



BPJS Patient Satisfaction As Reviewed From Outpatient Services at Ambulu Community Health Center

ABSTRACT

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This study aimed to analyze the satisfaction level of BPJS outpatients with the quality of healthcare services at Ambulu Community Health Center and to identify the gap between patients' perceptions and expectations for each service quality attribute. A quantitative survey design was employed involving 94 BPJS outpatients selected using the Slovin formula. Data were collected through a structured questionnaire and analyzed using the SERVQUAL method, Customer Satisfaction Index (CSI), and Importance Performance Analysis (IPA). The findings revealed negative gap scores across all SERVQUAL dimensions, indicating that the services provided had not fully met patients' expectations. The largest gap was identified in the empathy dimension, followed by tangibles, responsiveness, assurance, and reliability. The CSI value of 77.61% indicates that overall patient satisfaction was within the satisfied category, although satisfaction varied across individual service attributes. Furthermore, the IPA results identified two priority attributes in Quadrant I, namely waiting room seating facilities and staff expressions of gratitude at the end of the service, suggesting that these important aspects require immediate improvement. Overall, the findings demonstrate that patient satisfaction is strongly influenced by specific service attributes rather than overall service performance. Managerially, the results provide guidance for health center managers to prioritize improvements in physical facilities and interpersonal service quality to enhance patient satisfaction. Theoretically, this study supports the application of the SERVQUAL, CSI, and IPA approaches as complementary tools for evaluating and improving healthcare service quality in primary healthcare settings.

Keywords: Community Health Center; Importance Performance Analysis; Patient Satisfaction; Service; SERVQUAL

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INTRODUCTION

Community health centers (Puskesmas) are the cornerstone of Indonesia's primary healthcare system and serve as the first point of contact for most participants of the National Health Insurance (JKN) program. As first-level healthcare facilities, puskesmas are responsible not only for curative and rehabilitative services but also for promotive and preventive healthcare aimed at improving community well-being (Salsabilla et al., 2025). Their performance directly influences public trust in the healthcare system

because they provide accessible, affordable, and equitable services for the majority of the Indonesian population (Palittin et al., 2025).

The increasing utilization of primary healthcare services has made service quality an increasingly important issue. Healthcare quality is reflected not only by clinical outcomes but also by patients' experiences regarding communication, responsiveness, empathy, waiting time, staff competence, and the physical environment of healthcare facilities (Septiana et al., 2023). As healthcare consumers become more aware of their rights and expectations, patient satisfaction has become an important indicator for evaluating healthcare performance and organizational competitiveness.

Indonesia has implemented the National Health Insurance (JKN) program through the Social Security Administering Agency for Health (BPJS Kesehatan) to achieve Universal Health Coverage (UHC). By 2024, more than 98% of the Indonesian population had been registered as JKN participants, making it one of the largest single-payer health insurance systems in the world. The sustainability of this program depends not only on financial management but also on the quality of healthcare services delivered by first-level healthcare facilities. Low patient satisfaction may reduce public trust, increase unnecessary referrals to higher-level hospitals, decrease patient compliance with treatment, and ultimately increase healthcare expenditures within the JKN system. Therefore, improving patient satisfaction at primary healthcare facilities has become both a managerial priority for healthcare providers and an economic necessity for maintaining the long-term sustainability of the national health insurance program (Saputro & Fathiyah, 2022).

Patient satisfaction represents the extent to which healthcare services meet or exceed patient expectations (Oliver, 2014). In outpatient services, satisfaction is influenced by various factors, including the physical environment, waiting time, staff courtesy, communication, responsiveness, service reliability, and empathy demonstrated by healthcare professionals (Pamungkas et al., 2023). Consequently, patient satisfaction has become one of the principal indicators for evaluating healthcare quality and organizational performance in public health institutions.

