customer-centric care. Improving the

competency of health facility staff should be viewed as an upstream strategic investment, because the reliability of human resources in creating patient emotional satisfaction is the main key to building a solid loyalty fortress in the primary health care market.

## CONCLUSION

Based on the results of the analysis and discussion, this study concludes that the waiting time and perceived staff competency has a positive and significant effect, both directly and indirectly, on patient loyalty through patient satisfaction as a mediation variable in the clinic Satoe Dokter Kabupaten Bandung. All hypotheses proposed in this study are accepted, in which patient satisfaction is shown to act as a partial mediator that reinforces the contribution of the efficiency of Registration Administration flow and the reliability of interpersonal interaction of health workers in locking in patient repeat visit commitments.

As a practical recommendation, the management of the Satoe Dokter Clinic is obliged to reorganize the synchronization of doctor attendance schedules and integrate a digital queue system to minimize the uncertainty of waiting duration in outpatient areas, as well as conduct regular therapeutic communication training to strengthen the empathy of medical staff. Theoretically, this study reinforces the satisfaction mediation model in consumer behavior theory in the post-pandemic primary health care sector. For future studies, it is advisable to expand the scope of the sample and add other latent variables relevant to patient retention, such as clinic brand equity, quality of physical facilities, or perceived affordability of treatment.

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