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# THE INFLUENCE OF INTEGRATED PRIMARY CARE IMPLEMENTATION ON PATIENT SATISFACTION

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**ABSTRACT**
Integrated Primary Care (IPC) is one of the strategic initiatives of Indonesia's Primary Healthcare Transformation Program aimed at strengthening primary healthcare services through integrated, comprehensive, and life-cycle-oriented care. The implementation of IPC is expected to improve service quality and ultimately enhance patient satisfaction. However, empirical evidence regarding the relationship between IPC implementation, service quality, and patient satisfaction remains limited, particularly within community health center settings. This study aimed to analyze the influence of Integrated Primary Care implementation on patient satisfaction and to examine the mediating role of service quality at Talango Community Health Center, Sumenep Regency. A quantitative study with a cross-sectional design was conducted among 125 healthcare service users at Talango Community Health Center. Respondents were selected using accidental sampling techniques. Data were collected through structured questionnaires measuring IPC implementation, service quality, and patient satisfaction. Data analysis was performed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS version 4. The findings revealed that IPC implementation had a positive and significant effect on service quality ($\beta = 0.415$; $p < 0.001$). Service quality demonstrated a positive but statistically insignificant effect on patient satisfaction ($\beta = 0.168$; $p = 0.087$). Furthermore, IPC implementation did not significantly influence patient satisfaction ($\beta = -0.085$; $p = 0.432$). Mediation analysis indicated that service quality failed to significantly mediate the relationship between IPC implementation and patient satisfaction ($\beta = 0.070$; $p = 0.127$). IPC implementation significantly improved perceived service quality but did not significantly increase patient satisfaction, either directly or indirectly through service quality mediation. These findings suggest that patient satisfaction is influenced by broader factors beyond service quality, including patient experience, healthcare accessibility, communication effectiveness, and facility comfort. Strengthening patient-centered healthcare approaches may be essential to maximize the benefits of IPC implementation.

Keywords: community health center; integrated primary care; patient satisfaction; primary healthcare; SEM-PLS; service quality

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## INTRODUCTION

Primary healthcare serves as the foundation of an effective healthcare system and plays a crucial role in improving population health outcomes. Strong primary healthcare systems contribute to better health outcomes, improved equity, enhanced accessibility, and more efficient healthcare delivery (Starfield et al., 2020). In Indonesia, Community Health Centers (Puskesmas) function as first-level healthcare facilities responsible for delivering promotive, preventive, curative, rehabilitative, and palliative healthcare services. Therefore, the quality of services provided by Puskesmas significantly influences public trust and confidence in the healthcare system (Kementerian Kesehatan Republik Indonesia, 2022).

As healthcare needs and public expectations continue to increase, service quality and patient satisfaction have become important indicators of healthcare performance. Patient satisfaction reflects the extent to which healthcare services meet or exceed patient expectations. According to

Kotler and Keller (2022), satisfaction occurs when perceived performance meets or surpasses customer expectations. Similarly, service quality has been recognized as one of the main determinants of patient satisfaction and loyalty in healthcare organizations (Tjiptono & Chandra, 2023). The SERVQUAL model developed by Parasuraman et al. (1988) identifies five dimensions of service quality, namely reliability, responsiveness, assurance, empathy, and tangibles, which significantly influence patients' perceptions of healthcare services.

Previous studies have consistently demonstrated a positive relationship between healthcare service quality and patient satisfaction. Improvements in service quality contribute to higher levels of patient satisfaction in primary healthcare settings (Anjayati, 2021). Likewise, Utami et al. (2023), Suleiman and Abdulkadir (2022), and Marvia et al. (2025) reported that healthcare users tend to be more satisfied when healthcare services are delivered efficiently, responsively, and according to their expectations.

Despite these findings, many primary healthcare facilities continue to face challenges related to fragmented healthcare services, inadequate coordination among healthcare providers, inefficient service delivery processes, and limited continuity of care. These challenges may negatively affect healthcare quality and patient satisfaction. To address these issues, the Indonesian Ministry of Health introduced Integrated Primary Care (IPC) as one of the strategic initiatives within the national health transformation agenda. IPC aims to strengthen primary healthcare services through integrated healthcare delivery, continuity of care, strengthened service networks, and improved healthcare management systems (Kementerian Kesehatan Republik Indonesia, 2023).

The concept of Integrated Primary Care is aligned with global recommendations promoting integrated and people-centered healthcare systems. The World Health Organization emphasizes that integrated primary healthcare improves accessibility, comprehensiveness, coordination, and continuity of healthcare services while enhancing patient experiences throughout the continuum of care (World Health Organization, 2023). Previous studies have shown that integrated healthcare systems contribute positively to healthcare quality through improved interprofessional collaboration, service coordination, and organizational performance (Bouton et al., 2023; Davidson et al., 2022; Van Hoorn et al., 2024).

