

The Influence of Service Quality (Servqual) on the Satisfaction of BPJS Patients in Indonesian Healthcare Facilities: A Systematic Review

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Abstract. *The increasing number of BPJS users is not always accompanied by improvements in service quality, leading to varied patient experiences and satisfaction levels. This study aims to analyze and synthesize empirical evidence on the influence of the five SERVQUAL service quality dimensions—reliability, assurance, tangibility, empathy, and responsiveness—on BPJS patient satisfaction in Indonesian health facilities. Therefore, a systematic review is needed to comprehensively examine this influence. This study employs a systematic review method to explore the relationship between health service quality and BPJS patient satisfaction, based on the five service quality dimensions (reliability, assurance, tangibility, empathy, and responsiveness) at facilities such as hospitals and community health centers (Puskesmas). The review was conducted using the Google Scholar database. The five SERVQUAL service quality dimensions (reliability, assurance, tangibility, empathy, and responsiveness) generally show a significant positive relationship with BPJS patient satisfaction in Indonesian health facilities. Although the most influential dimension varies across studies, overall improvements in service quality across all dimensions directly contribute to higher patient satisfaction. Based on the nine studies analyzed, the five SERVQUAL service quality dimensions (reliability, assurance, tangibility, empathy, and responsiveness) generally have a significant relationship with BPJS patient satisfaction.*

Keywords: *Quality of Service; Patient Satisfaction; BPJS; Healthcare Facility in Indonesia; 5 Dimension of Service Quality*

INTRODUCTION

The World Health Organization (WHO) states that good health services are those that provide effective, safe, and high-quality services to those who need them, supported by adequate resources. Efforts to build health can be effective and successful if the needs of health resources can be met. Health resources include resources, manpower, advice, and financing (Sary et al., 2021). Health is a human right regulated in the 1945 Constitution, Article 28H paragraph (1) and Article 34 paragraph (3). These articles explain that everyone has the right to live a prosperous life---both physical and spiritual---to have a place to live, a good and healthy living environment, and to obtain health services, with the state responsible for providing adequate health service facilities and public service facilities (Widyastuti et al., 2024).

Based on Law No. 24 of 2011, the Social Security Administration Agency (BPJS) operates as a legal entity mandated to administer the national social security program. Consisting of *BPJS Kesehatan* and *BPJS Ketenagakerjaan*, this institution---with a dual system---functions as an important indicator of welfare, especially to assess the quality standards of health services throughout the archipelago (Prasetyo & Rahayu, 2025).

Service quality is an important aspect that determines customer satisfaction---or rather patient satisfaction in this study---but this concept is often difficult to define and measure accurately due to its qualitative nature (Asamoah, 2025; Kondjeni, 2016; Mehraramolan, 2016). Therefore, this study adopts the SERVQUAL (Service Quality) Model as the main methodological framework (Jonkisz et al., 2021, 2022; Prentkovskis et al., 2018). This study will focus on five main dimensions, namely reliability, assurance, physical evidence, empathy,

and responsiveness (Huliatunisa et al., 2022).

Patient satisfaction with health services is an essential indicator used to measure the quality of health services and is an overview of the medical service industry. When obtaining health services, patients who show a positive response regarding their perceived and fulfilled ambitions can be considered satisfied and happy. The patient's relationship with the medical staff, the cost aspect, the quality of resources, and the comfort felt by the patient are all factors that contribute to patient satisfaction (Eliza et al., 2024). Patient satisfaction affects the provision of quality health services that are timely, efficient, and patient-centered. Thus, patient satisfaction is a very effective parameter to measure the success of doctors, medical personnel, and healthcare facilities.

