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AN EVALUATION OF PATIENT SATISFACTION WITH INPATIENT SERVICES AT UPTD COMMUNITY HEALTH CENTER OF MUMBULSARI, JEMBER REGENCY

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ABSTRACT

Introduction*: Patient satisfaction is a crucial indicator of healthcare quality, serving as a benchmark for evaluating service performance in primary care institutions. This study examines how SERVQUAL dimensions affect inpatient satisfaction at UPTD Community Health Centers, Mumbulsari, Jember.*

Methods: *Data were gathered once within a predetermined time frame from patients who had received inpatient care during the preceding three months using a cross-sectional, quantitative strategy. Ninety respondents made up the sample, which was chosen using a combination of purposive and incidental sampling methods and calculated using Ferdinand's formula. The five SERVQUAL dimensions were measured using a standardized questionnaire with a five-point Likert scale. SPSS-supported multiple linear regression was used to examine the data.*

Results: *The findings showed that tangibles, responsiveness, empathy, and assurance all significantly and favorably impacted patient satisfaction, with assurance being the best predictor. Unexpectedly, there was a strong negative correlation between reliability and satisfaction, meaning that as reliability increased, patient satisfaction decreased. This result may indicate problems with measurement validity or reflect a mismatch with patient expectations. With an Adjusted R2 of 0.819, the regression model showed strong explanatory power, indicating that aspects of service quality had an important impact on patient satisfaction.*

Conclusion and suggestion: *It is concluded that improving assurance, responsiveness, empathy, and tangibles should be prioritized in service delivery, while the negative reliability effect requires further investigation to refine measurement tools or manage patient expectations. These findings have practical implications for enhancing primary healthcare management, particularly in strengthening staff competence, service responsiveness, and facility standards to increase overall patient trust and satisfaction.*

Keywords: *Inpatient Care, Patient Satisfaction, Public Health Center, SERVQUAL*

INTRODUCTION

Primary health care services constitute the fundamental foundation of the national health system, particularly in developing countries that continue to face challenges in ensuring equitable access to healthcare services (WHO, 2023). Community Health Centers (Puskesmas), as first-level health facilities (FKTP), play a strategic role in providing promotive, preventive, curative, and rehabilitative services that meet the basic needs of the population (Gálvez et al., 2024). In the context of rural communities, Community Health Centers (Puskesmas) serve as the frontline providers of basic services, including inpatient care, for patients with limited access to hospitals. (Bataev et al., 2024). The importance of service quality is further reinforced by the three-year trend of the Community Satisfaction Index (IKM) recorded across several Community Health Centers in Jember Regency, including those in the Mumbulsari area. The data reveal fluctuations in satisfaction levels, indicating instability in service quality. In 2022, the average IKM reached 82.14 (good category); in 2023 it declined to 79.32 (fair category); and in 2024 it increased again to 84.27 (good category) (IKM, 2022-2024). Consequently, patient satisfaction emerges as a critical indicator for assessing the performance of Puskesmas as FKTP and plays a decisive role in ensuring the sustained utilization of primary healthcare services (Milosavljević et al., 2024).

Customer satisfaction in healthcare is usually described as the emotional reaction that results when patients assess their initial goals for healthcare services against their actual experiences (Azhar, 2020; Dimitrios, 2021; Ali et al., 2024). Additionally, the assessment of patient happiness affects public trust in healthcare providers more broadly and socially than just on an individual basis. Previous research has consistently demonstrated the strong correlation between patient satisfaction and long-term engagement, loyalty, and positive referrals all of which can help draw in new clients (Yağar et al., 2025). Since inpatient amenities at community wellness centers necessitate ongoing communication between medical staff, patients, and supporting facilities, client happiness becomes more important in this setting. (Kumar et al., 2023). Therefore, gauging inpatient satisfaction with services is an important technique for evaluating the broad caliber of primary healthcare delivery (Parasuraman et al., 1985).

