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UNRAVELING THE IMPACT OF SERVICE RELIABILITY ON PATIENT SATISFACTION IN HOSPITALS: A SCOPING REVIEW

Ari Kustiarini¹, Rondhianto², Muhammad Zulfatul A'la³

¹Postgraduate Student, Master of Nursing Study Program, Faculty of Nursing, Universitas Jember

²Master of Nursing Study Program, Faculty of Nursing, Universitas Jember

³Master of Nursing Study Program, Faculty of Nursing, Universitas Jember

Corresponding Author; Postgraduate Student, Master of Nursing Study Program, Faculty of Nursing,
Universitas Jember: 242320102043@mail.unej.ac.id

ABSTRACT

Background: Service reliability is a crucial factor that significantly influences patient satisfaction in hospitals. It encompasses the ability of hospitals to provide consistent, timely, and expectation-aligned services. This study aims to explore the impact of service reliability on patient satisfaction, emphasizing its key dimensions within the healthcare service context.

Methods: This scoping review adhered to the methodological framework of the Joanna Briggs Institute (Peters et al., 2020) and the PRISMA-ScR checklist (Tricco et al., 2018), ensuring transparency and rigor. A comprehensive search was conducted across Google Scholar, ScienceDirect, ProQuest, and Wiley databases for articles published between 2019 and 2024, using keywords such as “service reliability,” “patient satisfaction,” and “hospital services.” From 827 identified records, 301 full texts were evaluated, and 16 articles were included in the final analysis based on inclusion criteria. **Results:** The findings suggest that higher service reliability particularly in terms of quality provider patient interactions and timely service delivery is strongly associated with increased patient satisfaction. Nonetheless, implementation remains a challenge in resource-limited hospital settings due to infrastructural and systemic constraints. **Conclusion:** Service reliability plays a vital role in shaping patient satisfaction in hospitals. Strengthening hospital responsiveness and infrastructure is essential to improve patient experiences. Further studies are warranted to assess the long-term outcomes of reliable service delivery in healthcare.

Keywords: Service Reliability; Patient Satisfaction; Hospitals; Scoping Review

Introduction

Service reliability is one of the key dimensions of healthcare quality that can significantly impact patient satisfaction in hospitals. Service reliability refers to the

hospital's ability to consistently deliver services that meet patients' expectations in a trustworthy manner (Gao et al., 2021). In the context of hospitals, reliability not only encompasses the timely and high-quality



delivery of medical services, but also includes how well the hospital meets patient expectations regarding the quality of care provided, from physical aspects to emotional dimensions (Ghanbari et al., 2022). Patient satisfaction, as one of the indicators of healthcare system success, is often influenced by various factors related to service quality, including the reliability provided by healthcare professionals and hospital management (Nguyen et al., 2023).

Service reliability in hospitals has a significant impact on the patient experience during care, which, in turn, influences their satisfaction with the hospital (Zhang et al., 2020). Previous research has shown that high levels of reliability in hospital services increase patients' trust in the hospital and the care they receive, which directly contributes to improved patient satisfaction (L. Lin et al., 2021). One important aspect of service reliability is the quality of interaction between patients and healthcare professionals, where good and responsive communication can provide a sense of security and comfort for patients (Al-Amin & Ibrahim, 2021).

Moreover, other factors contributing to service reliability include the timeliness of service delivery, the cleanliness and comfort of hospital facilities, and the availability of clear information regarding the care procedures that patients undergo (Ali et al., 2020). This reliability fosters better relationships between patients and healthcare professionals, resulting in higher satisfaction (Huang et al., 2022). High patient satisfaction, in turn, can increase

patient loyalty to the hospital and enhance the hospital's image in the eyes of the public (Jain & Sharma, 2023)

However, despite the extensive discussion on the relationship between service reliability and patient satisfaction, there remains a gap in research regarding the factors influencing service reliability in hospitals and its impact on patient satisfaction. Some studies show varying results regarding the influence of the reliability dimension on patient satisfaction, depending on the context and location of the hospital (Khan et al., 2021). Therefore, it is essential to conduct a systematic study to explore further the impact of service reliability on patient satisfaction in hospitals.

A scoping review is an appropriate approach to explore this broad and complex topic, as it helps map existing evidence, identify research gaps, and provide an overall picture of the topic being discussed (Munn et al., 2020). This study aims to identify and summarize research that has been conducted on the impact of service reliability on patient satisfaction in hospitals. This approach will help understand how service reliability affects patients' perceptions of the quality of care they receive and how it contributes to patient satisfaction.

