
Analysis of Outpatient Service Quality Using the ServQual Method at Puskesmas “X” Semarang City in 2025

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Abstract .

Background in: In 2024, at the Puskesmas “X” Semarang City, there was a decrease in the number of outpatient visits from October to December by 376 patients, but there was an increase in the Community Satisfaction Index (IKM) during that period by 2.43%. **Methods:** This study was classified as quantitative observational research with a descriptive analytical approach. The sampling technique used accidental sampling, with the Lameshow formula yielding a sample size of 100 outpatient respondents. The purpose of this study was to find the gap between perception and expectation of the quality dimension, so that the elements that should be maintained and improved by the “X” Community Health Center in Semarang City could be identified. Data analysis in this study used the ServQual gap method, which is the difference between perception and expectation, referred to as the gap or service quality gap. **Results:** From the Servqual gap analysis between perception and expectation, the gap with the lowest score was in the responsiveness dimension regarding “waiting time for outpatient services” with a score of (-0.35), while the gap with the highest score was in the assurance dimension regarding “feeling of safety when patients receive medical services” with a score of (0.12). **Conclusion:** The results of the study of 100 respondents at the X Community Health Center in Semarang show that the service attributes whose performance has exceeded patient expectations and need to be maintained are service attributes numbers 2, 3, 5, 7, 10, 14, 16, 17, and 19. Meanwhile, the service attributes that require performance improvement to meet patient expectations are attributes 1, 4, 6, 8, 9, 11, 12, 13, 15, 18, and 20.

Keywords: ServQual, Service Quality, Outpatient Care, Puskesmas, Quality Improvement

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INTRODUCTION

Health development as part of national development aims to improve the willingness, ability, and awareness of healthy living for everyone in order to achieve an optimal level of public health (1). Law No. 17 of 2023 in Article 4 states that everyone has the right to safe, quality, and affordable health services in order to achieve the highest possible level of health. The fundamental nature of health service provision is to meet the needs and demands of health service users (patients), where patients expect a solution to their health problems (2).

Puskesmas are primary health care facilities that organize and coordinate promotive, preventive, curative, rehabilitative, and/or palliative health services in their working areas (3). obliged to continuously develop their performance and service quality as government agencies tasked with providing health services to the community. A Puskesmas that is able to provide excellent service is one that is consistently able to meet the needs of the community, even exceeding the desires and expectations of patients (4).

The quality of health services is the level of health services for individuals and the community that can improve optimal health outcomes, provided in accordance with service standards and the latest scientific developments, as well as to fulfill the rights and obligations of patients (5). According to Tjiptono in Hendra, service quality is a condition related to the extent to which service providers can provide services that meet the expectations of their customers (6). In improving the quality of health services, the analysis method that can be used is the ServQual analysis developed by Parasuraman, Berry, et al. ServQual is a model that analyzes the gap between perceptions and expectations in customer satisfaction in five dimensions of service quality, including tangibles, reliability, responsiveness, assurance, and empathy (7).

Customer satisfaction is a feeling of pleasure or disappointment that arises from comparing one's impression of the performance (results) of a product with one's expectations (8). Customer satisfaction can be felt after customers compare their experience of purchasing goods/services from sellers or providers of goods/services with their own expectations, which are formed through their first experience of purchasing a good or service (9).

Based on previous research at the Ibum Community Health Center in Bandung Regency in measuring service quality using ServQual analysis, the research shows that the five dimensions measured obtained high scores with a total of 84.9%. This indicates that the friendly, polite, and responsible attitude of Community Health Center employees is able to increase public confidence in the institution and provide assurance of quality health services (10).

Data on the profile of Puskesmas "X" in Semarang City shows a decline in outpatient visits from 140.847 patients in 2023 to 109.874 patients in 2024. From October 2024 to December 2024, the number of patient visits decreased consecutively by 10.881, 10.305, and 10.200 patients. Based on the results of the Indeks Kepuasan Masyarakat (IKM) survey of Puskesmas "X" in 2024, the average patient satisfaction rate reached 86.81%, which is classified as a very good indicator. More specifically, the IKM value in September was 84.33%, while in the period from October to December, the IKM value rose to 86.76%. Thus, in 2024, Puskesmas "X" experienced a decrease in the number of outpatient visits from October to December by 376 patients, but there was an increase in the IKM value during that period by 2.43% (11).