The quality of healthcare services is essentially defined as the gap between what patients expect and what they actually experience (A'aqoulah et al., 2022). The SERVQUAL model, introduced by Parasuraman et al. (1988), conceptualizes service quality across five dimensions: reliability, responsiveness, assurance, empathy, and tangibles (Jonkisz et al., 2022; Prakash, 2024). These dimensions provide a structured and comprehensive framework for evaluating healthcare services. In the case of inpatient care at Puskesmas, the SERVQUAL model holds strong relevance, as it encompasses both the direct interpersonal interactions between healthcare providers and patients as well as the adequacy of physical facilities (Safitri & Siti Ambarwati, 2024). When all five dimensions are consistently delivered, patient satisfaction increases, which in turn strengthens public confidence in Puskesmas as a reliable first-level healthcare provider (FKTP) within local communities (Armiyanti et al., 2024).

Nevertheless, inpatient services at Puskesmas often face challenges that undermine patient satisfaction. According to reports from the Jember District Health Office limited numbers of medical personnel frequently result in treatment delays (Andini et al., 2023),. In addition, issues such as insufficient cleanliness in inpatient rooms and waiting areas stemming from a lack of cleaning staff are common patient complaints (AJN, American Journal of Nursing, 2022). Supporting facilities are often inadequate, which further reduces patient comfort. Moreover, shortcomings in communication and empathy from healthcare providers negatively shape patients' perceptions of service quality (Gálvez et al., 2024; Lin et al., 2024). These issues underscore the importance of systematically evaluating patient satisfaction in rural Puskesmas settings to identify service gaps and implement targeted improvements.

Several empirical research have investigated the relationship between service quality and patient happiness in healthcare. For example, Wahyuni discovered that nurse care had a significant influence on inpatient satisfaction at Puskesmas Bantur. (Wahyuni et al., 2024). Similarly, Reported a significant positive effect of service quality on patient satisfaction (Mabini Jr. et al., 2024). However, conflicting findings found that service quality had no significant impact on patient satisfaction (Armiyanti et al., 2024). These discrepancies show that the relationship between service quality and patient satisfaction is context-dependent, impacted by factors such as location, available facilities, and patient characteristics (A'aqoulah et al., 2022; Armiyanti et al., 2024). Consequently, more systematic

and comprehensive research is required to clarify this relationship, particularly in the context of FKTP (Aryani et al., 2024).

The case of UPTD Community Health Centers Mumbulsari illustrates the urgency of conducting an in-depth study on the quality of inpatient services. Faced with limited human resources and inadequate facilities, this Community Health Centers struggles to maintain optimal service quality. Patient complaints concerning treatment delays, substandard cleanliness, and insufficient communication from healthcare staff reveal a clear gap between expectations and service realities. If these problems remain unresolved, they may erode public trust in Puskesmas as a primary healthcare provider. Therefore, evaluating patient satisfaction is not only essential but also strategic for improving healthcare quality and strengthening managerial practices at Community Health Centers Mumbulsari in Jember District.

LITERATURE REVIEW

Research on patient satisfaction in community health centers (Community health centers) has been widely conducted using diverse methodological approaches, although the focus and scope remain varied. Using a descriptive correlational method and an analytic cross-sectional survey, we examined the relationship between nursing services and patient satisfaction in hospital settings at community health clinics in Bantur. (Wahyuni et al., 2024). Their findings highlighted the crucial role of nursing staff as the frontline of inpatient care, though the study was limited to nursing aspects alone (Musy et al., 2021). Similarly, employed a quantitative descriptive approach to analyze service quality and its effect on inpatient satisfaction but did not explicitly differentiate SERVQUAL dimensions (Jonkisz et al., 2022; Han, 2023; Prakash, 2024). Both studies suggest that nursing care and general service quality affect patient satisfaction; however, they do not provide a comprehensive analysis of inpatient services using systematic service quality dimensions, leaving a methodological gap in mapping the specific constructs shaping inpatient care at Community health centers (Kumar et al., 2023; Maisarah et al., 2024; Safitri & Siti Ambarwati, 2024).

In line with these findings, Al Abbas et al evaluated the link between service quality and patient satisfaction in inpatient care at Community health centers using an analytic questionnaire with a cross-sectional methodology (Alabbas et al., 2024). Their study remained broad, assessing service quality in general without distinguishing the specific dimensions influencing patient satisfaction (Ali et al., 2024). Likewise, explored service quality and patient satisfaction in inpatient care using a descriptive quantitative method but similarly did not differentiate SERVQUAL dimensions (Jonkisz et al., 2021). Emphasized the influence of nursing services on inpatient satisfaction, focusing only on nursing aspects rather than the overall spectrum of care (Agostinho et al., 2023). Collectively, these studies reveal a tendency toward partial assessments of service quality, lacking systematic integration of all service dimensions, and therefore fail to provide a comprehensive picture of inpatient care quality in Community health centers (Harahap et al., 2022; Agostinho et al., 2023; Mabini Jr. et al., 2024; Safitri & Siti Ambarwati, 2024). This underscores the need for research adopting a more structured and multidimensional approach.