Given the pivotal role of service quality in shaping patient experiences and the significant variation in satisfaction among BPJS users, this systematic review aims to comprehensively analyze the influence of the five SERVQUAL dimensions on the satisfaction of BPJS patients across various Indonesian healthcare facilities. By synthesizing findings from existing studies, this research seeks to identify consistent patterns, dominant factors, and existing gaps in the relationship between service quality and patient satisfaction. The findings of this review are expected to provide valuable insights for healthcare managers, policymakers, and practitioners to formulate more effective and patient-centered service improvement strategies. Ultimately, enhancing service quality is anticipated to not only increase patient satisfaction and trust in the BPJS system but also contribute to the overall effectiveness and equity of the national healthcare program.

MATERIALS AND METHODS

This research employed a systematic review method using pre-existing journals that examined patient satisfaction with service quality, assessed across five dimensions—Reliability, Assurance, Tangibility, Empathy, and Responsiveness—and its influence on *BPJS* patient satisfaction in health facility networks across Indonesia.

The inclusion criteria comprised journals published within the last five years (2020–2025) on health facilities, including both hospitals and health centers, that investigated *BPJS* patient satisfaction in relation to service quality levels across the five dimensions mentioned above.

The primary data source search included the Google Scholar database. The keywords used for article searches were "Service Quality," "Patient Satisfaction," "*BPJS*," "Indonesian Health Facilities," and "5 Dimensions of Service Quality." This systematic review applied a five-year inclusion criterion (2020–2025) for all identified literature, prioritizing established study selection protocols as documented in Figure 1. At the end of the study search, nine studies were deemed worthy of further review.

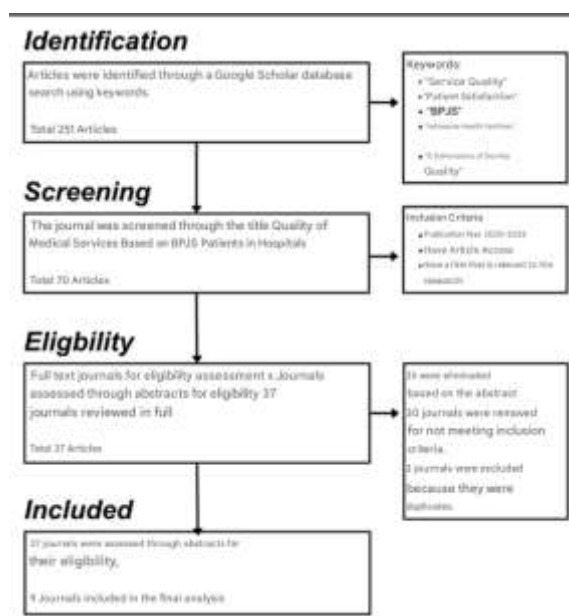


Figure 1. The process of selecting the journals that are analyzed

RESULTS AND DISCUSSION

Based on the nine studies analyzed, it was found that the five dimensions of service quality in the SERVQUAL model were generally significantly related to the level of satisfaction of BPJS patients in various Indonesian health facilities. The study of Panjaitan et al. (2020) shows that all dimensions—tangible, reliability, responsiveness, empathy, and assurance—are significantly related, with empathy as the most dominant factor. Research by Hasbina & Badiran (2020) also found a significant relationship across all dimensions, with assurance as the most influential variable. In the research of Siboro et al. (2024), three dimensions, namely tangible, reliability, and responsiveness, have proven to be significant to the satisfaction of Mobile JKN users. Parinduri & Khallid (2022) identified that reliability and responsiveness are key factors in determining patient satisfaction at Grandmed Hospital. The study by Endartiwi & Setianingrum (2019) reinforces this finding by showing that the five dimensions have a significant effect, with assurance being the strongest dimension. Meanwhile, Siswati's (2015) research found that four dimensions—reliability, tangible, responsiveness, empathy—were significantly related, but assurance was not related due to limited physician resources. Dewi & Ernawati (2023) reported high levels of satisfaction in all dimensions, especially tangible (91.4%) and empathy (90.3%). Research by Monsow et al. (2023) also concluded that all dimensions have a significant relationship with inpatient satisfaction. Finally, the study of Yulanda et al. (2024) found that tangible, reliability, responsiveness, and empathy have a significant effect, while assurance has no effect on the quality of outpatient services. Overall, these findings confirm that improving service quality in all dimensions of SERVQUAL will have direct implications for increasing BPJS patient satisfaction.