Although Integrated Primary Care has become a major healthcare transformation strategy in Indonesia, empirical evidence regarding its influence on patient satisfaction remains limited. Existing studies have primarily focused on healthcare quality improvement and organizational performance rather than examining the mechanisms through which IPC influences patient satisfaction. Furthermore, patient satisfaction is recognized as a multidimensional construct influenced not only by service quality but also by communication, accessibility, trust, continuity of care, and patient experiences (Batbaatar et al., 2022; Bansal et al., 2024).

Talango Community Health Center in Sumenep Regency is one of the primary healthcare facilities that has implemented Integrated Primary Care as part of Indonesia's healthcare transformation program. However, community satisfaction evaluations indicate that opportunities for service improvement remain, and complaints related to healthcare services continue to be reported. This condition highlights the need to evaluate whether IPC implementation has effectively improved service quality and patient satisfaction among healthcare users. Therefore, this study aims to analyze the influence of Integrated Primary Care implementation on service quality and patient satisfaction at Talango Community Health Center, Sumenep Regency. In addition, this study examines the mediating role of service quality in the relationship between IPC implementation and patient satisfaction. The findings are expected to contribute to healthcare management literature and provide evidence-based recommendations for strengthening Integrated Primary Care implementation in Indonesia.

## METHOD

This study was conducted at Talango Community Health Center, Sumenep Regency, using a quantitative research approach. A cross-sectional design was employed to determine the influence of Integrated Primary Care (IPC) implementation on patient satisfaction through service quality. The study population consisted of patients who received healthcare services at Talango Community Health Center. A total of 125 respondents were selected using an accidental sampling technique.

Data collection consisted of primary data obtained through questionnaires distributed directly to respondents. The results of the validity and reliability test of the questionnaire instrument on 125 respondents obtained a table r value (Product Moment) of 0.175 and the results of the reliability test showed a Cronbach's Alpha value of 0.622. Thus, the IPC implementation questionnaire instrument has been proven valid and reliable. The questionnaire measured three variables, namely Integrated Primary Care (IPC) implementation, service quality, and patient satisfaction. IPC implementation was assessed based on service integration, strengthening healthcare service networks, and healthcare management. Service quality was measured using reliability, responsiveness, assurance, empathy, and tangibles indicators, while patient satisfaction was measured through respondents' perceptions of the healthcare services received.

Data analysis was performed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) through SmartPLS version 4. SEM-PLS was used to analyze both direct and indirect relationships among variables. The analysis included evaluation of the outer model and inner model. The validity test was assessed using outer loading and Average Variance Extracted (AVE) values. Indicators with loading values greater than 0.70 were considered acceptable, while indicators with loading values below 0.40 were eliminated. Reliability was evaluated using Composite Reliability (CR) and Cronbach's Alpha (CA), with values greater than 0.70 indicating good reliability. The structural model was evaluated using path coefficients, coefficient of determination ($R^2$), and bootstrapping procedures. Hypothesis testing was conducted using a significance level of 5%, where a t-statistic greater than 1.96 and a p-value less than 0.05 indicated a significant relationship between variables.

## RESULT

This study involved 125 respondents at Talango Community Health Center, Sumenep Regency. The majority of respondents were female, accounting for 76.8% of the total sample, while male respondents accounted for 23.2%. Based on educational level, most respondents had completed senior high school or equivalent education (34.4%), followed by junior high school or equivalent education (24.8%) and elementary school education (23.2%).

Table 1.
Structural Equation Modeling (SEM) Analysis Results

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| Service Quality (Z) → Patient Satisfaction (Y) | 0,168 | 0,189 | 0,098 | 1,716 | 0,087 |
| IPC Implementation (X) → Patient Satisfaction (Y) | -0,085 | -0,097 | 0,108 | 0,787 | 0,432 |
| IPC Implementation (X) → Service Quality (Z) | 0,415 | 0,411 | 0,090 | 4,611 | 0,000 |

Table 1, two structural paths were found to be statistically insignificant, namely the relationship between Service Quality (Z) and Patient Satisfaction (Y) and the relationship between IPC Implementation (X) and Patient Satisfaction (Y), as indicated by p-values greater than 0.05 and T-statistics lower than 1.96. In contrast, the relationship between IPC Implementation (X) and Service Quality (Z) was statistically significant, as evidenced by a p-value lower than 0.05 and a T-statistic greater than 1.96.

