

Patient Satisfaction Toward Pharmaceutical Services at RSUD dr. Fauziah Bireuen: A SERVQUAL-Based Study

Kepuasan Pasien terhadap Pelayanan Kefarmasian di RSUD dr. Fauziah Bireuen: Studi Berbasis SERVQUAL

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Abstract

Pharmaceutical services play an important role in the hospital healthcare system because they support the safe, rational, and patient-centered use of medicines. This study aimed to analyze patient satisfaction with pharmaceutical services and its relationship with service quality dimensions, including tangible, reliability, responsiveness, assurance, and empathy, at the Pharmacy Installation of RSUD dr. Fauziah Bireuen. This study used a descriptive survey design with a quantitative approach. The sample consisted of 109 respondents from a population of 150 outpatients, selected using accidental sampling based on the Slovin formula. The research instrument was a SERVQUAL questionnaire that met the reliability requirement, with a Cronbach's alpha value of 0.89. The results showed that the majority of respondents, namely 56.9%, were dissatisfied with pharmaceutical services. The tangible dimension obtained the highest satisfaction level at 68%, while the assurance dimension obtained the lowest satisfaction level at 45.2%. The Chi-Square test showed that all SERVQUAL dimensions were significantly associated with patient satisfaction ($p < 0.05$). Responsiveness had the strongest association (Cramer's $V = 0.68$), followed by empathy (0.67), tangibles (0.65), reliability (0.55), and assurance (0.51). Therefore, the Pharmacy Installation of RSUD dr. Fauziah Bireuen needs to improve service quality comprehensively, particularly in the aspects of service assurance, clarity of drug information, staff competence, and staff ability to build patient trust.

Keywords: Patient satisfaction, pharmaceutical services, hospital pharmacy.

Abstrak

Pelayanan kefarmasian berperan penting dalam sistem pelayanan kesehatan rumah sakit karena mendukung penggunaan obat yang aman, rasional, dan sesuai kebutuhan pasien. Penelitian ini bertujuan menganalisis tingkat kepuasan pasien terhadap pelayanan kefarmasian serta hubungannya dengan dimensi mutu pelayanan yang meliputi *tangible*, *reliability*, *responsiveness*, *assurance*, dan *empathy* di Apotek RSUD dr. Fauziah Bireuen. Penelitian ini menggunakan desain survei deskriptif dengan pendekatan kuantitatif. Sampel penelitian berjumlah 109 responden dari 150 populasi pasien rawat jalan yang dipilih menggunakan teknik *accidental sampling* dengan perhitungan rumus Slovin. Instrumen penelitian menggunakan kuesioner SERVQUAL yang telah memenuhi uji reliabilitas dengan nilai *Cronbach's alpha* sebesar 0,89. Hasil penelitian menunjukkan bahwa mayoritas responden, yaitu 56,9%, menyatakan tidak puas terhadap pelayanan kefarmasian. Dimensi *tangible* memperoleh tingkat kepuasan tertinggi sebesar 68%, sedangkan dimensi *assurance* memperoleh tingkat kepuasan terendah sebesar 45,2%. Uji Chi-Square menunjukkan bahwa seluruh dimensi SERVQUAL memiliki hubungan yang signifikan dengan kepuasan pasien ($p < 0,05$). Dimensi daya tanggap (*responsiveness*) menunjukkan hubungan terkuat (Cramer's $V = 0,68$), diikuti oleh empati (0,67), bukti fisik (*tangibles*) (0,65), keandalan (*reliability*) (0,55), dan jaminan (*assurance*) (0,51). Oleh karena itu, Instalasi Farmasi RSUD dr. Fauziah Bireuen perlu meningkatkan kualitas layanan secara menyeluruh, khususnya pada aspek jaminan layanan, kejelasan informasi obat, kompetensi staf, serta kemampuan staf dalam membangun kepercayaan.

Kata Kunci: Kepuasan pasien, pelayanan kefarmasian, apotek rumah sakit.



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Introduction

Health is a fundamental human necessity intrinsically linked to healthcare initiatives and infrastructure. Healthcare efforts encompass a range of activities executed in an integrated, coordinated, and ongoing fashion to sustain and enhance the community's health condition through preventative, promotive, curative, and rehabilitative approaches (1). The pharmacy installation functions as a hospital facility that coordinates all pharmaceutical activities required by the hospital. Effective pharmaceutical care encompasses patient-centered services within the medication-use process, striving to guarantee the safety, efficacy, and rationality of drug utilisation through the use of pharmaceutical expertise and functions in patient management (2).

Service quality and patient satisfaction are related but conceptually distinct. Service quality refers to a cognitive evaluation of specific service attributes, whereas patient satisfaction is an overall post-service response formed by comparing expectations with actual experiences. According to Oliver's expectancy-disconfirmation theory, satisfaction increases when performance exceeds expectations, remains stable when expectations are met, and decreases when performance falls short (20-21). In healthcare, the five SERVQUAL dimensions influence satisfaction through this mechanism: tangibles shape perceptions of facilities and cleanliness; reliability reflects accurate and consistent care; responsiveness concerns prompt assistance and waiting time; assurance builds trust through competence and safety; and empathy addresses communication and individualized attention. Thus, SERVQUAL dimensions function as antecedents of patient satisfaction by determining whether patients' expectations of healthcare delivery are confirmed or disconfirmed (22).