The main focus of the discussion in the literature review of 9 articles is the relationship between service quality and the level of satisfaction of BPJS patients in health facilities both in hospitals and health centers. The quality of health service quality and patient satisfaction cannot be separated because they are interconnected and influential (Pasalli & Patattan, 2021). According to Sofiana, Wahyuni, and Supriyadi (2020), it is stated that the concept of service

quality related to patient satisfaction is determined by five elements that we commonly known as the term "SERVQUAL" (tangible, assurance, responsiveness, reliability, and empathy) (Sofiana et al., 2020).

According to Panjaitan et al, who researched 96 subjects on the influence of service quality on patient satisfaction, it was found that the dimensions of tangibility, reliability, assurance, empathy, and responsiveness play an important role, where reliability was recorded to have a significant influence (P Value 0.005) (Panjaitan et al., 2020). Broadly speaking, respondents tend to feel dissatisfied with the services received. The data showed a consistent pattern across dimensions, with the largest percentage of respondents (37.5%) rating the service as poor but still feeling "moderately satisfied", while respondents who were truly "satisfied" (ranging 26%-29%) generally rated the service dimension as good. These results indicate the need for overall quality improvement in all aspects of service to drive more optimal patient satisfaction levels than simply "moderately satisfied".

Research from Wildan et al. who examined 75 outpatients participating in JKN at the Muhammadiyah Hospital in North Sumatra, using the cross-sectional method, found a significant relationship between the five dimensions of service quality with a p value of <0.05 (Tangibility, Reliability, Responsiveness, Assurance, Empathy) and patient satisfaction levels (Wildani et al., 2020). Most significant findings were that the assurance variable was the most influential factor; with an OR value of 6.781, suggesting that patients who rated assurance well were 6.781 times more likely to feel satisfied.

The study from Siboro et al also found a similar thing where from 96 respondents studied at Doloksanggul Hospital it was found that there was a significant relationship between Tangibility, Reliability and Responsiveness with p values of 0.012, 0.027, and 0.025, respectively. The overall quality of service has a positive and significant influence on user satisfaction (Siboro et al., 2024). Nevertheless, the responsiveness dimension was identified as the most dynamic and the most problematic. Many patients still feel that the application service is not responsive, especially due to technical inhibiting factors such as unsupported mobile phones or unstable internet networks. Therefore, healthcare institutions need to focus on improving the reliability of online services while addressing technological constraints that hinder responsiveness.

Study by Anggi Isnani Parinduri et al (2022) at Grandmed Lubuk Pakam Hospital with a total sample of 50 respondents. Of the 50 respondents, 33 respondents (66%) were satisfied with the medical services at the hospital (Parinduri & Khalid, 2022). The results of statistical analysis showed that of the five dimensions, only two dimensions had a significant relationship with patient satisfaction, namely reliability (p value = 0.016) and responsiveness (p value = 0.001). From the reliability dimension, the health services provided by health workers are considered fast and appropriate, while from the responsiveness dimension, patients are satisfied with health workers who provide complete health information, are easy to understand, and are quite responsive. The results of this study are in line with the research conducted by Simalango (2019) that the dimensions that have significance are reliability and responsiveness.