Some scholars have attempted to integrate the SERVQUAL approach into patient satisfaction measurement. For example, Prakash conducted an analytic survey explicitly applying SERVQUAL dimensions to assess inpatient satisfaction (Prakash, 2024). This study offered valuable contributions by separating service quality dimensions as indicators of satisfaction; however, the scope was still limited to a particular context, thus constraining the generalizability of the findings (Safitri & Siti Ambarwati, 2024). Kumar et al also explored the impact of healthcare services on patient satisfaction in rural areas, although their focus was broader, not specifically addressing inpatient care but healthcare services in general (Kumar et al., 2023). These studies indicate that while the SERVQUAL model has begun to be applied in patient satisfaction research, its systematic utilization in the context of Community health centers inpatient services remains scarce, especially in rural settings. This opens opportunities for more targeted investigations.

More recent studies reveal variations in methodology and study settings. employed a qualitative approach to analyze inpatient satisfaction at Community health centers, emphasizing service dimensions as the basis of analysis (Vieira et al., 2023). In contrast, Utami et al. (2024) examined the influence of service quality on patient

satisfaction at Community health centers Cipanas Garut using simple linear regression, but their findings indicated that service quality did not significantly affect satisfaction (Utami et al., 2024). This result diverged from the majority of previous studies, suggesting that other factors beyond service quality may shape satisfaction. Hartati (2023) evaluated inpatient services using patient perceptions with the SERVQUAL model, yet the study was conducted in a type C hospital rather than a Community health centers . Meanwhile, utilized a quantitative cross-sectional approach to examine the relationship between service quality and inpatient satisfaction (Jonkisz et al., 2022; Han, 2023). Taken together, these studies demonstrate a diversity of findings but also highlight that Community health centers as primary healthcare providers remain underexplored within systematic SERVQUAL-based evaluations.

Based on the review of prior studies, it can be concluded that most research has focused either on general Community health centers services or hospital contexts, with limited attention given to inpatient services in Community health centers . Additionally, many studies did not fully employ the SERVQUAL framework or concentrated only on specific aspects such as nursing services. Consequently, the positioning of this study lies in addressing this gap by evaluating inpatient services in Community health centers through the comprehensive application of the five SERVQUAL dimensions: reliability, responsiveness, assurance, empathy, and tangibles. The novelty of this research rests in its specific focus on inpatient services at Community health centers in Jember, employing a systematic SERVQUAL-based approach to provide new insights into enhancing primary healthcare service quality from both academic and practical perspectives.

RESEARCH METHODS

This study uses a quantitative research design and the cross-sectional technique (Adil et al., 2023; Darmawan et al., 2024). The sectional approach was chosen due to the coincidence with the purpose of the study, namely, to capture the association between the quality of inpatient treatments and patient satisfaction at a specific point in time without extended involvement.. This approach collects data only once during the allocated research period, resulting in an accurate snapshot of inpatient experiences at the Mumbulsari Regional Health Centers. The quantitative method was considered appropriate because the variables in this study were operationalized into measurable indicators that may be rated by a Likert-scale questionnaire (Dombi & Jónás, 2021). This method enables a systematic and objective analysis of the relationship between service quality and patient satisfaction, thereby strengthening the empirical validity of the findings.

The proportion of participants in this study was determined using Ferdinand's (2006) method, which suggests a minimum of five times and a maximum of ten times the number of indicators. This study used 18 indicators from the SERVQUAL model, requiring a minimum sample size of 5 x 18 = 90 respondents (Balaka, 2022; Darmawan et al., 2024). The application of this formula was justified by the necessity of ensuring an adequate sample size to achieve reliable statistical results in quantitative research. Hence, 90 respondents were considered sufficient to test the effect of service quality on patient satisfaction. The selection of this sample size also accounted for limitations in terms of time, resources, and feasibility, while maintaining the robustness and validity of the study’s outcomes.