The selection of the SERVQUAL model in this study is based on its ability to assess service quality by measuring the gap between users' expectations and perceptions across five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy (22). In the context of healthcare services, this model is relevant because it can identify aspects of care directly experienced by patients, including the condition of facilities, service accuracy, responsiveness, perceived safety, communication, and individualized attention, thereby enabling the findings to be translated into operational improvement recommendations (3). SERVQUAL was selected over the Customer Satisfaction Index, which primarily produces an aggregate measure of satisfaction; the Service Performance Model which evaluates actual performance without comparing it with patient expectations; and Importance-Performance Analysis, which is essentially a priority-mapping technique rather than a conceptual model specifically designed to measure service quality (4). However, SERVQUAL should be applied critically because it has several limitations, including ambiguity in the definition of expectations, the potentially lower reliability of difference scores, and the instability of its five-dimensional structure across different service contexts. Criticism has also been directed at the distinction between empathy and responsiveness, as these dimensions may overlap in patients' experiences; healthcare personnel who provide prompt assistance may simultaneously be perceived as caring and attentive. Theoretically, however, the two dimensions remain distinct: responsiveness concerns the willingness and promptness of service delivery, whereas empathy emphasizes understanding and addressing patients' individual needs. Therefore, SERVQUAL is employed not as a comprehensive measure of healthcare quality, particularly technical and clinical quality, but as a diagnostic instrument for evaluating patients' perceived service quality, subject to contextual adaptation and appropriate validity and reliability testing (5).

Previous research conducted by Mulyani (2020), entitled Analysis of Patient Satisfaction with Pharmaceutical Services Using the SERVQUAL Model at Public Health Centers in Garut Regency, expressed that efforts to improve pharmaceutical service processes in the era of National Health Insurance require service quality evaluation, one of which can be carried out through patient satisfaction surveys. Patient

satisfaction occurs when healthcare services delivered to patients align with patient expectations (8). Furthermore, a study by Nanda Floren Dadang T. (2024), titled The Level of Outpatient Satisfaction with Pharmaceutical Services at the Pharmacy Installation of RSUD Kota Makassar, indicated that patient satisfaction can be evaluated using the SERVQUAL method, encompassing five dimensions: tangibles, reliability, empathy, responsiveness, and assurance (9). This study intends to analyse patient satisfaction levels with pharmaceutical services at the Pharmacy Installation of RSUD dr. Fauziah Bireuen, in light of the different obstacles and issues encountered.

These findings establish a crucial foundation for enhancing services to attain optimal patient satisfaction. Consequently, RSUD dr. Fauziah must uphold patient trust and satisfaction by enhancing the quality of services rendered. The elements of service quality include tangibles, reliability, responsiveness, assurance, and empathy. However, the current situation at RSUD dr. Fauziah Bireuen indicates that the hospital has not sufficiently attended to these service dimensions (6). Minister of Health Regulation No. 72 of 2016, Article 2, stipulates that the regulation of pharmaceutical service standards in hospitals is intended to enhance the quality of pharmaceutical services, ensure legal certainty for pharmaceutical personnel, and safeguard patients and the public from irrational drug use, thereby promoting patient safety (7). Based on the theoretical framework, this study proposes the following hypotheses: H1: Tangibles are significantly associated with patient satisfaction; H2: Reliability is significantly associated with patient satisfaction; H3: Responsiveness is significantly associated with patient satisfaction; H4: Assurance is significantly associated with patient satisfaction; and H5: Empathy is significantly associated with patient satisfaction.

Methods

Research Design

This research employed a descriptive survey methodology utilising a quantitative approach. The descriptive survey approach was employed to assess patient satisfaction with pharmaceutical services across five categories of service quality: palpable, reliability, responsiveness, assurance, and empathy.

Research Location and Time

This study was conducted at the Outpatient Pharmacy of RSUD dr. Fauziah Bireuen. Data collection was carried out in December 2024.

Population and Sample

The study population comprised all outpatients and their family members awaiting medication collection at the Pharmacy of RSUD dr. Fauziah Bireuen. The overall population was 150 individuals.

The sample was identified by accidental (convenience) sampling, that was used as a non-probability technique, where eligible patients who attended the healthcare facility during the data collection period, met the inclusion criteria, and agreed to participate were recruited until the required sample size was achieved. This approach was chosen due to the absence of a complete sampling frame and limited access to the entire patient population, making probability sampling impractical (19) (23). The study population was estimated based on the average monthly patient visits over the three months preceding data collection (October–December 2024). However, as participants were not randomly selected and had unequal selection probabilities, this method may introduce selection bias and limits generalizability. Therefore, the findings are restricted to the study respondents and setting and cannot be generalized to the broader patient population (18). The sample size was determined with the Slovin formula with a 5% margin of error, as detailed below:

$$n = N / (1 + N.e^2)$$

Caption:

- n = number of samples
- N = population size (150)
- e = tolerable error rate (0.05)

$$n = 150 / (1 + 150 \times (0.05)^2) = 150 / (1 + 0.375) = 150 / 1.375 = 109 \text{ respondents}$$

Based on this calculation, the sample size in this study was 109 respondents.