A study conducted by Sri Sularsih Endartiwi et al (2018) at the First Level Health Facility of the Special Region of Yogyakarta Province examined the correlation of the service quality dimension (SERVQUAL) to patient satisfaction with a total sample of 850 people based on the selection of 50 representatives in each health facility. The five dimensions, namely tangible,

reliability, responsiveness, assurance, and empathy, have a significant relationship with the value of $p = 0.000$ and with a correlation coefficient of $0.627 - 1.000$ (Endartiwi & Setianingrum, 2019). From a tangible aspect, it can be assessed that the availability of outpatient facilities and adequate medical equipment and the appearance of the doctor are neat. From the aspect of reliability, medical personnel are quite agile and fast in providing services to patients. From the assurance aspect, it is considered that doctors and nurses in health facilities are always on standby and able to serve patients well. From the aspect of responsiveness, doctors always provide interactive explanations with patients with a friendly and polite attitude. From the aspect of empathy, it is considered that medical personnel always try to calm patients related to health conditions and do not limit consultation time. Based on the order of correlation significance based on the dimension coefficient number, the dimensions that have a strong correlation to the strongest are empathy, reliability, responsiveness, assurance, and tangible. The results of this study are in line with research conducted by Gaghana et al (2014), Mernawati (2016), and Antina (2016) which found a positive relationship between the five dimensions and patient satisfaction in the primary service order and the importance of these five dimensions for future health services.

A study conducted by Sri Siswati (2015) at the Makassar City Hospital examined the multivariate correlation between the five dimensions of service quality (SERVQUAL) on patient satisfaction. Based on the results of statistical analysis, it can be found that there is a significant relationship (p value = < 0.05) in four of the 5 dimensions. The dimensions of Reliability ($p = 0.001$), Tangible ($p = 0.000$), Empathy ($p = 0.000$), and Responsiveness ($p = 0.001$) were identified as significant predictors of patient satisfaction (Siswati, 2015). Some of the factors that support patient satisfaction in each dimension include the perception of the reliability and timeliness of doctors, the cleanliness and hygiene of hospital facilities (tangible), fair and non-discriminatory treatment of all patients receiving treatment (empathy), and the speed and accuracy of pharmaceutical services and procedural admission (responsiveness)). However, on the other hand, this study also identified significant factors related to patient dissatisfaction with the quality of service dimensions, namely long administrative duration, some problematic facilities, some fewer friendly staff, and limited nurse responses in providing services. In contrast, the Assurance dimension (p -value = 0.491) did not show a statistically significant association with patient satisfaction. Although patients appreciate the doctor's diagnostic explanation, the availability of on-call doctors (limited to weekdays) is the dominant factor of dissatisfaction, which may neutralize the positive impact of this dimension. Quantitatively, although the majority of respondents ($84.9\% - 90.1\%$) stated satisfaction in all five dimensions, the inferential analysis concluded that Assurance was not a statistical determinant of satisfaction in this study cohort.

According to research by Ade Anjalita Santi Dewi and Ernawati (2023) on 93 respondents, it was found that all five dimensions of service quality (tangibles, reliability, assurance, empathy, and responsiveness) have a significant influence on patient satisfaction levels (Dewi & Ernawati, 2023). In the reliability dimension, a value of $p = 0.001$ was obtained, with 83 respondents (89.2%) stating satisfaction, indicating that the accuracy and consistency of service strongly contributed to patient satisfaction. The assurance dimension also showed significant results with a value of $p = 0.000$, where the same proportion (89.2%) of respondents felt satisfied, indicating the importance of patient confidence and trust in the competence of

health workers. In the dimension of physical evidence (tangibles), the value of $p = 0.001$ with 85 respondents (91.4%) stating satisfaction, showing that physical facilities and infrastructure play a role in shaping patients' positive perceptions of hospital services. Meanwhile, the empathy dimension has a value of $p = 0.000$ with 84 respondents (90.3%) rating the service to be good, emphasizing that the attention and understanding of health workers to the needs of patients greatly determines satisfaction. Finally, the responsiveness dimension also showed a significant influence ($p = 0.000$) with 81 respondents (87.1%) assessing good service, which highlighted the importance of speed and readiness of officers in responding to patient needs.

Overall, the results of this study reinforce that improving the overall quality of service in all dimensions of SERVQUAL will have direct implications for increasing patient satisfaction. Hospitals need to maintain consistent and responsive standards of service to create an optimal patient experience and strengthen trust in healthcare services.

