

The Role of Service Quality and Parental Satisfaction in Fostering Trust for Child Immunization at Cilengkrang Public Health Center

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Abstrak

Low immunization coverage among children in Indonesia remains a critical issue contributing to the rise of vaccine-preventable diseases (VPDs). This study examines the influence of service quality on parental trust in the child immunization program at UPTD Puskesmas Cilengkrang, with parental satisfaction as an intervening variable. Using a quantitative approach and survey method, data were collected from 97 parents whose children received immunization services. Path analysis was employed to assess the relationships between variables. The results show that service quality significantly affects parental satisfaction, which in turn strengthens their trust in the program. Key dimensions such as tangibles, reliability, responsiveness, assurance, and empathy were found to be crucial in shaping positive perceptions. These findings suggest that improving service quality and satisfaction is vital to building trust and reducing immunization refusal rates.

Kata Kunci: Service Quality, Satisfaction, Trust, Child Immunisation, Community Health Centres

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1. Introduction

Immunization is a preventive measure in public health services, with the primary goal of protecting children from the risk of infectious diseases. In Indonesia, this program is implemented by the government through Community Health Centers (Puskesmas), which serve as primary healthcare facilities. Although implementation follows national guidelines and service standards, the reality on the ground shows that some parents still refuse to immunize their children. This reflects issues related to the level of trust in the healthcare services provided. Child immunization remains a cornerstone of public health, acting as a critical intervention to prevent and control a myriad of infectious diseases, thereby significantly reducing child morbidity and mortality rates globally (World Health Organization, 2023). Despite the established efficacy and universal recommendations for childhood vaccinations, achieving high immunization coverage consistently presents challenges, particularly in developing regions. Various factors, including accessibility, logistical hurdles, and community perceptions, can impede successful immunization programs. Among these, parental trust in healthcare providers and the vaccination process itself stands out as a paramount determinant of uptake. When parents trust the healthcare system, its personnel, and the information provided, they are more likely to comply with recommended immunization schedules, ensuring their children receive vital protection against preventable diseases. Conversely, a lack of trust can foster skepticism, misinformation, and vaccine hesitancy, posing a significant threat to community immunity and public health efforts.

In Indonesia, as in many other nations, public health centers (Puskesmas) operate as the primary frontline for delivering essential healthcare services, including vital child immunization programs. These centers are frequently the initial, and often sole, point of contact for families seeking preventative care for their children. The success of immunization initiatives within these settings thus heavily depends on the quality of services provided and the subsequent satisfaction experienced by parents. Service quality here is multifaceted, covering elements like staff responsiveness, facility cleanliness, clear communication, and the technical expertise of healthcare professionals. When these aspects meet or surpass parental expectations, they foster a positive experience that contributes significantly to overall satisfaction. This satisfaction isn't just a feeling; it's a powerful driver for continued engagement and, critically, for building trust in the healthcare services offered. Given that Puskesmas are frequently the only accessible healthcare providers, especially in underserved or rural areas, the quality of care delivered at this grassroots level directly impacts the health status of a substantial portion of the

population. A high-quality, well-functioning Puskesmas can effectively manage common illnesses, implement critical immunization programs, provide maternal and child health services, and conduct essential public health surveillance. When these services are delivered efficiently, empathetically, and reliably, they cultivate community trust, promote health-seeking behaviors, and ultimately contribute to a healthier populace.

Service quality is a crucial factor influencing public perceptions and attitudes toward healthcare facilities. According to Zeithaml, Parasuraman, and Berry (1990), service quality consists of five main dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In the context of childhood immunization services, these five aspects are highly relevant in shaping parental satisfaction. Satisfaction resulting from quality service can strengthen trust in healthcare providers.

The relationship between service quality, satisfaction, and trust is well-documented in various sectors, including healthcare. High-quality services tend to lead to greater patient satisfaction, and satisfied patients are more likely to exhibit higher levels of trust in their providers and the system. However, the dynamics of this relationship, particularly concerning highly sensitive health interventions like child immunization, warrant specific investigation. Parents' decisions regarding their children's health are often emotionally charged and deeply influenced by their perceptions of care and reliability. In the context of immunization, where concerns about vaccine safety, efficacy, and potential side effects may exist, trust becomes exceptionally vital. Understanding how specific aspects of service quality and parental satisfaction directly contribute to building this crucial trust in public health settings, such as Cilengkrang Public Health Center, is essential for designing effective health promotion strategies and improving immunization coverage rates.