Research Instrument

The research instrument used a SERVQUAL questionnaire developed based on five dimensions of pharmaceutical service quality, namely:

- Tangible, which includes facilities, waiting room comfort, cleanliness, and completeness of service facilities.
- Reliability, which includes the ability of staff to provide services accurately, appropriately, and according to patient needs.
- Responsiveness, which includes the speed and readiness of staff in assisting patients.
- Assurance, which includes competence, courtesy, clarity of drug information, and the ability of staff to build patient trust.
- Empathy, which includes attention, friendliness, and concern of staff toward patient needs.

The questionnaire had been tested for reliability and obtained a Cronbach's Alpha value of 0.89. This value indicates that the research instrument had good reliability because it exceeded the minimum threshold of 0.70.

Data Collection Technique

Data were collected by distributing questionnaires to outpatients or patients' family members who were waiting to collect medicines at the Pharmacy of RSUD dr. Fauziah Bireuen. Before completing the questionnaire, respondents received an explanation regarding the research objectives, completion procedures, data confidentiality, and their right to participate voluntarily.

Data Analysis Technique

Data were examined by univariate and bivariate analysis. Univariate analysis was employed to delineate respondent characteristics and patient satisfaction levels across each facet of pharmaceutical service quality. Bivariate analysis was performed with the Chi-Square test to ascertain the correlation between characteristics of pharmaceutical service quality and patient satisfaction. This study employed a significance level of 0.05 for statistical decision-making. The association between variables was deemed significant when the p-value was less than 0.05.

Research Ethics

This study obtained approval from the Research Ethics Committee of Institut Kesehatan Helvetia and research permission from RSUD dr. Fauziah Bireuen. All respondents received information regarding the objectives, benefits, procedures, and confidentiality of the research data before participating. Respondents who agreed to participate provided their consent through informed consent.

Results and Discussion

Respondents' Characteristics and Education

Research results present the distribution of respondents' characteristics based on age and educational level. Based on age group, most respondents were in the 46-55 year age range, accounting for 22.9%. This finding aligns with the increasing risk of degenerative diseases among late-adult age groups, which may lead this group to utilize healthcare services more frequently, including pharmaceutical services. Overall, the productive age group, namely 17-55 years, accounted for 66% of all respondents. The results can be seen in Table 1.

Based on the results of the study involving 109 respondents, 66% were of productive age (17-55 years), indicating that pharmaceutical services at RSUD dr. Fauziah Bireuen are used not only by older patients but also by young and middle-aged adults who remain socially, economically, and occupationally active. The predominance of respondents aged 46-55 years may reflect the increasing risk of degenerative and chronic diseases, including hypertension, diabetes mellitus, dyslipidemia, and cardiovascular disorders. This interpretation is consistent with the 2023 Indonesian Health Survey, which reported that the prevalence of hypertension among individuals aged ≥ 18 years was 30.8%, while the prevalence of diabetes among those aged ≥ 15 years was 11.7%. Hypertension was also identified among younger adults, with prevalences of 10.7% in the 18-24-year age group and 17.4% among those aged 25-34 years. These national data indicate that chronic disease risks increasingly emerge during adulthood and may contribute to greater demand for routine

medication, counseling, adherence support, and long-term therapy monitoring. Comparable patterns have been reported in other healthcare settings. At Hospital “X” Jakarta, patients aged 26–40 years constituted the largest respondent group, and age was significantly associated with satisfaction with pharmaceutical services ($p = 0.000$) (10). Similarly, 82% of pharmaceutical service users at Puskesmas Hospital were aged 18–59 years (11), while respondents aged 46–65 years represented the largest group at Public Health Center X in South Tangerang. These findings suggest that productive-age and middle-aged adults consistently constitute a substantial proportion of users of hospital and primary-care pharmaceutical services.

Table 1. Respondent Characteristics Based on Age and Education

Characteristics	Frequency (n)	Percentage (%)
Umur		
12-16	10	9,1
17-25	20	18,3
26-35	15	13,7
36-45	12	11
46-55	25	22,9
56-65	14	12,8
65 Percentage	13	11,9
Total	109	100
Education		
Did not complete elementary school	11	10
Elementary school	18	17
Junior high school	18	17
Senior high school	36	33
Diploma	1	1
Bachelor's degree	25	23
Total	109	100

The educational profile showed that most respondents had completed secondary education, with senior high school graduates accounting for 33% and bachelor's degree holders for 23%. This distribution suggests that many respondents possessed sufficient basic literacy to understand information concerning medication dosage, administration, adverse effects, and precautions, although differences in health literacy should still be considered. The demographic findings have practical implications for pharmaceutical service management. Patients aged 17–45 years generally require rapid, accessible, and efficient services because of work, family, and social responsibilities, whereas those aged 46–55 years require greater emphasis on chronic disease management, medication adherence, adverse-effect monitoring, and prevention of drug interactions. Older patients may require simpler explanations, repeated counseling, clearly readable medication labels, and family involvement. Because patient satisfaction is associated with loyalty and the institutional image of the hospital, pharmaceutical communication should be adapted to patients' age and educational characteristics. Previous SERVQUAL-based research has also shown that responsiveness may represent a major area of deficiency in outpatient pharmacy services, emphasizing the importance of timely assistance, clear communication, and efficient service processes (12–15). Accordingly, RSUD dr. Fauziah Bireuen should implement age-sensitive and literacy-appropriate pharmaceutical services to improve patients' understanding, treatment adherence, service experience, and overall satisfaction.