Ambulu Community Health Center, located in Jember Regency, East Java, serves a large number of BPJS participants every year. Based on data from the Ambulu Community Health Center, the number of outpatient visits increased from 18,764 visits in 2022 to 21,385 visits in 2023, and further increased to 24,917 visits in 2024. This upward trend indicates a growing demand for primary healthcare services among BPJS participants. Along with the increasing service utilization, several patient complaints have also been reported, primarily concerning long waiting times, limited seating capacity in the waiting area, inconsistent staff friendliness, and perceptions of unequal treatment compared with non-BPJS patients. These conditions suggest that the increase in patient volume has not been fully accompanied by improvements in service quality, making Ambulu Community Health Center an appropriate setting for investigating BPJS outpatient satisfaction.

Numerous previous studies have evaluated healthcare service quality using the SERVQUAL model because it effectively measures the gap between patients' expectations and perceptions across five service quality dimensions. However, most of these studies only report gap values without providing an overall measure of patient satisfaction or determining which service attributes should receive the highest priority for improvement. Consequently, managerial recommendations generated from SERVQUAL alone are often less specific for healthcare decision-makers. This methodological limitation creates an important research gap because healthcare managers require analytical approaches that not only identify service deficiencies but also quantify overall satisfaction and establish clear priorities for quality improvement.

To address this limitation, the present study integrates three complementary analytical methods: SERVQUAL, Customer Satisfaction Index (CSI), and Importance Performance Analysis (IPA). SERVQUAL identifies the gaps between patients' expectations and perceived service performance, CSI measures the overall level of patient satisfaction through a comprehensive satisfaction index, and IPA classifies service attributes according to their importance and performance to determine improvement priorities. Although these methods have individually been widely applied in healthcare research, studies integrating all three approaches simultaneously in evaluating BPJS outpatient services at Indonesian community health centers remain limited, particularly in Ambulu Community Health Center. Therefore, the novelty of this study lies in providing a more comprehensive framework that not only measures service quality gaps but also quantifies overall patient satisfaction and produces evidence-based managerial priorities for service improvement.

The findings of this study are expected to contribute both theoretically and practically. Theoretically, this research enriches the application of integrated service quality measurement models in primary healthcare settings by demonstrating the complementary roles of SERVQUAL, CSI, and IPA. Practically, the results provide healthcare managers with evidence-based recommendations for improving service quality, increasing patient satisfaction, strengthening patient loyalty, and supporting the long-term sustainability of the National Health Insurance (JKN) program through better performance of primary healthcare facilities.

LITERATURE REVIEW

Patient satisfaction has become one of the most important indicators of healthcare quality because it reflects patients' overall evaluation of the healthcare services they receive. According to Oliver (2014), satisfaction results from the comparison between patients' expectations before receiving healthcare services and their perceptions after the services are delivered. In primary healthcare settings, patient satisfaction influences treatment adherence, patient loyalty, utilization of healthcare services, and public trust in healthcare institutions. Therefore, healthcare providers are increasingly encouraged to evaluate not only clinical outcomes but also patients' experiences throughout the service process.

Among the various approaches used to assess healthcare service quality, the SERVQUAL model developed by Parasuraman et al. remains one of the most widely adopted frameworks (Endeshaw, 2021). SERVQUAL conceptualizes service quality as the gap between customer expectations and perceived service performance across five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. These dimensions have consistently been demonstrated to represent the essential aspects of healthcare services because they capture both the technical and interpersonal components of service delivery. Recent healthcare studies have confirmed that deficiencies in any of these dimensions contribute to lower patient satisfaction and reduced confidence in healthcare providers (Jonkisz et al., 2022; Rahmatia et al., 2025).

Although SERVQUAL is effective in identifying gaps between expectations and perceptions, previous studies have highlighted several limitations. The method primarily reports gap scores for each service attribute but does not provide an overall measurement of patient satisfaction or indicate which attributes should be prioritized for managerial improvement. Consequently, healthcare managers often face difficulties translating SERVQUAL findings into practical quality-improvement strategies, particularly when multiple service attributes exhibit similar gap values.

To overcome these limitations, recent studies recommend combining SERVQUAL with complementary analytical approaches. The Customer Satisfaction Index (CSI) summarizes patients' overall satisfaction into a single index, allowing healthcare organizations to evaluate general service performance and compare satisfaction levels across different healthcare facilities or periods (Sabaruddin et al., 2024). Meanwhile, Importance–Performance Analysis (IPA) classifies service attributes into four quadrants based on their importance and performance, enabling managers to identify which service attributes require immediate improvement, which should be maintained, and which receive excessive organizational resources (Slamet & Sulistiyowati, 2022).