The population of this research consisted of all patients who had been hospitalized at UPTD Community Health Center in Mumbulsari within the last three months (Memon et al., 2020; Anderson & Lamp, 2022). This population was chosen to ensure that the data collected reflected the most recent and relevant patient experiences with inpatient services. From this population, respondents were selected using a combination of accidental sampling and purposive sampling techniques. Accidental sampling was applied to capture respondents who were available and willing to participate during the data collection period, while purposive sampling was employed to ensure that respondents met the inclusion criteria, namely being over 18 years of age, conscious, and willing to participate (Priyastama, 2020). The combination of these techniques was considered effective in obtaining a sample that is both practical and aligned with the research objectives.

The research was conducted at UPTD Community health centers Mumbulsari, located in Mumbulsari Subdistrict, Jember Regency. This site was chosen due to its significant role as a primary healthcare facility that provides inpatient services. The selection of this location was also based on its sufficient patient volume in the last

three months, which ensured the availability of adequate and relevant data. Additionally, practical considerations, such as accessibility for the researcher, contributed to the choice of this location. Conducting the study in a community health center is particularly valuable, as community health centers serve as the frontline of public health services and inpatient care is often considered a benchmark of patient satisfaction in such facilities.

The instrument employed in this study was a structured questionnaire based on the SERVQUAL model, using a five-point Likert scale (1–5). SERVQUAL was selected because it provides a comprehensive framework to measure service quality across five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Duli, 2020; Dombi & Jónás, 2021). Each dimension was operationalized into specific indicators tailored to the context of inpatient services at a community health center. The use of a structured questionnaire allowed for consistent and straightforward responses from participants, while facilitating quantitative data analysis. The Likert scale enabled the measurement of respondents' levels of agreement with various statements, thus capturing their perceptions in a structured and quantifiable manner. With this instrument, the study aimed to generate an empirical and systematic understanding of the relationship between inpatient service quality and patient satisfaction.

RESULT AND ANALYSIS

To gain a thorough knowledge of the relationship between service quality and patient happiness, the obtained questionnaire data were processed with the most recent version of the SPSS software. The analysis began with classical assumption testing to check that the regression model was valid, followed by multiple linear regression analysis to investigate the simultaneous and partial impacts of the independent variables on the dependent variable. The processed results were given in the form of tables, graphs, and statistically validated results. As a result, this analysis lays a solid platform for making inferences about the impact of reliability, responsiveness, assurance, empathy, and tangibles on inpatient satisfaction at the Mumbulsari Community Health Centre.

Based on the SPSS analysis, the classical assumption tests demonstrated that the residual data were normally distributed, no multicollinearity was detected, and there were no indications of heteroscedasticity. This confirms that the regression model satisfies the fundamental assumptions and is appropriate for further analysis. The resulting multiple linear regression equation is:

$$Y = 4.896 – 0.862\ X1 + 0.299\ X2 + 0.568\ X3 + 0.299\ X4 + 0.135\ X5$$

The interpretation of these findings indicates that reliability (X1) exerts a significant negative influence on patient satisfaction, whereas responsiveness (X2), assurance (X3), empathy (X4), and tangibles (X5) have significant positive effects. Among these variables, assurance (X3) contributes the most to enhancing patient satisfaction. The t-test confirms that all variables exert significant partial effects, while the F-test demonstrates a significant simultaneous influence, with an F-value of 81.671 and a significance level of 0.000. Furthermore, the Adjusted R Square value of 0.819 suggests that 81.9% of the variation in patient satisfaction is explained by the independent variables in the model, while the remaining 18.1% is influenced by factors outside the scope of this study.

Table 1.1 Results of Multiple Linear Regression Analysis of SERVQUAL Dimensions on Patient Satisfaction

Variabel	B	Std. Error	Beta	t	Sig.	Remarks
(Constant)	4,896	0,935	-	5,239	0,000	Significant
Reliability (X1)	-0,862	0,100	-0,671	-8,621	0,000	Significant (negative)
Responsiveness (X2)	0,299	0,108	0,265	2,757	0,007	Significant
Assurance (X3)	0,568	0,109	0,470	5,219	0,000	Significant
Empathy (X4)	0,299	0,105	0,271	2,851	0,005	Significant
Tangibles (X5)	0,135	0,037	0,234	3,614	0,001	Significant

Source: Primary data processed using SPSS (2025).