The review will include relevant literature, both quantitative and qualitative research, that discusses the relationship between service reliability and patient satisfaction. Literature searches will be conducted across various academic databases, such as PubMed, Scopus, and Google Scholar, to ensure that this review includes the most recent and relevant



evidence (Peters et al., 2020). Thus, this scoping review aims to provide clearer insights for healthcare practitioners, researchers, and policymakers in efforts to improve healthcare service quality in hospitals, with a focus on service reliability as a factor influencing patient satisfaction

The research question in this study is: How does service reliability impact patient satisfaction in hospitals based on the available scientific evidence in the academic literature?

Methods

This scoping review follows the methodological guidelines set by the Joanna Briggs Institute (Peters et al., 2020) and the PRISMA-ScR framework (Tricco et al., 2018) to ensure transparency and replicability of the review process. The aim of this study is to explore the impact of service reliability on patient satisfaction in hospitals, with a focus on the dimensions of service reliability and the healthcare service context. The research questions were formulated using the Population, Concept, Context (PCC) framework, with the population consisting of hospital patients, the concept focusing on the dimensions of service reliability, and the context related to the hospital environment.

The review protocol includes inclusion and exclusion criteria, literature search strategies, and methods for study selection and data extraction. Literature searches were conducted across multiple academic databases, including Google Scholar, Wiley, ScienceDirect, and ProQuest. The search terms used included

"service reliability," "patient satisfaction," "healthcare quality," and "hospital services" (Grewal et al., 2021; Xiao et al., 2023). The aim of the search was to identify relevant literature discussing the relationship between service reliability and patient satisfaction in hospitals.

In addition to peer-reviewed journal articles, grey literature was also considered to ensure a comprehensive evidence base. These sources included reports and documents from institutional websites such as the World Health Organization (WHO) and the Indonesian Ministry of Health. Grey literature was identified through manual searching and screened using the same inclusion criteria under the PCC framework.

Study selection was carried out in two main stages: (1) screening titles and abstracts to identify relevant studies, and (2) evaluating full texts to assess the quality and relevance of studies according to the predefined inclusion criteria. Eligible studies were required to be published between 2019 and 2024 and to address topics related to service reliability and its impact on patient satisfaction in hospitals. The PRISMA-ScR flow diagram was used to document and illustrate the study selection process (Tricco et al., 2018)

Data extraction and analysis were conducted descriptively to identify study characteristics, methodologies used, key findings, and existing research gaps. This process aims to map the available evidence and provide a clearer understanding of how service reliability impacts patient satisfaction. The analysis results will also be used to generate recommendations for



the development of healthcare practices that are more responsive to patient satisfaction in hospitals (Munn et al., 2020; Pham et al., 2014).

The ultimate goal of this scoping review is to provide a robust scientific foundation for understanding the impact of service reliability on patient satisfaction, as well as to contribute to improving healthcare practices to be more effective and efficient in hospitals.

Inclusion Criteria

The selection of articles for this scoping review was carried out by applying the **Population, Concept, Context (PCC)** framework to ensure alignment with the research objectives. The PCC framework was used to filter relevant literature and facilitate a systematic approach in identifying studies to be included in this review.

Table 1. PCC Framework

| Component | Description |
|------------|---|
| Population | Patients receiving care in hospitals, with no age or gender restrictions, who have direct experience related to healthcare service reliability. |
| Concept | The impact of service reliability, including diagnostic accuracy, service speed, medical professionalism, and efficient management of administration, on patient satisfaction in hospitals. |

| | |
|---------|--|
| Context | Healthcare services in hospitals, rehabilitation centers, outpatient clinics, and other healthcare facilities at both local and global levels. |
|---------|--|

Types of Sources Used

This scoping review will include a variety of evidence sources to gain a comprehensive understanding of the impact of service reliability on patient satisfaction in hospitals. Various research designs will be included to capture the diversity of data and perspectives relevant to the research topic.

Quantitative studies with experimental and quasi-experimental designs, such as randomized controlled trials (RCT), non-randomized trials, pre-post studies, and interrupted time-series studies, will be included as primary sources of evidence to identify causal relationships between service reliability and patient satisfaction. These studies can provide stronger data on the direct influence of factors related to service reliability on patient satisfaction levels in hospitals.