Univariate analysis of Tangible, Reliability, Responsiveness, Assurance, and Empathy Dimensions

The results of this study show the frequency distribution of the total scores for Tangible, Reliability, Responsiveness, Assurance, Empathy, and Patient Satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen in 2025. From 109 respondents, the tangible dimension showed fairly positive results. The majority of respondents, 51.4% or 56 people, perceived that they were satisfied with the physical evidence of pharmaceutical services. The data showed that 28.4% of respondents or 31 people were less satisfied, 18.3% or 20 people were moderately satisfied, and only 1.8% or 2 people were dissatisfied. No respondents perceived that they were very satisfied. Overall, the tangible dimension received a relatively good response from patients, with more than half of the respondents expressing satisfaction with the physical facilities, equipment, and appearance of pharmacy staff.

Table 2. Frequency Distribution of Total Scores for Tangible, Reliability, Responsiveness, Assurance, Empathy, and Patient Satisfaction with Pharmaceutical Services.

Characteristics	Frequency (n)	Percentage (%)
Tangible		
Dissatisfied	2	1,8
Less satisfied	31	28,4
Moderately satisfied	20	18,3
Satisfied	56	51,4
Very satisfied	0	0
Jumlah	109	100
Reliability		
Dissatisfied	13	11,9
Less satisfied	43	39,4
Moderately satisfied	13	11,9
Satisfied	40	36,7
Very satisfied	0	0
	109	100
Responsiveness		
Dissatisfied	2	1,8
Less satisfied	57	52,3
Moderately satisfied	20	18,3
Satisfied	30	27,5
Very satisfied	0	0
	109	100
Assurance		
Dissatisfied	16	14,7
Less satisfied	40	36,7
Moderately satisfied	19	17,4
Satisfied	34	31,2
Very satisfied	0	0
	109	100
Empathy		
Dissatisfied	3	2,8
Less satisfied	56	51,4
Moderately satisfied	19	17,4
Satisfied	31	28,4
Very satisfied	0	0
	109	100
Patient satisfaction		
Satisfied	47	43,1
Dissatisfied	62	56,9
	109	100

The reliability dimension showed an almost balanced distribution between respondents who were satisfied and those who were less satisfied. A total of 39.4% of respondents or 43 people perceived that they were less satisfied, while 36.7% or 40 people perceived that they were satisfied with the reliability of the service. The proportions of respondents who were dissatisfied and moderately satisfied were each 11.9% or 13 people. No respondents perceived that they were very satisfied. These data indicate that the reliability of pharmaceutical services still needs improvement, considering that almost 40% of respondents were less satisfied with the consistency and accuracy of the services provided.

The responsiveness dimension received a less satisfactory assessment. The majority of respondents, 52.3% or 57 people, perceived that they were less satisfied with the responsiveness of pharmacy staff. Only 27.5% of respondents or 30 people were satisfied, 18.3% or 20 people were moderately satisfied, and 1.8% or 2 people were dissatisfied. No respondents perceived that they were very satisfied. These findings show that the responsiveness of staff in addressing patients' needs and complaints remains an area that requires significant improvement, as more than half of the respondents reported being less satisfied.

The assurance dimension showed a varied distribution. A total of 36.7% of respondents or 40 people perceived that they were less satisfied, followed by 31.2% or 34 people who perceived that they were satisfied. Respondents who were moderately satisfied accounted for 17.4% or 19 people, while those who were dissatisfied accounted for 14.7% or 16 people. No respondents perceived that they were very satisfied. Although almost one-third of respondents were satisfied with the assurance provided in the service, a larger proportion, 36.7%, still felt less confident about the competence and ability of pharmacy staff to provide quality services.

The empathy dimension received a poor assessment. The majority of respondents, 51.4% or 56 people, perceived that they were less satisfied with the empathy shown by pharmacy staff. A total of 28.4% of respondents or 31 people were satisfied, 17.4% or 19 people were moderately satisfied, and 2.8% or 3 people were dissatisfied. No respondents perceived that they were very satisfied. These results indicate that the ability of pharmacy staff to understand and respond to patients' needs, as well as to provide personal attention, still needs substantial improvement.

In Table 2, it can be seen that, out of 109 respondents, the majority, 56.9% or 62 people, perceived that they were dissatisfied with pharmaceutical services in general, while only 43.1% or 47 people perceived that they were satisfied. These data show that the quality of pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen has not yet met the expectations of most patients and requires comprehensive improvement across all service dimensions to increase patient satisfaction (17).