Table 2.
Specific Indirect Effect Analysis

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|

Table 2, the indirect effect of IPC Implementation (X) on Patient Satisfaction (Y) through Service Quality (Z) produced an Original Sample coefficient of 0.070, indicating a positive relationship. However, the T-statistic value was 1.528, which was lower than the critical value of 1.96. Similarly, the p-value was 0.127, which exceeded the significance threshold of 0.05. Therefore, the indirect effect was not statistically significant.

## DISCUSSION

### The Influence of Integrated Primary Care (IPC) Implementation on Service Quality

The study found that Integrated Primary Care (IPC) implementation positively influenced service quality at Talango Community Health Center ($\beta = 0.415$), with a statistically significant effect ($p < 0.05$). This finding indicates that better implementation of IPC is associated with improved service quality. Integrated Primary Care was introduced to strengthen primary healthcare services through integrated, comprehensive, and people-centered healthcare delivery (Kementerian Kesehatan Republik Indonesia, 2023). The implementation of integrated services improves coordination among healthcare providers and enhances the continuity of care, which ultimately contributes to better healthcare quality. These findings indicate that IPC implementation at Talango Community Health Center has successfully improved healthcare service quality. Better service integration and healthcare management can help healthcare facilities provide more responsive and comprehensive services to the community.

### The Influence of Service Quality on Patient Satisfaction

The study found that service quality positively influenced patient satisfaction ($\beta = 0.168$). However, the effect was not statistically significant ($p > 0.05$). Although better service quality tended to increase patient satisfaction, the relationship was not significant. According to Utami et al. (2023), service quality is reflected through reliability, responsiveness, assurance, empathy, and tangible aspects of healthcare services. High-quality services are generally expected to improve patient satisfaction because they fulfill patient expectations and healthcare needs. The insignificant result suggests that patient satisfaction at Talango Community Health Center may be influenced by additional factors beyond service quality, such as waiting time, accessibility, communication, treatment outcomes, and patient expectations. Therefore, improving service quality alone may not be sufficient to significantly increase patient satisfaction.

### The Influence of Integrated Primary Care (IPC) Implementation on Patient Satisfaction

The study found that IPC implementation had a negative and statistically insignificant effect on patient satisfaction ($\beta = -0.085$; $p > 0.05$). This result indicates that improvements in IPC implementation were not directly associated with increased patient satisfaction among patients at Talango Community Health Center. Although IPC is expected to improve healthcare delivery through service integration, the findings suggest that its implementation alone is insufficient to significantly influence patients' satisfaction levels. Integrated Primary Care focuses on strengthening healthcare systems through service integration, continuity of care, and improved healthcare management (Kementerian Kesehatan Republik Indonesia, 2022). Through this approach, healthcare services are expected to become more comprehensive, coordinated, and patient-centered. However, many improvements resulting from IPC implementation occur at the organizational and managerial levels, making them less visible to patients during their healthcare visits.

The findings of this study indicate that patients tend to evaluate healthcare services based on their direct experiences, such as waiting time, healthcare provider communication, responsiveness,

accessibility, and treatment outcomes. Consequently, organizational improvements resulting from IPC implementation may not immediately translate into higher patient satisfaction. Similar findings were reported by Davidson et al. (2021), who found that integrated care initiatives do not always directly influence patient satisfaction because patients often prioritize their personal experiences during service utilization. These results suggest that successful IPC implementation should not only focus on service integration but also ensure that patients directly perceive the benefits of healthcare improvements. Therefore, healthcare providers should strengthen patient-centered approaches, improve communication, and enhance patient experiences to maximize the impact of IPC implementation on patient satisfaction.

**The Mediating Role of Service Quality in the Relationship Between IPC Implementation and Patient Satisfaction**

The study found that service quality did not significantly mediate the relationship between IPC implementation and patient satisfaction ($\beta = 0.070$; $p > 0.05$). Although IPC implementation significantly improved service quality, the indirect effect on patient satisfaction was not statistically significant. These findings indicate that service quality was unable to act as a mediating variable between IPC implementation and patient satisfaction. Patient satisfaction is influenced by various factors beyond healthcare service quality, including communication, accessibility, trust, waiting time, and perceived treatment outcomes (Batbaatar et al., 2022). Therefore, improvements in service quality alone may not be sufficient to significantly increase patient satisfaction. These findings suggest that the implementation of Integrated Primary Care should be accompanied by broader patient-centered strategies to ensure that improvements in healthcare services are directly perceived by patients. Such efforts may strengthen patient satisfaction and maximize the benefits of IPC implementation at Talango Community Health Center.

## CONCLUSION

Integrated Primary Care (IPC) implementation significantly improved service quality at Talango Community Health Center. However, neither service quality nor IPC implementation had a significant effect on patient satisfaction. In addition, service quality did not significantly mediate the relationship between IPC implementation and patient satisfaction

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