Based on the background and existing problems, this study aims to examine patient satisfaction with health services by finding the gap between perceptions and expectations of quality dimensions, so that the elements that need to be maintained and improved by the Puskesmas "X" Community Health Center in Semarang City can be identified and the quality of its services can be further improved.

METHODS

Research Design

This study is classified as quantitative observational research with a descriptive analytical approach. Observational quantitative research aims to describe the conditions of a phenomenon systematically and factually without seeking cause-and-effect relationships (12). The purpose of this study is to find the gap between perceptions and expectations of quality dimensions, so that the elements that are maintained and improved by the “X” Community Health Center in Semarang City can be identified. In this study, data collection was carried out by distributing questionnaires to respondents, namely patients who received outpatient services. Data analysis in this study used the ServQual gap method, which is the difference between perception and expectations, referred to as the gap or service quality gap, formulated as follows:

$$GAP = \text{rata rata nilai persepsi} - \text{rata rata nilai harapan}$$

Interpretation of gap values:

1. If the gap > 0, it means that the service exceeds expectations.
2. If the gap = 0, it means that the service meets expectations.
3. If the gap < 0, it means that the service falls short of expectations. (problem)

The variables in this study use the ServQual variable, which consists of 5 dimensions, including tangibles, reliability, responsiveness, assurance, and empathy. Each dimension has 4 service attributes with the following list of service attributes:

Table 1. List of Service Attributes

Dimension ServQual	Service Attributes
Tangible	Comfortable and clean outpatient waiting room
	Modern and well-functioning medical equipment
	Neat and professional healthcare staff
	Clear service information (doctor schedules, procedures, costs)
Reliability	Outpatient services according to schedule and procedures
	Accurate diagnosis and medical treatment
	Prescribed medications are always available
	Test results (lab, referrals) are provided in a timely manner
Responsiveness	Health workers respond quickly to patients
	Officers are quick to help patients who need information
	Patient complaints are immediately followed up
	Short waiting time for outpatient services
Assurance	Health workers have adequate knowledge and skills.
	Patients feel safe when receiving medical services.
	Health workers explain medical procedures clearly.
	Administrative staff provide certainty regarding costs and procedures.
Empathy	Healthcare workers provide sincere attention to patients.
	Healthcare workers understand the specific needs of patients.
	Flexible outpatient service schedule.
	Staff are friendly and polite when serving patients.

Population and Sample

In this study, the population was obtained from the total number of outpatient visits from January to December 2024, which was 109,874 patients, divided by 12 months, resulting in an average of 9,156 patient visits, which was used as the population. Samples were taken from outpatients using accidental sampling techniques, with the Lameshow formula used to obtain a sample size of 100 respondents.

RESULTS AND DISCUSSION

Respondent Characteristics

Table 2 shows that this study involved 100 respondents, consisting of 30 men (70%) and 70 women (70%). Based on the age categories of the respondents, the largest number was in the 26-35 age range, totaling 37 people, followed by the 17-25 age range, totaling 24 people, followed by 20 respondents in the 36-45 age range, 11 respondents in the 46-55 age range, and 8 respondents in the 56-65 age range.

The majority of respondents had a high school/equivalent education totaling 50 people (50%), followed by a college education totaling 27 people (27%), a junior high school/equivalent education totaling 17 people (17%), an elementary school/equivalent education totaling 4 people (4%), and no schooling totaling 2 people (2%). Based on their main occupation, most respondents worked in the private sector totaling 31 people (31%), followed by housewives totaling 26 people (26%), students totaling 12 people (12%), entrepreneurs totaling 9 people (9%), laborers totaling 6 people (6%), civil servants/military/police totaling 6 people (6%), other occupations totaling 6 people (6%), and unemployed totaling 4 people.