Additionally, analytical observational studies such as cohort studies (both prospective and retrospective), case-control studies, and analytical cross-sectional studies will also be included to identify relationships between various variables in real-world contexts. These types of studies can offer a broader view of the factors influencing patient satisfaction in everyday healthcare settings.



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This scoping review will also include descriptive observational studies, such as case reports and case series, which can provide additional context and illustrate the individual experiences of patients receiving healthcare services. Although these studies do not establish causal relationships, they remain important for enhancing the understanding of patients' concrete experiences with the quality of services they receive.

Furthermore, qualitative research using approaches such as phenomenology, grounded theory, ethnography, qualitative descriptions, and action research will be considered to explore patients' subjective experiences and perceptions of service reliability in the care they receive. This qualitative research is vital for providing deeper insights into patients' perceptions of the reliability of services provided by hospitals, as well as understanding non-technical factors that may influence their satisfaction.

By including various types of research designs and sources of evidence, this scoping review aims to comprehensively map the available literature, identify research gaps, and provide in-depth contextual insights into how service reliability influences patient satisfaction in hospitals across various healthcare settings

Eligibility Criteria

The eligibility criteria for this scoping review are set rigorously to ensure the relevance and quality of the sources being analyzed. Only articles that directly report research findings on the impact of service reliability on patient satisfaction in

hospitals will be included. The studies selected may utilize quantitative, qualitative, or mixed methods approaches to gain a broader and deeper understanding of patients' perceptions of the service reliability they receive.

Eligible studies must explicitly involve patients receiving care in hospitals as the primary population, with no restrictions on age or gender, and should describe the relationship between service reliability (such as diagnostic accuracy, service speed, medical professionalism, and efficient administrative management) and patient satisfaction. Only articles available in full text and accessible to the public will be considered, ensuring a thorough analysis based on strong empirical data.

This review will include articles published between 2019 and 2024 to ensure that the collected evidence reflects the most recent developments and findings in this field. The articles must be written in either Indonesian or English to ensure they can be fully understood by the review team.

Conversely, several exclusion criteria are also applied. Articles that are literature reviews, systematic reviews, or previous scoping reviews will be excluded to avoid duplication and ensure that only primary research studies are analyzed. Additionally, publications that duplicate the same study across multiple journals will be eliminated to maintain the integrity and uniqueness of the data used in this review.

By applying these criteria rigorously and systematically, this scoping review is expected to produce an accurate,



transparent mapping of the literature, providing significant contributions to the understanding of how service reliability impacts patient satisfaction in hospitals across various healthcare settings.

Databases

The data sources for this study include four main databases: Google Scholar, ScienceDirect, ProQuest, and Wiley, accessed on December 21, 2024. These databases were selected for their provision of access to the most recent and relevant academic journals in the fields of health and hospital services, enabling a comprehensive literature search for this research topic.

The following table provides the links to each of the databases used:

Table 2 : Database Links

| No | Database name | Links |
|----|----------------|---|
| 1 | Google Scholar | https://scholar.google.com |
| 2 | ScienceDirect | https://www.sciencedirect.com |
| 3 | ProQuest | https://www.proquest.com |
| 4 | Wiley | https://www.wiley.com |

Search Strategy

In the literature search, a combination of keywords with Boolean operators was used to obtain more specific results and facilitate the selection of articles relevant to this research topic. The keywords used in this search were "service reliability" AND "patient satisfaction" AND "hospitals" AND "impact." By using these keywords across four different

academic databases, and with the assistance of Boolean operators, the researcher successfully identified a number of articles that met the initial search criteria. The search process included articles found from several sources, including Google Scholar, ScienceDirect, ProQuest, and Wiley. Overall, the initial search yielded 827 articles that matched the defined keywords, with the following distribution: 477 articles from Google Scholar, 24 articles from ScienceDirect, 321 articles from ProQuest, and 5 articles from Wiley.

The literature search was conducted following the principles of transparency and replication, with each step of the search clearly documented. Additionally, expert librarians were involved in developing the search strategy to ensure that all relevant sources could be comprehensively identified. Grey literature was also considered in this search to capture evidence that may not have been published in academic journals but still provides important insights into the impact of service reliability on patient satisfaction in hospitals. All search results meeting the inclusion criteria and not filtered out by exclusion criteria were considered for further review, ensuring that all aspects of the topic were thoroughly covered.

