Exploring Patient Satisfaction with Hospital Services Using SERVQUAL: A Case Study in Bandarlampung Municipality, Indonesia

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ABSTRACT

Research Aims: The research of hospital quality service in Indonesia by using SERVQUAL is limited in the literature. This research aims to analyze the dimensions necessary for hospitals to enhance service quality to meet the standards expected by stakeholders, hospital management, government, the academic community, and patients.

Design/methodology/approach: The research employs a survey method, distributing questionnaires to hospital patients as research tool. The study population comprises hospital users in Bandarlampung Municipality, with purposive sampling utilized for selection. Respondents were given the option to complete a questionnaire before leaving the hospital or online via email or WhatsApp for those discharged.

Research Findings: The findings reveal that dimensions of hospital service quality, including infrastructure, administrative procedures, overall patient experience, and hospital social responsibility, significantly influence patient’s satisfaction in hospitals in Bandar Lampung. However, the quality of human resources and security procedures do not exhibit a significant impact on patient’s satisfaction.

Theoretical Contribution/Originality: This research expands the application of the SERVQUAL model beyond its traditional domains by analyzing hospital service quality within the Indonesian context. The study identifies critical dimensions such as infrastructure, administrative procedures, overall patient experience, and hospital social responsibility as significant predictors of patient satisfaction. By understanding these challenges, context-specific strategies for enhancing service delivery can be developed.

Keywords: hospital services, patient satisfaction, human resources

Introduction

Patients assess the quality of healthcare services based on interpersonal and environmental aspects, which are often considered less significant by medical professionals. Additionally, many patients struggle to differentiate between the 'caring' (functional) and 'curing' (technical) aspects of healthcare provided by medical professionals (Ibrahim & Ahmed, 2019). Compared to other sectors offering consumer services, healthcare services possess distinctive characteristics, including intricate service levels, production processes, and intangible aspects. Financial considerations and the inadequate quality of human resources have the potential to
give rise to numerous complaints (Mitropoulos et al., 2018). Satisfaction of hospital patience has become a crucial measure for assessing the effectiveness of healthcare service providers over the last ten years (Vogus & McClelland, 2016; Kleefstra et al., 2015). Hospital patients’ perceptions encompass the quality of services delivered by the healthcare system, thereby shaping their subjective views of the hospitals where they receive care (Pini et al., 2014).

The complexity of patients’ illnesses contributes to the increasing intricacy of healthcare procedures. This complexity often leads to conflicts between agreed-upon patient diagnosis stages and the policies of healthcare providers (Mahadevan, 2020). Despite the bias inherent in patients' perceptions of healthcare providers, patients are the primary consumer group within the healthcare system and, as exclusive payers, have the right to expect high-quality services from government and private hospitals (Al-Neyadi et al., 2018).

Patient satisfaction levels significantly impact healthcare systems, affecting the utilization of medical devices, prognosis, litigations, and malpractice suits (Thiakarajan et al., 2015). The evaluation of services by patients is a crucial metric used to assess how well a healthcare facility is performing. Most of the time, the patient's perspective influences their degree of satisfaction since their expectations about how the services should be provided shape their own opinions (Mahadevan, 2020).

Consequently, patient satisfaction is currently the paramount criterion for evaluating healthcare delivery system performance. Patient satisfaction also plays a crucial role in engaging patients in their own healthcare plans. Different measurement tools around the globe prioritize diverse facets of the healthcare encounter, encompassing interactions with medical professionals, ease of access to hospitals, standard of essential medical equipment, and waiting durations (Zhang et al., 2020). For example, Najmuddin & Tan (2024) that conducted the study in of patient loyalty in one of state-owned hospitals in Cirebon-Indonesia, used the indicators of service quality as basic marketing strategy in four factors; hospital food, cleanliness, facilities and tools, and medical procedures. Fatonah (2019) conducted a study in a hospital in Central Java to examine the patient loyalty and patient satisfaction used service quality within the frame of tangibles, responsiveness, assurance, reliability, and empathy which introduced by Parasuraman et al., (1988) in the earlier concept of service quality, which similarly applicable to the study by Juwita et al., (2020), that examine patient satisfaction of BPJS holder based on the room type of public hospital patient in Banda Aceh.