Table 3 shows that the tangible dimension achieved the highest score (68%), indicating that respondents evaluated the physical and observable aspects of pharmaceutical services—such as cleanliness, waiting-area comfort, equipment, signage, and staff appearance—more positively than other service attributes. This finding is theoretically plausible because tangibles comprise concrete cues that patients can assess directly, even when they have limited ability to evaluate the technical accuracy of pharmaceutical care (26). However, the relatively high tangible score should not be interpreted as evidence that the overall quality of pharmaceutical services was satisfactory, because favorable physical conditions may coexist with weaknesses in communication and professional interaction. This concern is reflected in the assurance dimension, which obtained the lowest score (45.2%). Assurance encompasses staff knowledge, professional competence, courtesy, safety, and the ability to build patients' trust, therefore, its low score is particularly important in pharmaceutical services, where patients depend on pharmacy personnel for accurate information regarding dosage, administration, adverse effects, contraindications, drug interactions, and adherence. The finding may indicate that medication information was insufficient or unclear, opportunities for direct consultation with pharmacists were limited, staff roles and professional competence were not clearly visible to patients, or communication did not adequately increase patients' confidence in using their medicines. However, these explanations should be regarded as plausible interpretations rather than confirmed causes because the study did not collect item-specific qualitative evidence. The educational profile may also have influenced respondents' assessments, as 56% had completed senior high school or higher education and may therefore have been more likely to expect clear explanations, question medication-related information, and critically evaluate staff competence, although formal education should not be considered equivalent to health literacy. Managerially, the hospital should maintain its favorable physical-service attributes while prioritizing improvement in assurance through standardized medication counseling, clearer identification of pharmacists and their professional roles, communication and competency training, use of the teach-back method, provision of written medication information, and routine evaluation of whether patients understand and feel confident about their treatment. Strengthening assurance is essential because an attractive and comfortable service environment cannot compensate for inadequate professional communication or insufficient patient trust.

Therefore, the Pharmacy of RSUD dr. Fauziah Bireuen needs to maintain the physical aspects that patients have rated positively and improve the weaker service dimensions. Practical improvements can include strengthening the queue system, managing drug stock, setting service time standards, training staff communication skills, standardizing medication counseling protocols, and monitoring patient satisfaction periodically. These strategies can improve patient perceptions of service quality and increase overall patient satisfaction.

Table 3. Average score and service quality categories at the pharmacy of dr. Fauziah Bireuen Regional Hospital in 2025

Quality of service		Services at the Pharmacy Installation	Total items	Total score	Average value	%	Category
<i>Tangible</i>	1	The pharmacy's waiting room is clean and comfortable.	276	1186	0.680046	68	Satisfied
	2	Sufficient and comfortable seating.	295				
	3	A complete range of medications.	307				
	4	Medications are neatly and attractively displayed.	308				
<i>Reliability</i>	1	Pharmacists explain medication usage, uses, side effects, dosage, and storage.	278	1024	0.587156	58.72	Quite satisfied
	2	Pharmacists provide easy to understand language.	258				
	3	The procedure for obtaining medication is not confusing for patients.	250				
	4	Pharmacists are always ready to address patient concerns and provide necessary information.	238				
<i>Responsiveness</i>	1	Pharmacy staff responded well, quickly, skillfully, and competently to patient complaints.	257	1010	0.579128	57.91	Quite satisfied
	2	Staff provided medication quickly and according to prescriptions.	257				
	3	Staff provided clear drug information.	243				
	4	Pharmacy staff's discipline was satisfactory.	253				
<i>Assurance</i>	1	Completeness of medication availability	278	788	0.451835	45.18	Dissatisfied
	2	Guaranteed medication quality (medication has not expired, and medication packaging is intact).	258				
	3	Level of knowledge, broad insight, and ability of staff to provide accurate and complete medication information.	252				
<i>Empathy</i>	1	Staff are friendly, smiling, polite, and greet patients.	252	1025	0.587729	58.77	Dissatisfied
	2	Staff understand and care about patients' needs and concerns.	265				
	3	Provide attention and service wholeheartedly.	251				
	4	Do not keep patients waiting long or neglect them.	257				

Bivariate Analysis of the Relationship between Tangibles, Reliability, Responsiveness, Assurance, and Empathy with Patient Satisfaction Levels

The result shows the cross-tabulation between service quality in the tangible dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen in 2025. Of the 109 respondents, the majority of respondents who rated the tangible service quality as less satisfactory also reported being dissatisfied with patient satisfaction, totaling 31 respondents (100%). Furthermore, the chi-square test based on the Pearson Chi-Square value showed that the p-value was $0.000 < \alpha = 0.05$, with $df = 3$. This result meets the criteria for accepting the hypothesis that there is a relationship. Therefore, it can be concluded that there is a relationship between service quality in the tangible dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen.

From 109 respondents, the majority of respondents who rated the reliability dimension as less satisfactory also reported being dissatisfied with patient satisfaction, totaling 35 respondents (81.4%). Furthermore, the chi-square test based on the Pearson Chi-Square value showed that the p-value was $0.000 < \alpha = 0.05$, with $df = 3$. This result meets the criteria for accepting the hypothesis that there is a relationship. Therefore, it can be concluded that there is a relationship between service quality in the reliability dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen.