The integration of SERVQUAL, CSI, and IPA provides a more comprehensive analytical framework than the application of each method individually. SERVQUAL identifies the magnitude of service quality gaps, CSI measures the overall level of patient satisfaction, and IPA translates the findings into managerial priorities for service improvement. Therefore, these three methods complement one another and enable healthcare managers to formulate evidence-based quality improvement strategies. This integrated analytical framework is particularly relevant for evaluating BPJS outpatient services at community health centers, where increasing patient demand requires continuous monitoring of both service quality and patient satisfaction.

Accordingly, this study does not seek to examine causal relationships among variables but rather to comprehensively evaluate healthcare service quality using three complementary analytical methods. The five SERVQUAL dimensions constitute the basis for measuring perception–expectation gaps. The resulting gap scores are subsequently analyzed using the Customer Satisfaction Index (CSI) to determine the overall level of patient satisfaction and Importance–Performance Analysis (IPA) to establish managerial priorities for quality improvement. This integrated framework provides a comprehensive

assessment of healthcare service quality while generating practical recommendations for improving outpatient services at Ambulu Community Health Center.

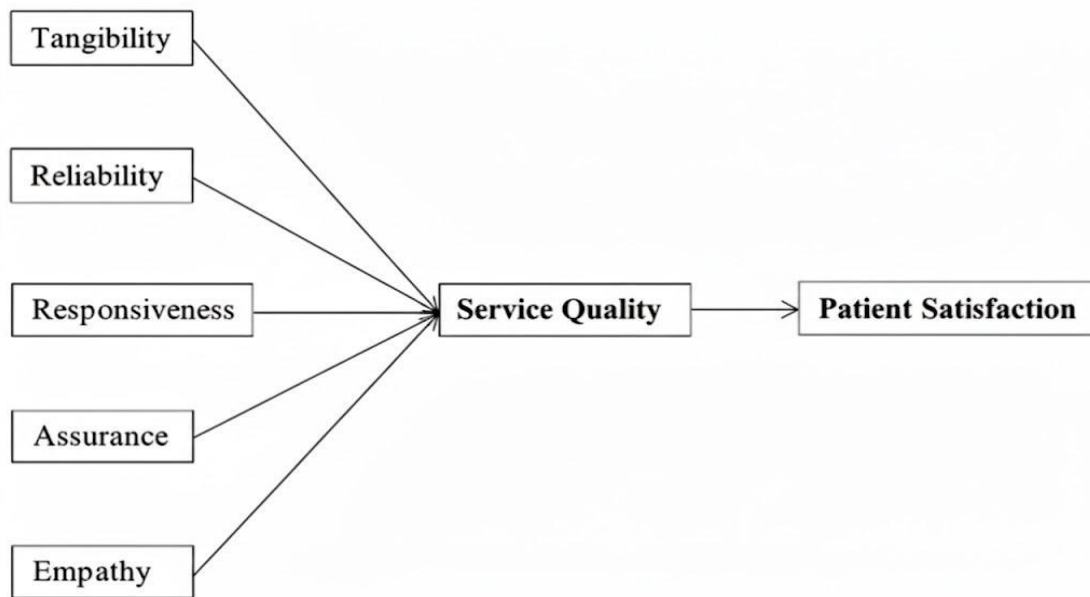


Figure 1. Research Model
Source: Data processed (2026)

METHODOLOGY

This study employed a quantitative survey design using primary data collected through structured questionnaires administered directly to BPJS outpatients at Ambulu Community Health Center. Data collection was conducted in December 2025. During this period, the health center recorded 3.316 outpatient visits, of which 1.546 were BPJS outpatients, representing the study population. Respondents were selected using accidental (convenience) sampling, whereby BPJS outpatients who met the inclusion criteria and agreed to participate during the data collection period were recruited. The minimum sample size was determined using the Slovin formula with a 5% margin of error, which is widely recommended for healthcare service research to ensure greater statistical precision.