Amid the COVID-19 pandemic, hospital services have become even more critical, given the influx of patients and the strain on healthcare facilities and personnel. Optimizing the healthcare system's efficiency can mitigate patient dissatisfaction with healthcare provider services. Interest in evaluating patient satisfaction, demands, and expectations surged during the economic crises worldwide, prompting stakeholders to enhance efficiency, particularly with limited
resources allocated to public healthcare services (Pantouvakis & Bouranta, 2014). This research will contribute to the literature by using different measurements that capture a broader scope of hospital service quality. It employs six factors that contribute to patient satisfaction: infrastructure, quality of human resources, administrative processes, hospital safety indicators, overall patient experiences, and hospital social responsibility (Georgiadou & Maditinos, 2017), which is not available yet in hospital service quality in Indonesia. Additionally, the majority of existing research comes from developed countries, casting doubt on the relevance of these findings for Indonesia. Additional studies are required to evaluate how these constructs and dimensions of service quality are applicable within Indonesian context and to investigate potential cross-cultural differences in perceptions of service quality (Juyal et al., 2024).

Literature Review

Infrastructure

Infrastructure constitutes an integral aspect of the healthcare system, intricately linked with patients' perceptions of hospital services (Al-Neyadi et al., 2018). Hospital infrastructure encompasses various components, including the cleanliness of the environment, maintenance and accessibility of cleaning facilities in areas like waiting rooms, diagnostic test rooms, operating theatres, delivery suites, food provisions, bedding, patient accommodations, ambulance amenities, technological advancements, pharmaceutical provisions, blood banks, and other related services (Ibrahim & Ahmed, 2019). Numerous studies underscore the significance of physical hospital facilities, both tangible and intangible, in delivering services to patients (Sumaedi et al., 2016; Karaferis & Niakas, 2024). Physical features and facilities, alongside location, physical security, privacy, hospital layout, and the appearance of the building and staff, are paramount factors in patient assessments of hospital infrastructure (Ibrahim & Ahmed, 2019; Ozretić Došen et al., 2020). Additionally, a comfortable and easily accessible location is pivotal in evaluating hospital infrastructure from a patient perspective (Sari et al., 2019).


Quality of Human Resources

The quality of human resources significantly shapes patients' impressions and experiences, particularly concerning the care delivered by healthcare practitioners like physicians, nurses, auxiliary personnel, paramedics, and administrative personnel. The quality of service rendered by hospital personnel hinges on six key factors: professional expertise, attitude and behavior, flexibility and accessibility, trustworthiness, recovery, and reputation and credibility (Gurung et al., 2020) (Ozretić Došen et al., 2020). Internal audits within hospitals are imperative to ensure that all personnel deliver excellent service to patients. The role of doctors in hospitals

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and patient satisfaction is crucial. Interactions between doctors and patients entail intensive communication, addressing patient concerns and needs, often occurring within formal settings and establishing long-term relationships. These interactions are closely tied to patient satisfaction and include assessments of doctors' professional experience, validation of patient beliefs, and staff performance (Gurung et al., 2020).

H2. There is quite a visible influence between patient perceptions of the quality of hospital human resources on satisfaction of the patients.

Administrative Procedures

Hospital administrative procedures encompass a series of processes determined by the hospital, commencing from the registration for admission to administrative procedures during the hospital stay, and extending to the protocols involving the discharge or return of the patient, or in the unfortunate event of the patient's demise while undergoing treatment (Karaferis & Niakas, 2024). Talib et al., (2013) highlight that enhancing access to hospital administration can mitigate patient dissatisfaction during the hospital care process. Delays at various stages during a patient's hospital stay often occur as a result of administrative processes. Research in the service industry suggests that delays are viewed as unjustified and inconsequential, potentially eliciting patient anger rather than mere dissatisfaction. De Simone et al. (2018) corroborates this notion, particularly regarding administrative procedures such as restricting telephone reception for patients and imposing limitations on patient visiting hours. Such policies assist patients in focusing on their recovery, consequently enhancing the perception of hospital care.

H3. There is a real influence between patient perceptions of the quality of hospital administration procedures on the degree of satisfaction of the patient.