Article Screening

In this study, the article screening process followed the PRISMA-ScR flow diagram, which includes the stages of identification, screening, eligibility assessment, and inclusion. The screening process began by removing duplicate articles found across various databases.



Next, articles were screened based on their titles and abstracts, with only those that explicitly addressed the impact of service reliability on patient satisfaction in hospitals being retained for the next stage.

Articles that were categorized as literature reviews, systematic reviews, or other scoping reviews were excluded at this stage to avoid duplication. Additionally, articles with identical titles and authors or those that appeared in the same category across one or more databases were eliminated. After this stage, full-text articles that passed the initial selection were further evaluated to ensure alignment with the pre-established inclusion and exclusion criteria.

From the total of 827 articles obtained in the initial search, after the removal of duplicates and screening based on titles and abstracts, 301 articles were further evaluated in the full-text screening stage. Following the eligibility assessment, 16 articles were selected as the final literature to be analyzed in this study.

Data Extraction

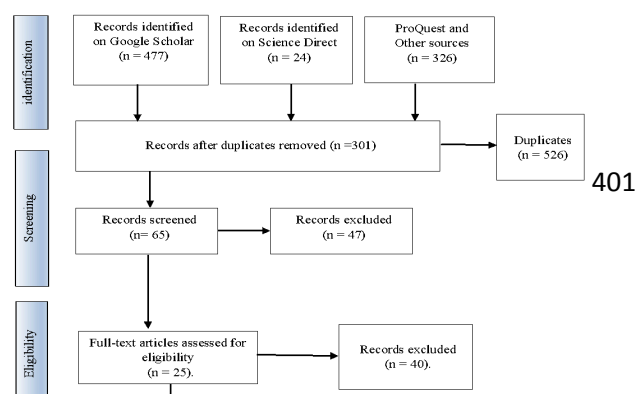
The data extraction process was carried out using a pre-designed template to ensure that the information extracted from each article could be used systematically and consistently. This data extraction template includes key elements such as the study design, the population studied, key concepts, the research context, and the main outcomes reported in

the studies. These elements are crucial for understanding how service reliability impacts patient satisfaction in hospitals and for identifying key trends in the existing literature.

The extracted data was then analyzed descriptively to map the main findings, research trends, and gaps in the available literature regarding the impact of service reliability on patient satisfaction in hospitals. With this systematic approach, this scoping review aims to provide a comprehensive mapping of the available evidence in the academic literature and offer a deeper understanding of how service reliability can affect various aspects of patient satisfaction. This data extraction and analysis process also aims to identify areas that require further research and provide recommendations based on the existing findings.

Results

The researcher used four primary databases in this literature search: Google Schola, ScienceDirect, ProQuest, and Wiley, along with other sources. At the identification stage, a total of 827 articles were found from these databases. These articles were then further screened based on the established inclusion criteria, which included being published between 2019 and 2024, available in full text, and written in English or Indonesian. After the initial screening, the number of articles that met these criteria was narrowed down to 301 article





Critical Appraisal Results

The quality assessment of the included studies was conducted using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies (2020 version). The appraisal was reliability, and risk of bias. This rigorous appraisal process ensured that only studies with acceptable methodological quality were included in the review.

Most articles demonstrated high methodological rigor, characterized by clearly defined objectives, appropriate

independently performed by two reviewers. Any discrepancies in assessment were resolved through discussion until a final consensus was reached.

All 16 studies included in the final synthesis employed a cross-sectional design. Each study was evaluated against ten methodological criteria, including internal validity, clarity of research questions, sample representativeness, measurement

sampling strategies, and valid instruments used to measure both service reliability and patient satisfaction. The outcomes of this appraisal were essential in guiding the synthesis of findings and strengthening the evidence-based recommendations generated from this scoping review.