$$n = \frac{N}{1 + N(\text{and}^2)}$$

$$n = \frac{1546}{1 + 1546(0,05^2)}$$

$$n = \frac{1546}{1 + 1546(0,0025)}$$

$$n = \frac{1546}{4.865}$$

$$n = 318$$

n : Number of Samples

N : Research Population

and : Level of accuracy/error margin

The research instrument consisted of a structured questionnaire developed based on the five SERVQUAL dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Each service attribute was assessed using two parallel statements measuring patients' expectations and patients' perceptions of the services received. Responses were measured using a five-point Likert scale ranging from 1 (strongly disagree/very poor) to 5 (strongly agree/very good). The questionnaire contained 19 service attributes distributed across the five SERVQUAL dimensions, as presented in Table 1.

Table 1. Research Questionnaire

A	DIRECT EVIDENCE
A1	Registration counter in clean condition
A2	Waiting room in clean condition
A3	The doctor's examination room is clean
A4	The number of seats in the waiting room is sufficient.
A5	Health workers must appear clean and neat
B	RELIABILITY
B6	The doctor explained the patient's illness well and clearly.
B7	Health workers explain how to treat the disease suffered by the patient
B8	Health workers are skilled in providing services
C	RESPONSIVENESS
C9	The registration section serves quickly
C10	Health workers listen to patient complaints carefully and attentively
C11	Health workers are responsive in helping patients who come
D	GUARANTEE
D12	Doctors have the ability to diagnose diseases and treat them well, so they can provide a sense of comfort and confidence in recovery.
D13	Health workers provide opportunities for patients and families to ask questions.
D14	Creating a peaceful atmosphere in the Community Health Center environment
D15	Creating a family atmosphere between health workers and patients
AND	EMPATHY
E16	Health workers always act friendly and politely when serving patients.
E17	Patient officers provide health services without differentiating between one patient and another.
E18	Health workers always use language that is easy for patients to understand when communicating.
E19	Health workers always express their gratitude at the end of providing health services to patients.

Source: Data processed (2026)

The data obtained was then analyzed gap, negative values indicate that the expected value is higher than reality. Then the data was also analyzed using customer Satisfaction Index CSI with the following satisfaction category values:

Table 2. Satisfaction Criteria

No	CSI Value (%)	Information
1	0.00 – 25.00	Very Unsatisfactory
2	25.01 – 50.00	Not Satisfactory
3	50.01 – 70.00	Rate-rate
4	70.01 – 90.00	Satisfying
5	90.01 – 100.00	Very satisfactory

Source: Ferreira et al. (2023)

RESULTS

The results of this study reflect the perceptions and expectations of BPJS outpatients at Ambulu Community Health Center. The results were analyzed using SERVQUAL, CSI, and IPA methods. The research instruments were first tested for validity and reliability. The results showed that all instrument items were valid and reliable, making them suitable for further analysis.

Table 3. Average Value of Perception and Expectation of Direct Evidence Dimension (Tangible)

No	Attribute Code	Average Perception Score	Average Expected Value	Gap
1	A1	3.82	4.09	-0.27
2	A2	3.72	4.10	-0.37
3	A3	3.95	4.28	-0.33
4	A4	2.95	4.26	-1.31
5	A5	3.98	4.17	-0.19

Source: Data processed (2026)

Based on Table 3, the average perception score for the tangible evidence dimension ranges from 2.95 to 3.98, while the average expectation score ranges from 4.09 to 4.28. This indicates that respondents' expectations for the tangible evidence aspect are generally higher than their perceived perceptions. Attribute A5 has the highest perception score (3.98), indicating that respondents rate this attribute relatively well. Conversely, attribute A4 shows the lowest perception score (2.95), making it an aspect that requires special attention. Regarding expectations, the highest score is found in attribute A3 (4.28), indicating that this attribute is considered very important by respondents.