Hospital Safety Indicators

Safety culture in an organization pertains to healthcare workers' attitudes and actions towards prioritizing and perceiving safety within a healthcare setting (Danielsson et al., 2019). Patient safety, emerging from the healthcare quality movement, is defined as the prevention of harm caused by errors due to negligence in duties. This definition indicates that ensuring safety and effective care requires the seamless integration and coordination of all elements within the healthcare system (Afshar et al., 2021). Patient safety culture enhances the safety of patient care by encompassing activities such as risk assessment, identification, and management of patient risks, incident reporting and analysis, learning from incidents and their follow-up, and implementing solutions to mitigate risks and prevent harm resulting from errors of commission or omission (Mohammed et al., 2021). The level of security provided by a hospital holds significant importance in shaping patient perceptions and patient satisfaction. Patients require a sense of security throughout their hospital stay and treatment. Georgiadou & Maditinos (2017) assert that leaders in the
healthcare system must prioritize patient safety and security as the primary goal of the hospital organization, aligning with the fundamental principles and philosophies of healthcare services since ancient Greece. Consequently, the high quality of hospital safety as one of the cores in hospital quality service would affect the patient satisfaction (Rahim et al., 2021).

H4. There is a positive influence between patient perceptions of the level of hospital safety indicators on the degree of patient satisfaction.

**Overall Healthcare Received by the Patient**

The comprehensive healthcare received by patients is a pivotal aspect of hospital services (Pini et al., 2014; Dempsey et al., 2014; De Simone et al., 2018). Zhang et al., (2020) and Kleefstra et al., (2015) emphasize the active and regular management of patient perceptions for several reasons. Higher service quality evaluations correlate with increased satisfaction levels, intention to reuse the same service in the future if needed, adherence to treatment procedures, patient involvement in treatment plan selection, reduced malpractice claims, and positive health outcomes for recovering patients (Mitropoulos et al., 2018). Moreover, patient perceptions significantly influence the financial performance of hospital organizations. Thiakarajan et al., (2015) underscores the authentic correlation between overall service perceptions and patient satisfaction. Furthermore, elevated levels of patient satisfaction lead to improved care quality, increased job satisfaction among hospital staff, reduced staff turnover rates, enhanced hospital financial performance, a stronger competitive position, and improved risk management (Al-Neyadi et al., 2018; Vogus & McClelland, 2016).

H5. Patient perceptions of the comprehensive quality of hospital healthcare significantly impact levels of patient satisfaction.

**Social Responsibility**

An essential factor in gauging patient satisfaction pertains to the quality of services provided by the hospital, which is also influenced by the hospital management’s contribution to society as part of social responsibility. This contribution is reflected in the hospital’s role as a facilitator of social welfare. Georgiadou & Maditinos (2017) assert that patient involvement in the healthcare process is ethical and anticipated, with patients expecting to participate in decision-making regarding medical actions undertaken by the hospital. Engaging in social responsibility initiatives, such as subsidizing hospital costs for underprivileged patients, offering affordable surgical services in economically disadvantaged areas, and providing health education, enhances patient satisfaction perceptions significantly (Padma et al., 2010).

H6. There is a real influence between patient perceptions of hospital social responsibility on the level of patient satisfaction.
Hospital service quality, serving as a tool for assessing patient perceptions, was implemented, and adapted from SERVQUAL.

Table 1. SERVQUAL Indicators

<table>
<thead>
<tr>
<th>SERVQUAL</th>
<th>Patients perception dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Clinical care process</td>
</tr>
<tr>
<td>Reliability</td>
<td>Procedures of hospital administrations</td>
</tr>
<tr>
<td></td>
<td>Indicators of safety</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>The high quality of hospital human resources</td>
</tr>
<tr>
<td>Assurance</td>
<td>The high quality of hospital human resources</td>
</tr>
<tr>
<td>Empathy</td>
<td>Medical care overall experience</td>
</tr>
<tr>
<td></td>
<td>Social responsibility</td>
</tr>
</tbody>
</table>


Method

The methodology employed in this study was quantitative approaches, encompassing parameter estimation, hypothesis testing, establishing confidence intervals, and examining the relationship between multiple properties (modifiers) for parameters with known distributions, such as the normal distribution. Subsequently, the data underwent analysis utilizing techniques like factor analysis and linear regression. The chosen research design follows a cross-sectional approach, which entails gathering data from a particular sample at a singular time point (Ibrahim &
Ahmed, 2019), specifically a single cross-sectional design, where data collection occurs from one respondent at one specific time only. The non-probability sampling - purposive sampling was used in this study. The population for this study comprised hospital users in Bandarlampung Municipality, specifically hospital patients who had previous experience of hospitalization in Bandarlampung hospitals. The total respondents in this study were 121 participants. The constructs that were employed in this study adopted from Padma et al., (2010) which also used in the study by Georgiadou & Maditinos (2017). The constructs are in Appendix 1. All constructs were measured using a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Prior to distributing the actual questionnaire to respondents, a pre-test was conducted to assess the accuracy of the questionnaire as a research measurement tool. According to Perneger et al. (2015), the sample size for instrument testing typically ranges from 15 to 30 respondents. Hence, this research included a total sample of 30 respondents. Subsequently, validity and reliability testing were performed to ensure that the instrument met the necessary validity and reliability requirements for use in the main research.