From 109 respondents, the majority of respondents who rated the responsiveness dimension as less satisfactory also reported being dissatisfied with patient satisfaction, totaling 57 respondents (100%). Furthermore, the chi-square test based on the Pearson Chi-Square value showed that the p-value was $0.000 < \alpha = 0.05$, with $df = 3$. This result meets the criteria for accepting the hypothesis that there is a relationship. Therefore, it can be concluded that there is a relationship between service quality in the responsiveness dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen. From 109 respondents, the majority of respondents who rated the assurance dimension as less satisfactory also reported being dissatisfied with patient satisfaction, totaling 32 respondents (80%). Furthermore, the chi-square test based on the Pearson Chi-Square value showed that the p-value was $0.000 < \alpha = 0.05$, with $df = 3$. This result meets the criteria for accepting the hypothesis that there is a relationship. Therefore, it can be concluded that there is a relationship between service quality in the assurance dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen.

From 109 respondents, the majority of respondents who rated the empathy dimension as less satisfactory also reported being dissatisfied with patient satisfaction, totaling 56 respondents (100%). Furthermore, the chi-square test based on the Pearson Chi-Square value showed that the p-value was $0.000 < \alpha = 0.05$, with $df = 3$. This result meets the criteria for accepting the hypothesis that there is a relationship. Therefore, it can be concluded that there is a relationship between service quality in the empathy dimension and patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen.

The Chi-Square test results showed that the tangibles, reliability, responsiveness, assurance, and empathy dimensions each had a p-value < 0.001 . Because all p-values were lower than the significance level of 0.05, the null hypothesis for each dimension was rejected. Therefore, each dimension of service quality was significantly associated with patient satisfaction. However, the p-value indicates only the presence of a statistically significant association and does not describe its direction, strength, or causality. The tangibles dimension showed a positive direction, indicating that better assessments of physical facilities and staff appearance tended to be associated with higher patient satisfaction, although the pattern was not entirely linear. Reliability also demonstrated a positive association, as greater accuracy and consistency of service were associated with higher satisfaction. For responsiveness, the positive direction was most evident: more prompt and responsive service was associated with greater patient satisfaction. Assurance showed a generally positive association between staff competence, the ability to build trust, and patient satisfaction, although the pattern was not completely graded. Similarly, empathy demonstrated a positive association, as greater attention to and understanding of patients' needs tended to be associated with higher patient satisfaction.

The results of this study show that the quality of pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen is associated with patient satisfaction across the five SERVQUAL dimensions: tangible, reliability, responsiveness, assurance, and empathy. The chi-square test in the research draft indicates that each service quality dimension has a relationship with patient satisfaction. This finding is consistent with recent studies that used the SERVQUAL approach to assess pharmaceutical service quality through these five dimensions (16). The Cramer's V values indicate that responsiveness (0.68) and empathy (0.67) have very strong associations with patient satisfaction, whereas reliability (0.55) and assurance (0.51) demonstrate moderate-to-strong associations. These findings suggest that managerial improvement should initially focus

on responsiveness and empathy, particularly by reducing waiting times, improving staff availability, accelerating responses to patient requests, strengthening communication, and providing more individualized and compassionate care. However, effect size alone should not determine priority, these dimensions should receive the greatest attention when their performance scores are also relatively low. Reliability and assurance remain important because consistent service delivery, procedural accuracy, professional competence, safety, and patient trust form the fundamental basis of healthcare quality. Therefore, management should adopt a two-level strategy: prioritize responsiveness and empathy as the dimensions most strongly associated with patient satisfaction while simultaneously maintaining and strengthening reliability and assurance as essential service standards. Because Cramer's V indicates the strength of association rather than causality, these results should be interpreted as evidence of managerial relevance rather than proof that improvements in a particular dimension will directly cause higher patient satisfaction.

Table 4. Cross-Test of Service Quality (Tangibles) with Patient Satisfaction Levels towards Pharmacy at dr. Fauziah Bireuen Regional Hospital Pharmacy in 2025