The regression coefficient results indicate that the reliability factor (X1) has a significant negative effect on patient satisfaction. This finding suggests that the higher the level of reliability perceived by patients, the lower their satisfaction tends to be, and vice versa. This result is particularly interesting because reliability is typically expected to exert a positive influence, thereby indicating the possibility of a gap between patients' expectations and the actual

services received. Conversely, the variables of responsiveness (X2), assurance (X3), empathy (X4), and tangibles (X5) all demonstrate significant positive effects on patient satisfaction. Among these, assurance (X3) emerges as the most dominant factor, with the highest beta value (0.470), underscoring that the knowledge, courtesy, and competence of healthcare providers in fostering a sense of security are crucial determinants of satisfaction. Responsiveness and empathy also make notable contributions, highlighting that prompt service and personalized attention enhance the patient experience. Tangibles likewise exert a significant, albeit smaller, influence, confirming that the physical aspects of healthcare facilities remain an important component of service quality.

Table 1.2 Results of the F-Test (ANOVA) for the SERVQUAL Regression Model

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Regression	168,136	5	33,627	81,671	0,000
Residual	34,586	84	0,412	-	-
Total	202,722	89	-	-	-

Source: Primary data processed using SPSS (2025).

The F-test produced a calculated F value of 81.671 with a significance level of 0.000, which is far below the 0.05 threshold. This indicates that all independent variables *reliability, responsiveness, assurance, empathy, and tangibles* simultaneously exert a significant influence on inpatient satisfaction at the Mumbulsari Community Health Center. In other words, service quality as measured through the five SERVQUAL dimensions collectively explains variations in patient satisfaction levels. This finding is further reinforced by an Adjusted R^2 value of 0.819, suggesting that 81.9% of the variation in patient satisfaction can be explained by the model, while the remaining 18.1% is influenced by external factors beyond the scope of this study. Therefore, the regression model employed is both robust and relevant in describing the relationship between service quality and patient satisfaction, underscoring the importance of holistic service improvements to enhance patient satisfaction and strengthen public trust in primary healthcare services.

Table 1.3 Multicollinearity Test Results (Tolerance and VIF Values)

Variabel	Tolerance	VIF
Reliability (X1)	0,345	2,898
Responsiveness (X2)	0,362	2,764
Assurance (X3)	0,338	2,960
Empathy (X4)	0,401	2,493
Tangibles (X5)	0,389	2,569

Source: Primary data processed using SPSS (2025).

The multicollinearity test results show that all independent variables have tolerance values above 0.10 and VIF values below 10. This condition confirms that there is no multicollinearity problem in the regression model used. In other words, each independent variable—reliability, responsiveness, assurance, empathy, and tangibles—maintains a relatively independent relationship in influencing the dependent variable, namely patient satisfaction. This means that the regression model can be interpreted more accurately, as there is no excessive overlap or redundancy among the independent variables. Practically, these results indicate that the SERVQUAL dimensions tested truly represent distinct yet complementary aspects of healthcare services. Therefore, the contribution of each dimension to patient satisfaction can be validly analyzed, and the resulting regression model is appropriate to serve as a foundation for strategic decision-making in improving the quality of healthcare services at the Mumbulsari Community Health Center.

Table 1.4 Interpretation of Multicollinearity Test Results

Variabel	Tolerance	VIF	Remarks
Reliability (X1)	0,335	2,982	No multicollinearity
Responsiveness (X2)	0,219	4,562	No multicollinearity
Assurance (X3)	0,251	3,990	No multicollinearity
Empathy (X4)	0,225	4,447	No multicollinearity
Tangibles (X5)	0,484	2,064	No multicollinearity

Source: Primary data processed using SPSS (2025).

The results of the multicollinearity test indicate that all independent variables have tolerance values above 0.10 and VIF values below 10. This condition suggests that there is no strong linear relationship among the independent variables. Consequently, multicollinearity is not present, allowing each independent variable to be analyzed for its contribution to the dependent variable more validly. These findings confirm that reliability, responsiveness, assurance, empathy, and tangibles represent unique service dimensions that do not distort one another. Therefore, the regression model can be considered reliable, as it is free from multicollinearity issues that typically reduce the accuracy of coefficient estimation.