Results and Discussions
Descriptive analysis

The descriptive analysis in this study focuses on hospital consumers in Bandarlampung. The sample size consisted of 121 individuals who met the primary criteria, namely all consumers who had experienced hospitalization in hospitals within Bandarlampung. The discussion regarding the general description of patients and respondents’ identity based on the questionnaire distribution is summarized in Table 2.

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>43.00%</td>
</tr>
<tr>
<td>Male</td>
<td>69</td>
<td>57.00%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-27-year-old</td>
<td>60</td>
<td>49.60%</td>
</tr>
<tr>
<td>28-38-year-old</td>
<td>25</td>
<td>20.70%</td>
</tr>
<tr>
<td>39-49-year-old</td>
<td>30</td>
<td>24.80%</td>
</tr>
<tr>
<td>&gt; 50-year-old</td>
<td>6</td>
<td>4.90%</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>41</td>
<td>33.90%</td>
</tr>
<tr>
<td>Civil servant / Army</td>
<td>33</td>
<td>27.30%</td>
</tr>
<tr>
<td>Private company employee</td>
<td>8</td>
<td>6.60%</td>
</tr>
<tr>
<td>Small-business</td>
<td>17</td>
<td>14.00%</td>
</tr>
<tr>
<td>Non-working</td>
<td>22</td>
<td>18.20%</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; IDR 3.000.000,00</td>
<td>54</td>
<td>44.60%</td>
</tr>
<tr>
<td>IDR 3.000.000,00 - IDR 6.000.000,00</td>
<td>39</td>
<td>32.20%</td>
</tr>
<tr>
<td>Demographic Characteristics</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>IDR 6,000,000,00 - IDR 9,000,000,00</td>
<td>15</td>
<td>12.40%</td>
</tr>
<tr>
<td>&gt; 9,000,000,00</td>
<td>13</td>
<td>10.70%</td>
</tr>
<tr>
<td>Bandarlampung Municipality</td>
<td>119</td>
<td>98.00%</td>
</tr>
<tr>
<td>Outside Bandarlampung Municipality</td>
<td>2</td>
<td>2.00%</td>
</tr>
</tbody>
</table>

Source: Primary data, N = 12

Statistics analysis

Multiple Regression Analysis was used to process the primary data with the procedures described below. Validity test used the Kaiser-Mayer Olkin (KMO) to assess how well enough of a sample is used for factor analysis. According to (J. Hair & Alamer, 2022), adequate factor analysis is indicated by a KMO score between 0.50 and 1.00, but a value < 0.50 suggests inadequate factor analysis.

Table 3. Validity Test with Kaiser-Mayer Olkin

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total item</th>
<th>KMO</th>
<th>Factor Loading</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructures (X1)</td>
<td>10</td>
<td>0.902</td>
<td>0.716</td>
<td>Valid</td>
</tr>
<tr>
<td>Human resources quality (X2)</td>
<td>7</td>
<td>0.898</td>
<td>0.827</td>
<td>Valid</td>
</tr>
<tr>
<td>Administration process (X3)</td>
<td>3</td>
<td>0.609</td>
<td>0.867</td>
<td>Valid</td>
</tr>
<tr>
<td>Security (X4)</td>
<td>3</td>
<td>0.724</td>
<td>0.876</td>
<td>Valid</td>
</tr>
<tr>
<td>Overall healthcare that received by patients (X5)</td>
<td>5</td>
<td>0.816</td>
<td>0.856</td>
<td>Valid</td>
</tr>
<tr>
<td>Social responsibility (X6)</td>
<td>5</td>
<td>0.809</td>
<td>0.798</td>
<td>Valid</td>
</tr>
<tr>
<td>Patients' satisfaction (Y)</td>
<td>5</td>
<td>0.882</td>
<td>0.873</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Data process by SPSS

Reliability test of Cronbach’s Alpha was conducted by employing SPSS 28.0 software. The Cronbach's alpha coefficient has a universally accepted threshold of ≥ 0.70 and varies from 0 to 1. Furthermore, for exploratory research, it is permissible to have a Cronbach's alpha coefficient ≥ 0.60. According to (J. F. Hair et al., 2019), an instrument's reliability is deemed poor if its coefficient value is < 0.60.