Table 4. Average Value of Perception and Expectation of Reliability Dimension

No	Attribute Code	Average Perception Score	Average Expected Value
1	B6	4.53	4.61
2	B7	4.09	4.15
3	B8	4.06	4.16

Source: Data processed (2026)

Based on Table 4, the average value for the reliability dimension, respondents' perceptions ranged from 4.06 to 4.53, while the average value for expectations ranged from 4.15 to 4.61. These results indicate that in general, service in the reliability dimension has been assessed as good by respondents, although expectations are still slightly higher than perceptions. Attribute B6 has the highest perception value (4.53), indicating that the reliability aspect is perceived as very good. Meanwhile, attribute B8 shows the lowest perception value (4.06), although it is still in the good category. On the expectation side, the highest value is found in attribute B6 (4.61), indicating that this attribute is considered very important by respondents.

Table 5. Average Value of Perception and Expectation of Responsiveness Dimension

No	Attribute Code	Average Perception Score	Average Expected Value
1	C9	4.41	4.56
2	C10	3.99	4.12
3	C11	3.89	4.13

Source: Research Data 2025

Based on Table 5, the average perception score for the responsiveness dimension ranged from 3.89 to 4.41, while the average expectation score ranged from 4.12 to 4.56. This indicates that respondents considered the responsiveness of the service to be quite good, but it still did not fully meet expectations. Attribute C9 had the highest perception score (4.41), indicating that officers were considered quite fast and responsive in providing service. Conversely, attribute C11 showed the lowest perception score (3.89), making it an aspect that requires more attention. On the expectation side, the highest score was found in attribute C9 (4.56), indicating that this aspect was considered very important by respondents.

Table 6. Average Value of Perception and Expectation of Assurance Dimension

No	Attribute Code	Average Perception Score	Average Expected Value
1	D12	4.49	4.52
2	D13	3.93	4.09
3	D14	3.87	4.06
3	D15	3.90	4.09

Source: Research Data 2025

Based on Table 6, the average perception score for the assurance dimension ranges from 3.87 to 4.49, while the average expectation score ranges from 4.06 to 4.52. This indicates that respondents assess the assurance aspect of service as being quite good, although expectations are still relatively higher than perceptions. Attribute D12 has the highest perception score (4.49), indicating that respondents feel quite confident in the competence and trustworthiness provided by the officers. Conversely, attribute D14 shows the lowest perception score (3.87), so it needs attention to improve quality. On

the expectation side, the highest score is found in attribute D12 (4.52), indicating that this assurance aspect is considered very important by respondents.

Table 7. Average Value of Perception and Expectation of Empathy Dimension

No	Attribute Code	Average Perception Score	Average Expected Value
1	E16	3.87	4.22
2	E17	3.27	4.21
3	E18	3.68	4.15
3	E19	3.20	4.29

Source: Data processed (2026)

Based on Table 7, the average perception score for the empathy dimension ranges from 3.20 to 3.87, while the average expectation score ranges from 4.15 to 4.29. These results indicate that respondents' perceptions of the empathy aspect are still relatively lower than their expectations. Attribute E16 has the highest perception score (3.87), indicating that the officers' attention and concern are perceived as quite good. Conversely, attribute E19 shows the lowest perception score (3.20), making it an aspect that requires special attention. On the expectation side, the highest score is found in attribute E19 (4.29), indicating that respondents strongly expect an improvement in this empathy aspect.

Table 8. Results of SERVQUAL Value Calculations on Five Quality Dimensions

No	SERVQUAL Dimensions	Average Perception Value	Average Expected Value	SERVQUAL value (gap)
1	Direct Evidence (<i>Tangible</i>)	3.68	4.18	-0.49
2	Reliability (<i>Reliability</i>)	4.23	4.30	-0.08
3	Accept (<i>Responsiveness</i>)	4.10	4.27	-0.17
4	Guarantee (<i>Assurance</i>)	4.05	4.19	-0.14
5	Empathy (<i>Empathy</i>)	3.51	4.22	-0.71
	Rate-Rate	3.91	4.23	-0.32

Source: Data processed (2026)

Based on Table 8, the results of the SERVQUAL calculation show that all dimensions of service quality have a negative gap value, which means that the respondents' perception value is still below the expected value. The empathy dimension (*empathy*) has the largest gap value of -0.71, indicating that the empathy aspect is the dimension with the highest service gap and needs to be a top priority for improvement. Furthermore, the direct evidence dimension (*tangible*) also shows a fairly large gap, namely -0.49, which indicates the need for improvements in the physical facilities and service support facilities.