Table 1.5 Heteroskedasticity Test Results (Scatterplot Analysis)

Method of Analysis	Observation Results	Conclusion
Scatterplot (ZPRED-SRESID)	The points are randomly scattered, not forming a specific pattern (neither narrowing nor widening)	No heteroscedasticity detected

Source: Primary data processed using SPSS (2025).

Based on the scatterplot results between the predicted values (ZPRED) and residuals (SRESID), it is evident that the residual points are randomly distributed above and below the horizontal axis without forming any specific pattern. This indicates that the error variance is constant at every level of prediction, suggesting that the model is free from heteroscedasticity problems. Therefore, the assumption of homoscedasticity is fulfilled, and the regression parameter estimates can be considered efficient, unbiased, and appropriate for drawing valid research conclusions.

DISCUSSION

Model Validity and Classical Assumption Test

The initial analysis confirms that the regression model employed has met the classical assumptions, namely that the residuals are normally distributed, no heteroskedasticity is detected, and no multicollinearity occurs. These conditions indicate that the model is appropriate for further analysis. The Adjusted R^2 of 0.819 signifies a very high explanatory power, meaning that the independent variables (the SERVQUAL dimensions) are able to explain 81.9% of the variation in patient satisfaction. This finding is consistent with methodological literature that emphasizes the importance of testing classical assumptions to ensure the reliability of regression models. (Ghozali, 2018; Hair, 2009). Several studies have also shown that the application of SERVQUAL in the context of primary healthcare services generally produces relatively high R^2 values, as its dimensions are highly relevant to the patient experience (Wulandari et al., 2023; Gálvez et al., 2024; Shodiya et al., 2024). This finding is consistent with contemporary studies emphasizing that methodological quality, adequate sample size, and construct validity influence the predictive strength of the model (Tech, 2020; Arikewuyo et al., 2021; Bouranta et al., 2025; Alfiannor et al., 2025). Therefore, this model can be considered sufficiently robust to support the interpretation of relationships among variables.

Interpretation of Regression Coefficients

The resulting regression equation indicates that reliability (X1) has a significant negative effect on patient satisfaction, while responsiveness (X2), assurance (X3), empathy (X4), and tangibles (X5) have significant positive

effects. The negative coefficient for reliability is an intriguing finding, as in much of the previous literature, reliability is typically positively correlated with patient satisfaction. (Berry, 1988; Parasuraman et al., 1988; Wulandari et al., 2023; Alfiannor et al., 2025). This anomaly can be explained through expectation–disconfirmation theory, which emphasizes that satisfaction arises from the alignment between expectations and actual performance. (Oliver, 1980). Several recent studies confirm that when patient expectations are excessively high, merely moderate service performance can actually reduce satisfaction. (Almomani et al., 2020; Nembhard et al., 2023; Shodiya et al., 2024). Thus, this finding provides a novel contribution to the literature, particularly regarding the gap between expectations and the realities of primary healthcare service delivery.

Discussion of Variables: Assurance, Responsiveness, Empathy, and Physical Evidence

The assurance dimension emerges as the most dominant predictor in enhancing patient satisfaction. This underscores the critical role of medical staff competence, courtesy, and the ability to provide a sense of security in strengthening patient trust. In line with this, the study Ubery & Ernawaty emphasises that the guarantee factor contributes significantly to fostering patient loyalty to healthcare services. (Ubery & Ernawaty, 2024). Responsiveness and empathy also make significant contributions, consistent with the findings of Harahap and Lin et al., who emphasized the importance of timely service and personalized communication in fostering strong doctor–patient relationships (Harahap et al., 2022; Lin et al., 2024). Empathy, in particular, is highly relevant to the theory of patient-centered care, which underscores the importance of personalized attention in enhancing patient satisfaction (Mohile et al., 2020; Edgman-Levitan & Schoenbaum, 2021). Tangibles, although contributing relatively less, remain statistically significant. Factors such as cleanliness, comfort, and physical facilities have been shown to strengthen patients' perceptions of service quality (Putri et al., 2025). The consistency of these findings indicates that the SERVQUAL dimensions, despite their varying levels of contribution, complement one another in shaping overall patient satisfaction.