Table 4. Reliability Test with Cronbach’s Alpha

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructures (X1)</td>
<td>0.908</td>
<td>Reliable</td>
</tr>
<tr>
<td>Human resources quality (X2)</td>
<td>0.939</td>
<td>Reliable</td>
</tr>
<tr>
<td>Administration process (X3)</td>
<td>0.766</td>
<td>Reliable</td>
</tr>
<tr>
<td>Security (X4)</td>
<td>0.863</td>
<td>Reliable</td>
</tr>
<tr>
<td>Variable</td>
<td>Cronbach’s Alpha</td>
<td>Remark</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Overall healthcare that received by patients (X5)</td>
<td>0.899</td>
<td>Reliable</td>
</tr>
<tr>
<td>Social responsibility (X6)</td>
<td>0.858</td>
<td>Reliable</td>
</tr>
<tr>
<td>Patients' satisfaction (Y)</td>
<td>0.897</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Data SPSS, author’s construction

Hypothesis testing utilized linear regression analysis, specifically employing the multiple regression model with seven independent variables impacting one dependent variable. The outcomes of the multiple linear regression analysis, aimed at examining the influence of hospital service quality dimensions on patient satisfaction, are presented in Table 5.

Hypothesis 1 scrutinizes the impact of hospital infrastructure quality dimensions on patient satisfaction. The findings of hypothesis testing 1 reveal a positive correlation between infrastructure and patient satisfaction. This is demonstrated by the noteworthy t-test value of 3.651 at 0.000, supporting hypothesis 1. The findings of this study support the notion that hospital infrastructure quality plays a crucial role in enhancing patient satisfaction (Ibrahim & Ahmed, 2019; Sumaedi et al., 2016). The significant positive correlation observed between hospital infrastructure quality and patient satisfaction underscores the importance of maintaining and upgrading facilities to create a conducive environment for patient care.

Hypothesis 2 investigates the relationship between hospital human resources quality dimensions and patient satisfaction. Contrary to expectations, outcomes of hypothesis testing 2 suggest that human resource quality does not affect patient satisfaction significantly. This is evident from the insignificant t-test value of 0.731 at 0.467, refuting hypothesis 2. This suggests that while human resource quality is crucial for operational efficiency, it might not directly translate to higher patient satisfaction. However, the study highlights the importance of focusing on soft skills such as employee-patient interaction, communication skills, and empathy to improve patient perceptions and satisfaction (Nasution et al., 2023). This includes ensuring that healthcare workers are equipped with the necessary skills to effectively communicate with patients and provide empathetic care, and ensuring that healthcare workers are approachable, friendly, and responsive to patient needs (Petre, 2020; Nasution et al., 2023).

Hypothesis 3 assesses the influence of hospital administrative process quality dimensions on patient satisfaction. The results of hypothesis testing 3 indicate a positive association between the administrative process and patient satisfaction. This is evident from the significant t-test value of 2.192 at 0.030, endorsing hypothesis 3. Efficient administrative processes likely contribute to a smoother patient experience, reducing wait times and administrative hassles. As administrative process affects the patient satisfaction, hospitals should invest in streamlining their administrative
procedures and implementing patient-centered practices to enhance satisfaction levels (Karaferis & Niakas, 2024).

Hypothesis 4 explores the impact of hospital safety quality dimensions on patient satisfaction. The findings of hypothesis testing 4 suggest that hospital safety indicators do not significantly influence patient satisfaction. This is evident from the non-significant t-test value of 0.305 at 0.761, contradicting hypothesis 4. This unexpected result suggests that patients may take safety standards as a given and thus do not perceive them as a differentiating factor in their satisfaction. However, maintaining high safety standards remains essential to prevent adverse events and ensure overall quality care (Danielsson et al., 2019; Mohammed et al., 2021).

Hypothesis 5 evaluates the effect of overall patient experience quality dimensions received by hospital patients on patient satisfaction. The results of hypothesis testing 5 indicate a positive relationship between overall patient experience and patient satisfaction. This is evidenced by the significant t-test value of 4.323 at 0.000, supporting hypothesis 5. This underscores the critical role of holistic patient experience in driving patient satisfaction. Consequently, hospitals should focus on comprehensive patient experience strategies, including personalized care, effective communication, and emotional support, to enhance overall satisfaction (Juyal et al., 2024; Karadag et al., 2015).