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Meanwhile, the reliability dimension (*reliability*) has the smallest gap value of -0.08, which indicates that the service in this dimension is relatively close to the respondents' expectations. The responsiveness and assurance dimensions (*assurance*) each had a gap value of -0.17 and -0.14, indicating that there was still a service gap, although not too large. Overall, the average SERVQUAL value of -0.32 indicated that the quality of service provided had not fully met respondents' expectations.

Table 9. Calculation of Patient Satisfaction Level with the Method Costumer Satisfaction Index (CSI)

No	Attribute	Mean Importance Score (MIS)	Mean Satisfaction Score (MSS)	Weight Factor (WF) %	Weight Score (WS)
1	A1	4.09	3.82	5.10	19.46
2	A2	4.10	3.72	5.11	19.02
3	A3	4.28	3.95	5.33	21.05
4	A4	4.26	2.95	5.31	15.64
5	A5	4.17	3.98	5.20	20.67
6	B6	4.61	4.53	5.74	26.03
7	B7	4.15	4.09	5.17	21.12
8	B8	4.16	4.06	5.18	21.06
9	C9	4.56	4.41	5.68	25.08
10	C10	4.12	3.99	5.13	20.48
11	C11	4.13	3.89	5.15	20.04
12	D12	4.52	4.49	5.63	25.28
13	D13	4.09	3.93	5.10	20.00
14	D14	4.06	3.87	5.06	19.59
15	D15	4.09	3.90	5.10	19.90
16	E16	4.22	3.87	5.26	20.36
17	E17	4.21	3.27	5.25	17.13
18	E18	4.15	3.68	5.17	19.03
19	E19	4.29	3.20	5.35	17.12
TOTAL		8.26	73.61	100.00	388.07
CSI					77.61

Source: Data processed (2026)

Based on Table 9, the calculation results Customer Satisfaction Index The Patient Satisfaction Index (CSI) showed a value of 77.61%, indicating that patients were generally satisfied with the services provided. This value was obtained by comparing the level of importance (MIS) and the level of satisfaction (MSS) for all service attributes. However, several attributes still had relatively low satisfaction scores compared to their importance, particularly in the empathy and direct evidence dimensions, requiring attention to improve service quality going forward.

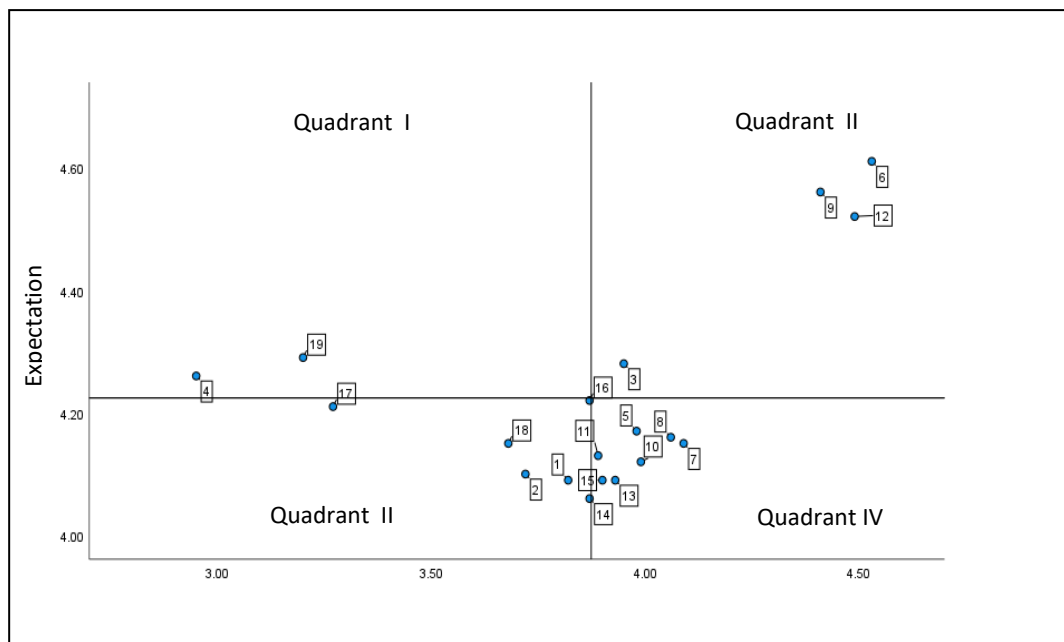


Figure 2. Cartesian diagram
Source: Data processed (2026)