The Cilengkrang Community Health Center (UPTD), as the technical implementing unit for public health services, still faces challenges in increasing early childhood immunization coverage. Based on field observations, immunization participation remains suboptimal due to parental hesitation and a lack of satisfaction with the services provided. However, good service quality should build positive perceptions and foster greater public trust.

This research is motivated by the need to further examine the relationship between service quality, parental satisfaction, and trust in the context of the childhood immunization program. By analyzing the interrelationships between these three variables, it is hoped that strategic steps can be formulated to improve service quality and build sustainable trust in the immunization program.

This research specifically focuses on Cilengkrang Public Health Center, recognizing its unique operational context and community characteristics within the West Java region. Despite ongoing efforts to promote child immunization, data from the center (or general regional trends if specific data isn't available) may indicate areas where parental trust could be strengthened to optimize immunization uptake. By exploring the precise roles of service quality and parental satisfaction in fostering this trust, this study aims to provide actionable insights for the public health center's management and policymakers. The findings are expected to inform targeted interventions aimed at enhancing service delivery, improving parental experiences, and ultimately, reinforcing community confidence in child immunization programs. This will not only benefit the local community but also contribute to the broader discourse on effective public health strategies for vaccine uptake in similar settings.

2. Method

This study uses a quantitative approach with a descriptive method. The population in this study were parents who have children aged 0-14 years at the Cilengkrang Community Health Center. The sampling technique used in this study was a non-probability sampling technique with a recorded population of 914 children, calculated using the Slovin formula, based on the calculation of the number of samples taken with a total of 90 people. Data collection was carried out through a questionnaire with a Likert scale. The variables analyzed consisted of service quality (X), parental satisfaction (Z), and parental trust (Y). The data collection technique in this study was a questionnaire, the questionnaire was given to parents who have children aged 0-14 years in the work area of the Cilengkrang Community Health Center. The data analysis technique used descriptive analysis and path analysis with the help of statistical processing software.

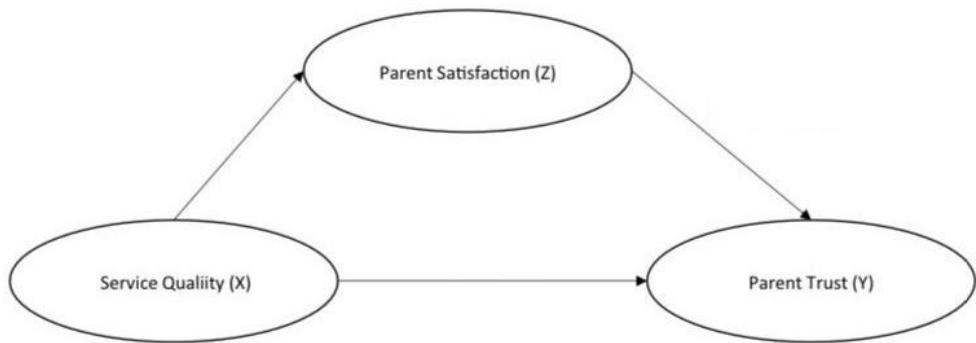


Figure 1. Conceptual Framework
Source: Developed For This Study (2025).

3. Result and Discussion

The study, conducted with 90 parent-child patient respondents at the Cilengkrang Community Health Center, analyzed the average perception indices for service quality, parental satisfaction, and parental trust. Data were collected using a likert-scale questionnaire and analyzed descriptively, as well as through path analysis to examine the relationships between variables.

Descriptive Statistics

Tabel 1. Mean perception index

Variable	Mean
Service Quality (X)	3.58
Parent Satisfaction (Z)	3,44
Parent Trust (Y)	3,64
Total Average Perception Index	3,55

As shown in Table 1, respondents' average perceptions of the three variables indicate a generally positive response. Trust (Y) received the highest mean score of 3.64, followed by service quality (X) with a score of 3.58. Parental satisfaction (Z), although still relatively favorable, recorded the lowest average score at 3.44. These findings suggest that while all variables are perceived positively, there remains room for improvement in parental satisfaction. This may be attributed to unmet expectations related to non-technical aspects of service delivery, such as comfort, communication, and the completeness of service procedures.

Path analysis was conducted using standardized beta coefficients through two regression equations. The first equation examined the effect of service quality (X) on parental satisfaction (Z), while the second equation assessed the influence of both service quality (X) and satisfaction (Z) on parental trust (Y). The analysis was carried out using SPSS to evaluate the statistical significance of the beta coefficients and to determine the extent to which each independent variable contributes to building parental trust in the child immunization program at the Cilengkrang Community Health Center.