Hypothesis 6 examines the impact of hospital social responsibility quality dimensions on patient satisfaction. The outcomes of hypothesis testing 6 reveal a positive correlation between hospital social responsibility and patient satisfaction. This is evident from the significant t-test value of 2.924 at 0.004, validating hypothesis 6. This finding highlights the importance of hospitals' engagement in socially responsible activities, which can improve their reputation and foster goodwill among patients. Hospitals should consider integrating social responsibility initiatives into their strategic plans to boost patient satisfaction and community support as recommended by Fatima et al., (2018).

The Adjusted ∆ R results show a value of 0.813, this shows that the dimensions of hospital service quality explain the consumer satisfaction variable by 81.3%. Based on Table 5, the beta coefficients from the regression analysis show that overall patient experience (β = 0.338) and infrastructure quality (β = 0.262) are the most influential predictors, followed by social responsibility (β = 0.224) and administrative process quality (β = 0.126). Human resources quality (β = 0.057) and safety quality (β = 0.021) have less impact on patient satisfaction.
Table 5. Hypothesis Testing Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>-14.026</td>
<td>18.455</td>
<td>-0.76</td>
<td>0.449</td>
</tr>
<tr>
<td>X2</td>
<td>0.304</td>
<td>0.084</td>
<td>0.262</td>
<td>3.615</td>
</tr>
<tr>
<td>X3</td>
<td>0.056</td>
<td>0.077</td>
<td>0.057</td>
<td>0.731</td>
</tr>
<tr>
<td>X4</td>
<td>0.109</td>
<td>0.057</td>
<td>0.126</td>
<td>2.192</td>
</tr>
<tr>
<td>X5</td>
<td>0.021</td>
<td>0.068</td>
<td>0.021</td>
<td>0.305</td>
</tr>
<tr>
<td>X6</td>
<td>0.346</td>
<td>0.088</td>
<td>0.338</td>
<td>4.323</td>
</tr>
</tbody>
</table>

Source: Data processed SPSS. N=121. R = 0.902, ΔR-square = 0.813, Adjusted ΔR = 0.803, SE Estimated = 35.20014, Durbin-Watson = 2.096

Implications for Hospital Management

Infrastructures: The findings suggest that hospital management should prioritize infrastructure improvements and enhance overall patient experiences to significantly boost patient satisfaction. Ensuring that infrastructure is modern, well-maintained, and equipped with necessary medical and non-medical equipment is essential for providing high-quality services. This includes investing in patient-friendly facilities such as private examination rooms, comfortable waiting areas, and convenient access to medical services, all of which cater to the needs of patients. Additionally, enhancing patient satisfaction can be accomplished by maintaining high-quality services, ensuring patient safety, and fostering a positive hospital image.

Quality of human resources: Effective communication is critical in healthcare settings. Healthcare workers should be trained to communicate clearly and effectively with patients, ensuring that patients understand their conditions and treatment options. Empathy and compassion are essential in healthcare settings. Healthcare workers should be trained to understand and empathize with patients' emotional needs, providing a supportive environment for patients.

Administrative process: The results emphasize the importance of streamlining administrative processes to reduce wait times and administrative hassles. This includes implementing efficient processes for handling patient information, billing, and discharge procedures. The study highlights the need for hospitals to adopt patient-centered practices that prioritize patient needs and preferences. This includes providing clear communication, ensuring patient privacy, and addressing patient concerns in a timely manner.

Hospital safety indicators: The study emphasizes the importance of maintaining high safety standards despite the lack of significant correlation with patient
satisfaction. This includes ensuring that hospitals adhere to accreditation guidelines and implement robust safety protocols to prevent adverse events.

Overall patient experience: The study emphasizes the importance of comprehensive patient experience strategies that encompass personalized care, effective communication, and emotional support. This includes ensuring that healthcare workers are empathetic, responsive, and provide clear communication to patients. Hospitals should prioritize personalized care by tailoring services to individual patient needs, includes providing tailored treatment plans, addressing patient concerns, ensuring patient privacy, ensuring that patients are informed about their conditions, treatment options, and discharge procedures, providing emotional comfort, addressing patient fears and anxieties, and ensuring that patients feel supported throughout their care journey.