According to research by Tobing et al. (2023) Out of 93 respondents, the results of the Chi-Square test showed that all dimensions of service quality (reliability, assurance, tangibles, empathy, and responsiveness) had a significant relationship with patient satisfaction levels ($p \leq 0.05$) (Tobing et al., 2023). In the reliability dimension, the value of $p = 0.004$ indicates a significant relationship between service reliability and patient satisfaction, with 46.2% of respondents assessing the service as reliable and satisfied with the services received. The assurance dimension recorded $p = 0.000$, where more than half of the respondents (52.7%) were satisfied with the assurance and trust given by health workers, indicating that professionalism and a sense of security are the main factors in patient satisfaction. Furthermore, the tangibles dimension ($p = 0.001$) showed that 47.3% of respondents were satisfied with the physical condition of the facility and the completeness of the hospital facilities, indicating the importance of the visual aspect and the comfort of the service environment. On the empathy dimension ($p = 0.003$), 53.8% of respondents stated satisfaction, indicating that the attention and concern of the staff had a great contribution in building a positive relationship with the patient. Finally, the responsiveness dimension ($p = 0.007$) was also significant, with 54.9% of respondents assessing health workers as responsive and fast in providing services.

Overall, the results of this study confirm that improving the quality of service in all dimensions of SERVQUAL has a great effect on inpatient satisfaction. Continuous improvement efforts in the aspects of reliability, empathy, responsiveness, assurance, and physical facilities are important keys in maintaining the quality of hospital services and strengthening patient trust.

According to research by Arnis et al. (2025) of 99 respondents at the Tanjung Rejo Health Center, it was found that four of the five dimensions of tangible service quality, reliability, responsiveness, and empathy had a significant influence on the quality of outpatient services ($p < 0.05$), while assurance did not show a significant effect ($p = 0.079$) (Arnis et al., 2025). The dimension of physical evidence (tangibles) has $p = 0.009$ and an odds ratio (OR) of 72.188, indicating that the condition of facilities, cleanliness, and comfort of facilities have a strong contribution to the quality of service. The reliability dimension with $p = 0.019$ and $OR = 42.082$ shows that consistent and timely service has a positive effect on service quality. Responsiveness also played a significant role ($p = 0.013$; $OR = 62,438$), illustrates that the speed and readiness of the staff in responding to patient needs is an important factor in building satisfaction and trust. Meanwhile, the dimension of empathy with $p = 0.043$ and $OR = 40.279$ confirmed that

the attention and concern of the officers towards patients contributed significantly to the quality of service.

On the other hand, the assurance dimension with $p = 0.079$ and $OR = 0.024$ showed a negative and insignificant influence, indicating the need to improve the trust and professionalism aspect of health workers. Overall, the results of this study emphasize that the quality of services in primary health facilities such as health centers is highly determined by the aspects of reliability, empathy, responsiveness, and adequate physical facilities. Continuous improvement in these four main dimensions is an important strategy in maintaining service quality and patient satisfaction.

CONCLUSIONS

This systematic review analyzed the relationship between SERVQUAL service quality dimensions (Reliability, Assurance, Tangibility, Empathy, and Responsiveness) and *BPJS* patient satisfaction across nine studies on Indonesian health facilities, including hospitals and health centers. The findings revealed a generally significant positive association between these dimensions and patient satisfaction, though variations existed: Empathy and Reliability emerged as most influential in some studies, while Assurance or Responsiveness dominated others, with Assurance occasionally lacking significance due to factors like limited on-call doctor availability. Overall, enhancing all SERVQUAL dimensions directly improved satisfaction, but persistent barriers such as prolonged administrative processes and digital service constraints require targeted interventions. For future research, longitudinal studies incorporating quantitative metrics (e.g., response times and digital adoption rates) alongside qualitative patient feedback could explore causal mechanisms and evaluate intervention effectiveness in diverse *BPJS* facility types.

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