DISCUSSION

The SERVQUAL analysis revealed negative gap scores across all five service quality dimensions, indicating that BPJS outpatients' expectations were consistently higher than their perceptions of the services received. This finding suggests that although Ambulu Community Health Center has been able to provide acceptable healthcare services, it has not yet fully met the increasing expectations of BPJS patients. This phenomenon is consistent with the expectation–confirmation theory proposed by Oliver (2014), which states that customer satisfaction is determined by the extent to which perceived performance confirms or exceeds prior expectations. As the JKN program continues to expand, patients have become more knowledgeable about healthcare quality and therefore expect faster, more responsive, and more patient-centered services.

Among the five SERVQUAL dimensions, empathy demonstrated the largest negative gap. This finding indicates that interpersonal aspects of healthcare, including individualized attention, effective communication, and emotional support, remain the greatest challenge in outpatient services. Similar findings have been reported by Jonkisz et al. (2022), who argued that patients increasingly evaluate healthcare quality based not only on technical competence but also on healthcare workers' ability to communicate respectfully and demonstrate empathy. One possible explanation is the increasing workload experienced by healthcare professionals in primary healthcare facilities following the expansion of JKN coverage. Higher patient volumes often limit consultation time, reducing opportunities for personalized interactions between healthcare workers and patients. Consequently, patients may perceive healthcare

providers as focusing primarily on completing clinical procedures rather than establishing meaningful interpersonal communication.

The Customer Satisfaction Index (CSI) of 77.61% indicates that patients were generally satisfied with outpatient services. However, this overall satisfaction should be interpreted cautiously because the SERVQUAL analysis simultaneously revealed negative gaps across all dimensions. This apparent inconsistency suggests that patient satisfaction does not necessarily indicate the absence of service quality problems. Rather, patients may remain generally satisfied because essential healthcare services are delivered adequately while still identifying deficiencies in several specific service attributes. Therefore, relying solely on CSI could obscure important quality issues, highlighting the value of integrating SERVQUAL with CSI and IPA to obtain a more comprehensive evaluation of healthcare service performance.

The IPA analysis identified two priority attributes requiring immediate managerial attention, namely the adequacy of waiting room seating (A4) and staff expressions of gratitude at the end of healthcare services (E19). Rather than representing isolated problems, these findings reflect broader organizational and managerial challenges faced by primary healthcare facilities.

The inadequate availability of waiting room seating is likely associated with the increasing utilization of BPJS outpatient services following the expansion of the JKN program. As patient visits continue to increase, the physical capacity of many community health centers has not expanded proportionally. Consequently, waiting areas become overcrowded during peak service hours, reducing patient comfort while increasing perceptions of long waiting times. Previous studies have demonstrated that the physical environment of healthcare facilities, including seating availability, cleanliness, and waiting room comfort, significantly influences patients' perceptions of service quality and overall satisfaction because these factors constitute the first tangible experience encountered during healthcare visits (Purwanto & Sugiarto, 2022). From a managerial perspective, this finding suggests the need for facility planning that aligns infrastructure capacity with increasing patient demand, including redesigning waiting areas, optimizing patient flow, and implementing appointment-based scheduling systems to reduce congestion.

Similarly, the low performance of staff expressions of gratitude at the completion of services reflects an interpersonal rather than technical quality issue. Although expressing appreciation appears to be a simple communication behavior, it contributes to patients' perceptions of empathy, respect, and patient-centered care. The relatively low performance of this attribute may result from heavy workloads, time pressure, and organizational cultures that prioritize clinical efficiency over interpersonal communication. Human resource management literature suggests that when healthcare professionals experience increasing workloads and limited consultation time, communication behaviors perceived as non-essential are often omitted despite their importance for patient experience. This finding therefore indicates the need for organizational interventions, including communication skills training, reinforcement of

patient-centered care principles, supportive supervision, and incorporation of interpersonal communication indicators into staff performance evaluations.