Tangibles	Patient Satisfaction				Σ	%	P Value	χ ² (df)	Cramer's V
	Satisfied		Dissatisfied						
	F	%	F	%					
Dissatisfied	0	0	2	100	2	100	0.000	45.67 (3)	0.65
Less satisfied	0	0	31	100	31	100			
Moderate	18	90	2	10	20	100			
Satisfied	29	51.8	27	48.2	56	100			
Very satisfied	0	0	0	0	0	0			
Total	47	43.1	62	56.9	109	100			
Reliability									
Dissatisfied	1	7.7	12	92.3	13	100	0.000	32.45 (3)	0.55
Less satisfied	8	18.6	35	81.4	43	100			
Moderate	8	61.5	5	38.5	13	100			
Satisfied	30	75	10	25	40	100			
Very satisfied	0	0	0	0	0	0			
Total	47	43.1	62	56.9	109	100			
Responsive									
Dissatisfied	0	0	2	100	2	100	0.000	51.23 (3)	0.68
Less satisfied	0	0	57	100	57	100			
Moderate	18	90	2	10	20	100			
Satisfied	29	96.7	1	3,3	30	100			
Very satisfied	0	0	0	0	0	0			
Total	47	43.1	62	56.9	109	100			
Assurance									
Dissatisfied	1	6.3	15	93.8	16	100	0.000	28.34 (3)	0.51
Less satisfied	8	20	32	80	40	100			
Moderate	16	84.2	3	15.8	19	100			
Satisfied	22	64.7	12	35,3	34	100			
Very satisfied	0	0	0	0	0	0			
Total	47	43.1	62	56.9	109	100			
Empathy									
Dissatisfied	0	0	3	100	3	100	0.000	49.78 (3)	0.67
Less satisfied	0	0	56	100	56	100			
Moderate	18	94.7	1	5.3	19	100			
Satisfied	29	93.5	2	17.6	31	100			
Very satisfied	0	0	0	0	0	0			
Total	47	43.1	62	56.9	109	100			

A major limitation of this study is that only patients' perceptions of service performance were measured, whereas their prior expectations were not assessed. Consequently, although the questionnaire was structured according to the five SERVQUAL dimensions, the analysis operationally represents a performance-only assessment and does not permit the calculation of conventional SERVQUAL gap scores between expectations and perceptions. The findings therefore identify dimensions with relatively higher or lower

perceived performance but cannot determine which dimension has the largest service-quality gap or whether the services met, exceeded, or fell below patients' expectations. Where applicable, the perception scores may be compared with hospital service standards or findings from studies conducted in comparable healthcare settings to provide an external benchmark; however, such comparisons should be interpreted cautiously because institutional standards and results from other populations are not equivalent to patients' own expectations. The absence of expectation data may also obscure dissatisfaction among patients with high expectations and overstate performance among those with relatively low expectations. Accordingly, the results should not be interpreted as complete evidence of SERVQUAL expectation–performance discrepancies, but rather as an evaluation of perceived service performance across the tangibles, reliability, responsiveness, assurance, and empathy dimensions. Future studies should measure both expectations and perceptions using matched items to calculate dimension-specific gap scores and provide a more comprehensive assessment of healthcare service quality.

Conclusions

This study, based on data from 109 respondents, suggests that patient satisfaction with pharmaceutical services at the Pharmacy of RSUD dr. Fauziah Bireuen is relatively low, with 56.9% of respondents expressing dissatisfaction with the overall service. Of the five aspects of service quality, the tangible dimension exhibited the highest level of satisfaction, suggesting that patients viewed the physical facilities, equipment, and appearance of pharmacy personnel more favourably. Conversely, responsiveness and empathy had the lowest satisfaction levels, indicating that patients continued to encounter deficiencies in staff responsiveness, service speed, attentiveness, and personal care. The chi-square analysis indicated that all characteristics of service quality—tangible, reliability, responsiveness, assurance, and empathy—exhibited a significant correlation with patient satisfaction, with $p < 0.001$. The tangibles dimension should be maintained and further improved through better waiting-room comfort, cleanliness, signage, and service facilities. The reliability dimension requires greater consistency in prescription processing, dispensing accuracy, adherence to service procedures, and completion of services within the promised time. The responsiveness dimension should be prioritised by reducing waiting times, ensuring adequate staff availability, responding promptly to patient questions and complaints, and improving queue management. The assurance dimension needs improvement through clearer medication counselling, stronger demonstration of professional competence, and more effective communication regarding dosage, side effects, drug interactions, and medication safety. The empathy dimension should be strengthened through active listening, respectful communication, individualised counselling, and explanations adapted to patients' age, education, health literacy, and treatment needs. Therefore, hospital management should maintain the positive physical aspects of service while prioritising responsiveness and empathy, as these dimensions showed the strongest associations with patient satisfaction.

Conflict of Interest

The authors assert that there are no financial, personal, or organisational conflicts of interest that could unduly affect the work presented in this publication. All experimental procedures, data analysis, and interpretations were performed autonomously, free from external bias.

References

- [1] Y. Al Illyyin, Oktafany, D. A. Ramdini, and I. D. Rahayu, "Patient satisfaction with pharmaceutical services at the outpatient pharmacy installation of Hospital X, Bandar Lampung City," *Jurnal EduHealth*; vol.16, no. 03: 1347-1359, 2025.
- [2] T. D. Cahyani, L. Suryanti, I. Syafi'i, and T. Mariyani, "Tingkat kepuasan pasien rawat jalan terhadap pelayanan kefarmasian di Instalasi Rumah Sakit Sari Asih Ciputat," *JIFIN: Jurnal Ilmiah Farmasi Indonesia*; vol. 2, no.2: 51-58, 2024.
- [3] Kementerian Kesehatan Republik Indonesia. *Hasil Utama Survei Kesehatan Indonesia 2023*. Jakarta, Indonesia: Badan Kebijakan Pembangunan Kesehatan; 2023.