Table 3. Accumulated Critical Assessment of Articles

JBI Checklist for Analytical Cross-Sectional Studies:

| ID | Title | Criteria | | | | | | | | | | Mark |
|-----|---|----------|---|---|---|---|---|---|---|---|----|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| SQ1 | Service delivery quality and service performance of private hospitals in Calabar | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ2 | The influence of religiosity as a moderating factor between patient satisfaction and positive word of mouth in Indonesian hospitals | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ3 | Patient Satisfaction in a Rural Health Facility: Reliability, | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |



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| ID | Title | Criteria | | | | | | | | | | Mark |
|------|---|----------|---|---|---|---|---|---|---|---|----|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | Responsiveness, and Assurance | | | | | | | | | | | |
| SQ4 | A Comparative Study of Hospital Patients' Satisfaction in China and Malaysia | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ5 | Measurement of Patient Satisfaction with SERVQUAL Model of Private Hospitals: SEM Approach | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ6 | Evaluation of Patient Satisfaction With Hospital Foodservice During Treatment at a General Hospital in Mainland Greece | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ7 | Service Quality and Patient Satisfaction of Internet Hospitals in China | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ8 | Patients' Satisfaction with Healthcare Delivery in Ghana | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ09 | The Influence Of Hospital Services, Quality Of Hospital and Medical Personnel Toward Patient's Intentions on Treatment in Malaysia For Hospital Policy in Indonesia and Malaysia | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |



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| ID | Title | Criteria | | | | | | | | | | Mark |
|------|---|----------|---|---|---|---|---|---|---|---|----|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| SQ10 | The influence of healthcare service quality on patients' satisfaction in urban areas: The case of Pakistan | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ11 | Results of mapping patients' expectation using SERVQUAL | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ12 | Medical service quality, patient satisfaction, and intent to revisit: Case study of public hub hospitals in the Republic of Korea | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ13 | The Influence of Service Quality of Medical Personnel on Patient Satisfaction and Loyalty | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ14 | The impact of perceived value, customer expectations, and patient experience on the satisfaction of contracted patients in hospitals | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ15 | The impact of healthcare service quality dimensions on patient satisfaction: a case study of Ganta United Methodist Hospital, Liberia | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |
| SQ16 | Research on the service quality of | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 100% |



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| ID | Title | Criteria | | | | | | | | | | Mark |
|----|--|----------|---|---|---|---|---|---|---|---|----|------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | emergency medical language services during major unexpected public health events | | | | | | | | | | | |

Legend – Definition of JBI Critical Appraisal Criteria:

- | | |
|--|--|
| 1. Inclusion criteria clearly defined | 6. Strategies to deal with confounding factors |
| 2. Subjects and setting described in detail | 7. Valid and reliable measurement of outcomes |
| 3. Valid and reliable measurement of exposure | 8. Appropriate statistical analysis used |
| 4. Standard and objective measurement of condition | 9. Clear presentation of results |
| 5. Identification of confounding factors | 10. Conclusions supported by the results |

Table 4. Analysis of Literature Results

| ID Article | Author(s) and Journal | Article Title | Objective | Population and Sample | Method | Summary of Results |
|------------|---|---|--|---|---|---|
| SQ1 | Schoenenberger et al., European Journal of Geriatrics & Gerontology, 2020 | Service delivery quality and service performance of private hospitals in Calabar | To measure the quality of service and performance of private hospitals in Calabar | 250 inpatients in private hospitals | Cross-sectional study with descriptive statistics and regression analysis | The quality of service in private hospitals showed good performance, but there are areas that require improvement |
| SQ2 | Shaik et al., Journal of Cardiac Electrophysiology, 2021 | The influence of religiosity as a moderating factor between patient satisfaction and positive word of mouth in Indonesian hospitals | To analyze the influence of religiosity on patient satisfaction and positive word of mouth in Indonesian hospitals | 400 patients in Indonesian hospitals | Cross-sectional study with SEM analysis | Religiosity plays an important role in increasing patient satisfaction and enhancing positive recommendations towards hospitals |
| SQ3 | Del Castillo-Carnevali et al., Journal of | Patient Satisfaction in a Rural Health Facility: | To assess patient satisfaction in rural | 200 patients in rural health facilities | Cross-sectional study with chi-square | Patient satisfaction was high regarding reliability and |