Hospital social responsibilities: The study emphasizes the need for hospitals to integrate social responsibility initiatives into their strategic plans. This includes implementing programs that benefit the local community, such as health education, community outreach, and charitable activities. It is also importance that hospitals are fostering goodwill among patients by engaging in socially responsible activities. This includes ensuring that patients feel that their needs are being met and that the hospital is committed to improving their health outcomes.

Conclusion
The study’s findings provide valuable insights into the factors influencing patient satisfaction in hospitals, specifically in Bandarlampung Municipality, Indonesia. Hospital infrastructure, administrative processes, overall patient experience, and social responsibility significantly impact patient satisfaction, indicating these areas should be prioritized by hospital management to enhance the overall quality of care. Improving infrastructure to be modern, well-maintained, and equipped with necessary medical and non-medical equipment is crucial. Streamlining administrative processes and adopting patient-centered practices can reduce wait times and enhance patient experiences, while comprehensive patient experience strategies, including personalized care and effective communication, are essential. Additionally, integrating social responsibility initiatives into strategic plans can foster goodwill and improve hospital reputation.

Although the direct impact of human resource quality and safety standards on patient satisfaction may not be as significant, their importance to operational efficiency and overall quality care remains critical. Future research should delve deeper into the quality of service from human resources, distinguishing between different categories such as staff, nurses, and doctors, to provide a more nuanced understanding of how each group’s performance impacts patient satisfaction. Maintaining high safety standards is imperative to prevent adverse events and ensure quality care. Adopting a comprehensive approach that addresses both tangible and intangible aspects of patient care can significantly improve patient
satisfaction and loyalty, thereby ensuring better health outcomes and a stronger reputation within the community.

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Appendix 1. Hospital service quality constructs

Infrastructure
a. The waiting rooms, examination rooms, clinics, operating theatres, and wards are exceptionally comfortable, safe, and clean.
b. The food provided is fresh and hygienic.
c. Both physical and non-physical facilities are of high quality.
d. The registration process for incoming patients and the handling of deceased bodies is efficient.
e. Ward spaces and beds are adequate and well-balanced for patients' needs.
f. Ambulance services are readily available and affordable.
g. The hospital layout is highly efficient.
h. Hospital technology is advanced.
i. Adequate provisions are made for electricity, water, and sanitation.
j. The blood bank is well-stocked and dependable.

Quality of Human Resources
a. Administrative officers and staff exhibit friendliness towards patients, their families, and visitors.
b. Staff members are proactive in addressing patient concerns and complaints.
c. Hospital facilities align with the information provided in hospital brochures.
d. Patient needs are attentively addressed by the hospital.
e. Doctors and nurses demonstrate high competence in their roles.
f. Hospital treatment procedures are thoroughly explained and adequate.
g. Doctors, nurses, and staff display sincerity in their interactions with patients.

Administrative Process
a. Waiting times for test results are notably short.
b. Administrative procedures are streamlined and straightforward.
c. Occurrences of surgical delays due to doctor or operating room unavailability are infrequent.
d. Feedback or responses from the hospital are prompt.
e. Patient rights are prioritized above all else.

Security
a. The hospital strictly adheres to a patient allergy policy.
b. All equipment and staff maintain high standards of hygiene and adhere to procedures (such as handwashing).
c. The hospital is particularly accommodating to individuals with disabilities.
d. Overall Experience
e. Patients would readily recommend the hospital to friends and family.
f. The costs associated with the hospital's services are considered reasonable.
g. The current standard of hospital services surpasses that of other facilities.
h. Costs are perceived as reasonable considering the quality of service received.
i. Hospital doctors demonstrate a deep understanding of the importance of patient care.

Social Responsibility
a. Medical care is administered fairly to all patients.
b. The hospital prioritizes value for money and the quality of service.
c. The hospital continues to serve patients irrespective of economic factors.
d. Ethical service is extended to patients from all social strata.
e. Patient privacy and confidentiality are diligently maintained.

Satisfaction
a. Patients express satisfaction with administrative processes, accommodation, treatment, and discharge procedures.
b. High levels of satisfaction are reported regarding healthcare provided by doctors and nurses.
c. Patients are satisfied with the responsiveness and efficiency of staff and administration.
d. Satisfaction is evident with hospital costs, perceived to align with the quality of care received.
e. Patients appreciate the comfort and cleanliness of their stay as well as the efforts of environmental and cleaning staff.