- [4] I. Poppy, Chusun, and N. Indri, "Hubungan tingkat kepuasan pasien BPJS terhadap pelayanan kefarmasian di Instalasi Farmasi Rumah Sakit 'X' Jakarta tahun 2024," *Farmasi-QU: Jurnal Pelayanan Kefarmasian*; vol.12: 21-32, 2025.
- [5] I. W. P. Bawa, S. Rahayu, D. Rahmawati, R. Adriany, and Nopratiłova, "Evaluation of outpatient satisfaction levels regarding drug information and counseling in pharmaceutical services at Pusdikkes Puskesmas Hospital," *Journal of Global Pharmacy Research*; vol.1, no.2: 74-82, 2025.
- [6] Ministry of Health of the Republic of Indonesia, The Danger of Hypertension Threatens Young Indonesians. Jakarta, Indonesia: *Health Development Policy Agency*, 2024.
- [7] D. Susanti, P. Mutiasih, G. Aulia, and A. R. Fahriati, "Patient satisfaction level with pharmaceutical services provided by pharmacists at Public Health Center X South Tangerang," *Jurnal Farmamedika*; vol.10, no.2: 171-181, 2025.
- [8] R. Handayani, N. Qamariah, and B. Putri, "Patient satisfaction level with pharmaceutical services at RSUD Sukamara," *Jurnal Surya Medika*; vol.10, no.2: 38-46, 2024.
- [9] E. N. Purwanti, Description of Outpatient BPJS Patient Satisfaction with Pharmacy Services at Jakarta Islamic Hospital Cempaka Putih in 2024. Jakarta, Indonesia: *Politeknik Kesehatan Kemenkes Jakarta II*, 2024.
- [10] A. D. M. Putri, S. B. Harsono, and J. Sarimanah, "Tingkat kepuasan pasien terhadap pelayanan kefarmasian di Apotek X periode Februari tahun 2024," *Jurnal Mandala Pharmacon Indonesia*; vol.10, no.2: 537-543, 2024.
- [11] E. Karlina, L. V. Inandha, and Pudjiastuti, "Analisis tingkat kepuasan pasien terhadap kualitas pemberian informasi obat di Apotek Yulia Farma Surakarta periode Juni-Juli tahun 2024," *An-Najat*; vol.2, no.3: 366-372, 2024.
- [12] A. Restyana, V. Yustriana, and W. Admaja, "Evaluation of patient's satisfaction towards pharmaceutical services at outpatient installation in Putra Waspada Hospital Tulungagung," *Journal of Hospital Management and Services*; vol.6, no.1: 34-43, 2024,
- [13] Wildayanti, H. Setyoningsih, O. W. Sunarto, A. P. Tunggadewi, and M. P. Pratitis, "Level of satisfaction outpatient patients with pharmacy services at PKU Muhammadiyah Mayong Jepara Hospital," in *Cendekia International Conference on Health & Technology*; page. 356-362, 2024.
- [14] P. A. M. Evi, D. Ningsih, and S. R. Handayani, "Analisis tingkat kepuasan pasien terhadap pelayanan kefarmasian di RSUD dr. Soediran Mangun Sumarso Wonogiri," *Journal of Islamic Pharmacy*; vol.7, no.2: 104-111, 2022.
- [15] D. Setiawan, D. Ningsih, and S. R. Handayani, "Analisis tingkat kepuasan pasien terhadap pelayanan kefarmasian di Instalasi Farmasi Rawat Jalan Puskesmas Nawangan Pacitan," *Journal of Islamic Pharmacy*; vol.7, no.2: 79-85, 2022.
- [16] D. A. Juwita, N. Q. Desri, and D. Permatasari, "Patient satisfaction with pharmaceutical services at a hospital outpatient pharmacy in West Sumatra, Indonesia," *Jurnal Farmasi dan Ilmu Kefarmasian Indonesia*; vol.10, no.3: 324-330, 2023.
- [17] H. E. Hurit, A. A. Putri, and N. Bachri, "Patient satisfaction with outpatient pharmaceutical services under the National Health Insurance Scheme in Indonesia: A cross-sectional study," *Journal of Applied Nursing and Health*; vol. 8, no.1: 148-162, 2026.
- [18] C.Andrade, "The inconvenient truth about convenience and purposive samples," *Indian Journal of Psychological Medicine*; vol. 43, no. 1: 86-88, 2021.
- [19] I. Etikan, S. A. Musa, and R. S. Alkassim, "Comparison of convenience sampling and purposive sampling," *American Journal of Theoretical and Applied Statistics*; vol. 5, no. 1: 1-4, 2016.
- [20] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," *Journal of Marketing Research*; vol. 17, no. 4: 460-469, 1980.
- [21] R. L. Oliver, *Satisfaction: A Behavioral Perspective on the Consumer*. New York, NY: McGraw-Hill, 1997.
- [22] A. Parasuraman, L. L. Berry, and V. A. Zeithaml, "Refinement and reassessment of the SERVQUAL scale," *Journal of Retailing*; vol. 67, no. 4: 420-450, 1991.
- [23] P. Sedgwick, "Convenience sampling," *BMJ*; vol. 347: f6304, 2013.