Tabel 2. The Impact of Service Quality on Parental Satisfaction in the Child Immunization Program

Relationship	Beta Coefficient	t-Value	Sig. (p-value)
Service Quality (X) → Parent Satisfaction (Z)	0,280	2,846	0,005
Variable independent : Parent Satisfaction (Z)			
e1= 0,959			
R Square (R2) = 0,079			

Based on the analysis results, the regression equation indicating the effect of the independent variable (service quality) on the dependent variable (parental satisfaction) is formulated as :

$$Z = 0.280X + 0.959$$

This equation describes the relationship between parental satisfaction (Z) and service quality (X) within the context of the child immunization program at the Cilengkrang Community Health Center.

The coefficient of determination (R^2) shows that service quality (X) accounts for 7.9% ($R^2 = 0.079$) of the variation in parental satisfaction (Z). The remaining variance is attributable to other variables not included in this model. The service quality variable (X) produced a calculated t-value of 2.846, which exceeds the critical t-table

value of 1.98. Therefore, it can be concluded that service quality (X) has a statistically significant effect on parental satisfaction (Z).

Tabel 3. The Effect of Immunization Service Quality and Parental Satisfaction on Trust in the Child Immunization Program

Relationship	Beta Coefficient	t-Value	Sig. (p-value)
Service Quality (X) → Parent Trust (Y)	0,574	7,237	0,000
Parent Satisfaction (Z) → Parent Trust (Y)	0,227	2,856	0,005
Variable Independent : Parent Trust (Y)			
$e^2 = 0,738$			
R Square (R^2) = 0,454			

Based on the results of the regression analysis, the partial regression equation demonstrating the effect of service quality (X) and parental satisfaction (Z) on parental trust (Y) in the child immunization program at Puskesmas Cilengkrang is expressed as:

$$Y = 0.574X + 0.227Z + 0.738$$

As presented in Table 3, the coefficient of determination (R^2) for this model is 0.454, indicating that 45.4% of the variance in parental trust is explained by service quality and parental satisfaction. The remaining is presumed to be influenced by other unexamined variables outside the scope of this model. The service quality variable (X) has a t-value ($t = 7.237$) greater than the critical value ($t_a = 1.98$), signifying a statistically significant relationship ($p < 0.05$). Furthermore, the standardized beta coefficient for service quality is 0.574, reflecting a positive and substantial contribution to parental trust. These findings suggest that improvements in service quality are strongly associated with higher levels of trust among parents regarding the child immunization program at Puskesmas Cilengkrang.

The variable Z (parent satisfaction) has a calculated t-value of 2.86, which is greater than the critical value ($t = 1.98$), indicating a statistically significant effect on Y (parent trust). Parental satisfaction arises from various dimensions of service, including the professionalism of medical personnel, promptness of service, staff friendliness, adequacy of facilities, and patient involvement in decision-making. Meanwhile, parental trust refers to the belief in the competence, integrity, and benevolence of healthcare providers in delivering the best possible care.

Satisfaction plays a crucial role in shaping trust. When patients feel satisfied with the services received, they are more likely to develop a sense of trust in the healthcare provider. Satisfactory services foster trust, and increased trust, in turn, may enhance satisfaction through greater loyalty and more open communication. Therefore, healthcare providers must continuously improve the quality of their services not only to achieve patient satisfaction but also to build long-term trust that contributes positively to the sustainability of healthcare services. The standardized beta coefficient for parent satisfaction (Z) on parent trust (Y) is 0.227, indicating a positive relationship between the two variables.

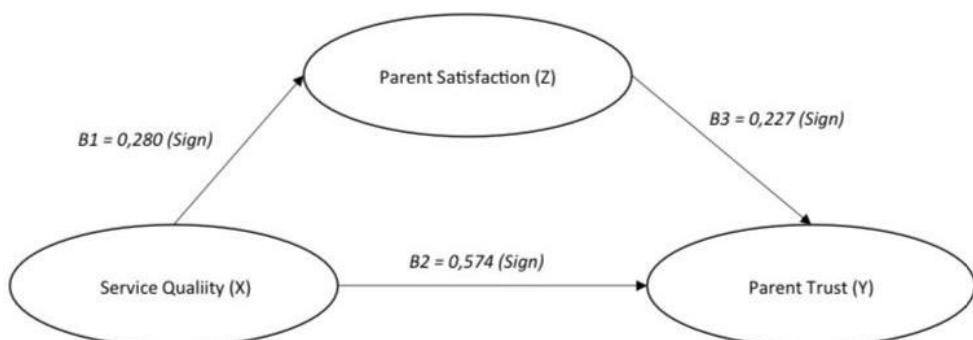


Figure 2. Path Analysis
Source : Result Analysis (2025)

Figure 2 illustrates that all relationships between variables in the model are statistically significant. Service quality (X) has a positive and significant influence on parental satisfaction (Z), with a path coefficient of 0.280. This indicates that higher levels of service quality are associated with increased parental satisfaction.