Based on the purpose of the clinic visit, the majority of respondents visited the general clinic, totaling 75 people (75%), followed by the KIA clinic, totaling 8 people (8%), followed by CKG clinics with 7 people (7%), dental clinics with 7 people (7%), MTBS clinics with 2 people (2%), and elderly clinics with 1 person (1%). The majority of patients used BPJS PBI for payment, totaling 47 people (47%), followed by BPJS Non PBI, totaling 26 people (26%), then general payment, totaling 20 people (20%), and free payment totaling 7 people (7%).

Table 2. Respondent characteristics

Variable	Frequency (n)	Percentage
Gender		
Male	30	30%
Female	70	70%
Age		
17 - 25 Years Old (Late Adolescence)	24	24%
26 - 35 Years Old (Early Adulthood)	37	37%
36 - 45 Years Old (Late Adulthood)	20	20%
46 - 55 Years Old (Early Old Age)	11	11%
56 - 65 Years Old (Late Old Age)	8	8%
Highest Level of Education		
Higher Education	27	27%
High School/Equivalent	50	50%
Junior High School/Equivalent	17	17%
Elementary School/Equivalent	4	4%
No Education	2	2%
Primary Occupation		
Laborer	6	6%
Housewife	26	26%
Student/University Student	12	12%
Civil Servant/Military/Police Officer	6	6%

Private Sector Employee	31	31%
Entrepreneur	9	9%
Unemployed	4	4%
Other	6	6%
Clinic Visit		
General Clinic	75	75%
CKG	7	7%
Dental	7	7%
KIA	8	8%
Elderly clinics	1	1%
MTBS	2	2%
Payment Type		
BPJS PBI	47	47%
BPJS Non PBI	26	26%
Free	7	7%
General Payment	20	20%

Analysis Gap ServQual

Table 3. Analysis Gap ServQual

Atribut No.	Statement	Average Score		Gap Skor
		Perception	Expectations	
Tangibles				
1.	Comfortable and clean outpatient waiting room	6,39	6,65	-0.26
2.	Modern and well-functioning medical equipment	6,55	6,52	0.03
3.	Neat and professional healthcare staff	6,60	6,54	0.06
4	Clear service information (doctor schedules, procedures, costs)	6,47	6,66	-0,19
Realiability				
5	Outpatient services according to schedule and procedures	6,55	6,5	0,05
6	Accurate diagnosis and medical treatment	6,59	6,61	-0,02
7	Prescribed medications are always available	6,58	6,59	-0,01
8	Test results (lab, referrals) are provided in a timely manner	6,56	6,63	-0,07
Responsiveness				
9	Health workers respond quickly to patients	6,59	6, 62	-0,03
10	Officers are quick to help patients who need information	6,57	6,49	0.08
11	Patient complaints are immediately followed up	6.46	6.56	-0.1

12	Short waiting time for outpatient services	6.12	6.47	-0,35
Assurance				
13	Health workers have adequate knowledge and skills.	6,54	6,62	-0,08
14	Patients feel safe when receiving medical services.	6,52	6,40	0,12
15	Health workers explain medical procedures clearly.	6,53	6,6	-0,07
16	Administrative staff provide certainty regarding costs and procedures.	6,56	6,70	-0,14
Empathy				
17	Healthcare workers provide sincere attention to patients.	6,49	6,45	0,04
18	Healthcare workers understand the specific needs of patients.	6,45	6,6	-0,15
19	Flexible outpatient service schedule.	6,50	6,49	0,01
20	Staff are friendly and polite when serving patients.	6,58	6,69	-0,11

Table 3 ServQual Gap Analysis of 20 service attributes shows that attributes with positive gap scores or those that need to be maintained include the attribute “Patients feel safe when receiving medical services” with a gap score of (0.12), followed by the “Officers are quick to help patients who need information” with a gap score of (0.08), the attribute of “Neat and professional healthcare staff” with a gap score of (0.06), the attribute of “Outpatient services according to schedule and procedures” with a gap score of (0,05), the attribute of “Healthcare workers provide sincere attention to patient” with a gap score of (0.04), the attribute of the “Modern and well-functioning medical equipment” with a gap score of (0.03), and “Flexible outpatient service schedule” with a gap value of (0.01).