Attributes located in Quadrant II represent the strengths of Ambulu Community Health Center because patients considered these aspects highly important and perceived their performance positively. These attributes, including examination room cleanliness, physicians' explanations, registration services, and diagnostic competence, reflect the core clinical functions of primary healthcare. Maintaining consistent performance in these areas is essential because they form the foundation of patients' trust in healthcare providers and contribute substantially to overall satisfaction.

Meanwhile, the attributes located in Quadrants III and IV should not be interpreted as unimportant but rather as requiring different managerial approaches. Quadrant III attributes currently receive relatively low attention from patients; therefore, substantial resource allocation for these aspects may not generate significant improvements in patient satisfaction. Conversely, Quadrant IV suggests that certain service attributes are already performing well despite being perceived as relatively less important by patients. Managers may therefore evaluate whether existing resources can be redistributed toward higher-priority service improvements identified in Quadrant I.

Overall, the integration of SERVQUAL, CSI, and IPA provides a more comprehensive understanding of BPJS outpatient satisfaction than any single analytical method. SERVQUAL identifies service quality deficiencies, CSI evaluates overall patient satisfaction, and IPA translates these findings into practical managerial priorities. These results provide evidence that improving patient satisfaction requires not only maintaining clinical competence but also strengthening healthcare infrastructure, enhancing interpersonal communication, and developing organizational strategies capable of responding to the increasing demand for primary healthcare services under the JKN program. Such improvements are expected to strengthen public trust, encourage continued utilization of primary healthcare services, and contribute to the long-term sustainability of Indonesia's National Health Insurance system.

CONCLUSIONS

This study concludes that the overall satisfaction of BPJS outpatients at Ambulu Community Health Center was classified as satisfied, as indicated by a Customer Satisfaction Index (CSI) score of 77.61%. Nevertheless, the SERVQUAL analysis revealed negative gap scores across all five service quality dimensions, demonstrating that the services provided have not yet fully met patients' expectations. The largest service quality gap occurred in the empathy dimension, indicating that interpersonal communication and individualized patient care remain important areas for improvement. Furthermore, the Importance Performance Analysis (IPA) identified two priority attributes requiring immediate managerial attention: the adequacy of waiting room seating facilities and staff expressions of gratitude at the end of healthcare services. These findings indicate that overall patient satisfaction is strongly influenced by specific service attributes rather than by general service performance alone.

Implications

From a managerial perspective, the Head of Ambulu Community Health Center should prioritize improvements in the physical capacity of outpatient waiting areas by increasing seating availability and optimizing patient flow to accommodate the growing number of BPJS patients. In addition, regular training on patient-centered communication, empathy, and service etiquette should be provided to healthcare personnel to strengthen interpersonal interactions with patients. Periodic patient satisfaction evaluations using the integrated SERVQUAL–CSI–IPA approach are also recommended to monitor service quality continuously and support evidence-based quality improvement initiatives.

Limitations and recommendation

This study has several limitations. First, the research was conducted at a single community health center, limiting the generalizability of the findings to other primary healthcare facilities. Second, the study employed a cross-sectional design, which captures patient perceptions only at one point in time. Third, the analysis was limited to descriptive evaluation using SERVQUAL, CSI, and IPA and did not examine causal relationships between service quality dimensions and patient satisfaction.

Future studies are recommended to include multiple community health centers across different regions to improve the generalizability of findings. Researchers may also employ longitudinal designs to evaluate changes in patient satisfaction over time or utilize inferential analytical methods, such as Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM), to examine the causal relationships between service quality dimensions, patient satisfaction, and patient loyalty. Furthermore, future research should incorporate organizational factors, such as healthcare workforce workload, waiting time, and facility capacity, to provide a more comprehensive understanding of healthcare service quality under the National Health Insurance (JKN) program.

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