Furthermore, parental satisfaction (Z) also exerts a significant effect on parental trust (Y), with a coefficient of 0.227. This suggests that the more satisfied parents are especially when services meet or exceed their expectations the greater their trust in the healthcare provider.

Parental satisfaction plays a mediating role in the relationship between service quality and parental trust. It serves as a crucial link through which the perceived quality of immunization services translates into increased trust in the child immunization program at Puskesmas Cilengkrang. The mediating effect of satisfaction in this study was analyzed through both direct and indirect effects, indicating the significant intervening role of parental satisfaction in strengthening the influence of service quality on trust.

The study conducted at UPTD Puskesmas Cilengkrang indicates that perceptions of service quality, parental satisfaction, and trust in the child immunization program are generally positive, with average scores ranging from 3.44 to 3.64. Among these variables, trust recorded the highest mean score (3.64), suggesting a strong level of confidence among parents in the immunization process. This trust appears to be influenced by several key factors, including the competence of healthcare providers, the clarity of information provided, and the emotional reassurance felt by parents during service delivery. Nevertheless, the findings also reveal a degree of parental hesitation, which is largely attributed to the lack of interpersonal engagement and insufficient educational communication from healthcare personnel. This skepticism reflects broader systemic challenges often encountered by immunization programs, particularly in communities with low health literacy and widespread misinformation.

Through path analysis, the study further demonstrates that service quality has a significant effect on parental satisfaction (path coefficient = 0.280; $t = 2.846 > t\text{-table} = 1.98$). Additionally, service quality influences trust both directly (coefficient = 0.330) and indirectly (coefficient = 0.073) through the mediating role of satisfaction, resulting in a total effect of 0.403. Meanwhile, parental satisfaction also shows a direct but smaller effect on trust (coefficient = 0.051). These findings are consistent with the SERVQUAL framework and previous research, affirming that positive service experiences foster customer satisfaction, which in turn enhances trust in healthcare services.

Service Quality

The descriptive results show that most parents of children participating in the immunization program at Puskesmas Cilengkrang rated the service quality with an average score of 3.58, which falls into the "good" category. This average score reflects a generally positive level of acceptance, although improvements are still needed, particularly in the assurance and empathy indicators of service quality.

Parent Satisfaction

The descriptive results indicate that most parents of children in the immunization program at Puskesmas Cilengkrang reported an average satisfaction score of 3.44, which still falls within the "good" category, yet represents the lowest score among the measured variables. This suggests that, although the immunization program has provided an adequate level of service quality, there remains a gap between parental expectations and their actual experiences. This discrepancy may be attributed to non-technical factors such as comfort, communication quality, and the completeness of service procedures.

Parent Trust

Trust emerged as the variable with the highest average score, at 3.64, which is categorized as good. This indicates that parents tend to have stronger confidence in the competence and integrity of immunization officers compared to other aspects. The perceived competence of healthcare personnel plays a crucial role in fostering a sense of safety and trust among parents. Adequate knowledge, skills in handling children, as well as the speed and accuracy of medical actions contribute to parents' belief that the immunization process is carried out safely and in accordance with established standards not merely as an administrative obligation or for other irrelevant purposes. Trust is one of the key factors influencing the success of immunization programs, particularly for children. Parental trust in healthcare workers and immunization facilities increases their willingness to bring their children to complete the immunization schedule on time and in full..

4. Conclusion

The results of this study indicate that parental trust in the child immunization program at UPTD Puskesmas Cilengkrang is generally positive, although some doubts remain due to a lack of interpersonal communication and insufficient educational information from healthcare staff. Service quality was found to have a significant influence on parental satisfaction, particularly in aspects related to clarity of information, staff friendliness, and the comfort of the facilities. Both factors directly and indirectly through satisfaction affect the level of parental trust in the immunization program. The significant influence of service quality on parental satisfaction, as well as the impact of satisfaction on parental trust, demonstrates that satisfaction serves as a key determinant in fostering trust toward the immunization program. Therefore, it is recommended that UPTD Puskesmas

Cilengkrang continuously maintain and improve the quality of its services to ensure a sustainable and optimal sense of security and trust among parents regarding the child immunization program.x

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