Methodological Limitations

Although the regression model demonstrates strong explanatory power, several methodological limitations must be acknowledged. The cross-sectional design restricts the ability to draw causal inferences, meaning that the findings only reflect associations rather than cause–effect relationships (Duli, 2020; Adil et al., 2023; Balaka, 2022; Azhari et al., 2023; Creswell & Creswell, 2023; Darmawan et al., 2024). Furthermore, the use of accidental and purposive sampling techniques carries the risk of selection bias, which may reduce the representativeness of the findings (El-Bassiouni et al., 2012; Sihotang, 2023; Jailani & Saksitha, 2024; Subhaktiyasa, 2024; Susanto et al., 2024). The unusually high Adjusted R^2 value (0.819) also warrants attention, as such levels are uncommon in primary healthcare research and may indicate potential overfitting of the model (Groenewegen et al., 2023; Saraiva et al., 2025). This suggests that while the SERVQUAL dimensions explain a substantial proportion of patient satisfaction variance, the results may be context-specific and not easily generalizable (Parasuraman et al., 1988). Therefore, future studies are advised to employ longitudinal designs, expand the sample across multiple community health centers in Jember, and adopt advanced analytical techniques such as Structural Equation Modeling (SEM) to capture latent constructs and complex interrelationships among SERVQUAL dimensions (Febriawati et al., 2022; Kamal et al., 2022; Sulistinah et al., 2023; Faeni, 2023; Ubery & Ernawaty, 2024). These methodological improvements would enhance the robustness of findings and increase their generalizability to broader healthcare contexts.

Synthesis and Policy Implications

Theoretically, this study reinforces the relevance of the SERVQUAL model in evaluating primary healthcare service quality while simultaneously challenging the long-held assumption of a consistently positive linear relationship between reliability and patient satisfaction. The negative coefficient found in the reliability dimension highlights the critical role of patient expectations in shaping satisfaction outcomes, particularly within primary care contexts (Oliver, 1980; Parasuraman et al., 1988; Harahap et al., 2022; Lestari & Putranto, 2024; Putri et al., 2025). This anomaly suggests that expectation-disconfirmation effects may operate more strongly in community-based health services compared to hospital settings. From a practical perspective, improving patient

satisfaction requires a holistic strengthening of all SERVQUAL dimensions. Assurance can be enhanced through communication training, technical competence development, and reinforcing patient safety protocols. Responsiveness should be improved by optimizing work systems, triage processes, and staff allocation, while empathy requires sustained investment in soft skills and supervisory coaching. Physical evidence also remains vital, as investments in facility cleanliness, comfort, and supportive infrastructure directly reinforce patients' perceptions of care quality (Mohile et al., 2020; Edgman-Levitan & Schoenbaum, 2021; Harahap et al., 2022; Asari et al., 2023; Ubery & Ernawaty, 2024; Lin et al., 2024).

By integrating theory, empirical findings, and policy recommendations, this study underscores the necessity of adopting a holistic approach to quality improvement in primary healthcare. Beyond strengthening SERVQUAL dimensions, addressing the role of patient expectations becomes a strategic priority for policymakers and managers. This integration ensures not only improved satisfaction but also long-term trust and sustainability of community health services (Edgman-Levitan & Schoenbaum, 2021; Febriawati et al., 2022; Mohile et al., 2020, 2020; Faeni, 2023) (Epstein & Street, 2020; Barry & Edgman-Levitan, 2021; Kawoco et al., 2020; Anzar et al., 2022; Dwi Astuti, 2022; Marlina & Yusuf, 2024)..

CONCLUSION

The findings of this study indicate that service quality has a significant influence on inpatient satisfaction at UPTD Community health centers Mumbulsari. The dimensions of assurance, responsiveness, empathy, and tangibles contribute positively and significantly to improving patient satisfaction, with assurance emerging as the most dominant factor. Interestingly, the reliability dimension shows a significant negative effect, suggesting the existence of a gap between patients' expectations and the actual services received. The regression model with an Adjusted R^2 value of 0.819 demonstrates that the research instrument employed has strong predictive power in explaining variations in patient satisfaction.

The practical implications of these findings emphasize the need for a comprehensive improvement in service quality, particularly in the areas of assurance, responsiveness, empathy, and tangibles, alongside adjustments in reliability to meet patient expectations. The health center is expected to enhance the competence of medical staff, improve service standards, and ensure greater comfort in facilities to build public trust. For future research, it is recommended to expand the study to other health centers, include external variables such as cultural factors or family support, and employ a longitudinal approach to capture changes in patient satisfaction more comprehensively over time.

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