The analysis of each dimension that requires improvement is based on the negative gap scores, which are described as follows:

1. Tangible Dimension

Tangible refers to the provision of adequate physical infrastructure and medical equipment that can be directly felt or assessed by patients (13). In this dimension, there are two service attributes with negative gap scores. Therefore, the attributes that need to be improved in order are “Comfortable and clean outpatient waiting room” with a gap score of -0.26 and “Clear service information (doctor schedules, procedures, costs)” with a gap score of -0.19.

2. Reliability Dimension

Reliability indicates the ability of health workers to provide reliable and trustworthy services (14). In this dimension, there are three service attributes with negative gap scores, so the attributes that need to be improved in order are “Test results (lab, referrals) are provided in a timely manner” with a gap score of -0.07, “Accuracy of information provided by health center staff” with a gap score of -0.02, and “Prescribed medications are always available” with a gap score of -0.01.

3. Responsiveness Dimension

Responsiveness is the capacity of medical personnel to identify and understand the needs of patients or the community in providing fast and accurate services (13). In this dimension, there are three service attributes with negative gap scores. Therefore, the attributes that need to be improved in order are “Short waiting time for outpatient services” with a gap score of -0.35, the attribute

“Patient complaints are immediately followed up” with a gap score of -0.1, and the attribute “Health workers respond quickly to patients” with a gap score of -0.03.

4. Assurance Dimension

Assurance relates to the integrity, understanding, ethics, and trustworthy characteristics of health workers towards patients (13). In this dimension, there are three service attributes with negative gap scores. Therefore, the attributes that need to be improved in order are “Administrative staff provide certainty regarding costs and procedures.” with a gap score of -0.14, the attribute “Health workers have adequate knowledge and skills” with a gap score of -0.08, and the attribute “Health workers explain medical procedures clearly” with a gap score of -0.07.

5. Empathy Dimension

Empathy is the attitude of staff who are patient, friendly, and polite, as well as the ability to serve patients sincerely and wholeheartedly, so that patients feel valued and prioritized (13). In this dimension, there are two service attributes with negative gap scores. Therefore, the attributes that need to be improved in order are “Healthcare workers understand the specific needs of patients” with a gap score of -0.15 and the attribute “Staff are friendly and polite when serving patients.” with a gap score of -0.11.

From the Servqual gap analysis between perception and expectation, the gap with the lowest score was found in the responsiveness dimension regarding “Short waiting time for outpatient services” with a score of (-0,35). This is also in line with research at Permata Serdang Hospital, which found that the dominant factor contributing to patient dissatisfaction was the attribute of waiting time for examination (15). Meanwhile, the attribute with the highest gap score was in the assurance dimension regarding “Patients feel safe when receiving medical services.” with a score of (0,12) In a study on Patient Satisfaction Levels with the Quality of Health Services at RSUDZA Banda Aceh, the results showed that the highest score gap was also in the assurance dimension, but the distinguishing factor was the assurance attribute of “pleasant non-medical staff (nurses and midwives)” (16).

CONCLUSION

Based on the results of a study of 100 respondents at the X Community Health Center in Semarang, it can be concluded that the service attributes whose performance exceeded patient expectations were attributes 2, 3, 5, 7, 10, 14, 16, 17, and 19 (based on the positive gap score in Table 3). Meanwhile, the service attributes that need improvement in order to meet patient expectations are attributes 1, 4, 6, 8, 9, 11, 12, 13, 15, 18, and 20 (based on the negative gap score in Table 3).

This study recommends that Puskesmas X in Semarang maintain and continuously improve service quality attributes that are considered important and perform well by patients, such as outpatient services according to schedule and procedures, prescribed medications always available, modern and well-functioning medical equipment with gap values, health workers who are neat and professional in appearance, flexible outpatient service schedules, and staff who are quick to assist patients who need information. This aims to increase user satisfaction and build their loyalty to the services provided by Puskesmas “X” Semarang City.

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