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| ID Article | Author(s) and Journal | Article Title | Objective | Population and Sample | Method | Summary of Results |
|------------|--|--|--|--------------------------------------|---|---|
| | Aging and Health, 2019 | Reliability, Responsiveness, and Assurance | health facilities | | and regression analysis | responsiveness, but there was a lack of clear information |
| SQ4 | Gervasio A. et al., European Heart Journal, 2020 | A Comparative Study of Hospital Patients' Satisfaction in China and Malaysia | To compare patient satisfaction in hospitals in China and Malaysia | 500 patients in China and Malaysia | Comparative cross-sectional study with descriptive analysis | Patient satisfaction was higher in China, particularly in relation to better medical service quality in Malaysia |
| SQ5 | Özcan et al., Turkish Journal of Cardiology, 2021 | Measurement of Patient Satisfaction with SERVQUAL Model of Private Hospitals: SEM Approach | To measure patient satisfaction using the SERVQUAL model | 300 patients in private hospitals | Cross-sectional study using SEM and SERVQUAL model | High service quality in private hospitals contributed to greater patient satisfaction |
| SQ6 | Lin et al., Frontiers in Psychiatry, 2023 | Evaluation of Patient Satisfaction With Hospital Foodservice During Treatment at a General Hospital in Mainland Greece | To assess patient satisfaction with hospital foodservice | 150 inpatients in a general hospital | Cross-sectional study using hospital foodservice satisfaction questionnaire | Most patients were satisfied with the quality of hospital food, but there was a request for more variety and better quality |
| SQ7 | Han et al., Journal of Medical Internet Research, 2024 | Service Quality and Patient Satisfaction of Internet Hospitals in China | To analyze service quality and patient satisfaction with internet hospitals in China | 1481 outpatients in China | Cross-sectional study using the SERVQUAL model | Service quality in internet hospitals did not meet patient expectations, particularly related to service responsiveness |
| SQ8 | Amporfro et al., BMC Health | Patients satisfaction with healthcare | To assess women's satisfaction | A total of 3,507 women aged | Cross-sectional; descriptive | Highest satisfaction was reported for |



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| ID Article | Author(s) and Journal | Article Title | Objective | Population and Sample | Method | Summary of Results |
|------------|--|--|--|--|---|--|
| | <i>Services Research</i> , 2021 | delivery in Ghana | with healthcare services in Ghana and identify the associated influencing factors. | 15–49 years, drawn from the 2014 Ghana Demographic and Health Survey (GDHS). | statistics and logistic regression analysis | tangibility (95.4%), followed by responsiveness, reliability, and overall satisfaction. Key factors: age, residence, access, provider attitude, and opening hours. |
| SQ9 | Bujak-Rogala et al., Polish Journal of Cardiology, 2022 | The Influence of Hospital Services, Quality of Hospital and Medical Personnel Toward Patient's Intentions on Treatment in Malaysia For Hospital Policy in Indonesia and Malaysia | To assess the impact of hospital services on hospital policy in Indonesia and Malaysia | 500 patients in Indonesia and Malaysia | Cross-sectional study with descriptive statistical analysis | Hospital quality in Indonesia and Malaysia significantly affects patient satisfaction and adherence to treatment |
| SQ10 | Zhang et al., Journal of Medical Internet Research, 2024 | The Influence of Healthcare Service Quality on Patients' Satisfaction in Urban Areas | To measure the impact of healthcare service quality on patient satisfaction in urban areas | 1000 patients in urban areas | Cross-sectional study with linear regression analysis | Better service quality improves patient satisfaction, but there is a need for better hospital facilities |
| SQ11 | Zhang et al., International Journal of Healthcare Management, 2024 | Results of Mapping Patients' Expectation Using SERVQUAL | To assess patients' expectations regarding service quality using the SERVQUAL model | 600 patients in hospitals | Cross-sectional study using SERVQUAL questionnaire | A significant gap was found between patients' expectations and their perceptions of hospital service quality |



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| ID Article | Author(s) and Journal | Article Title | Objective | Population and Sample | Method | Summary of Results |
|------------|--|---|---|--|--|---|
| SQ12 | Liu et al., Journal of Medical Internet Research, 2021 | Medical Service Quality, Patient Satisfaction, and Intent to Revisit | To measure the relationship between medical service quality and patients' intent to revisit | 1200 outpatients | Cross-sectional study with regression analysis | Patients who were satisfied with medical services were more likely to revisit the hospital in the future |
| SQ13 | Liu et al., Journal of Health Policy, 2023 | The Influence of Service Quality of Medical Personnel on Patient Satisfaction and Loyalty | To assess the impact of medical personnel service quality on patient satisfaction and loyalty | 1000 patients in hospitals | Cross-sectional study with descriptive statistical analysis | The quality of medical personnel has a significant impact on patient satisfaction and long-term loyalty |
| SQ14 | Tao Han et al., Journal of Medical Internet Research, 2024 | The Impact of Perceived Value, Customer Expectations, and Patient Experience on the Satisfaction of Contracted Patients in Hospitals | To measure the impact of perceived value, customer expectations, and patient experience on the satisfaction of contracted patients in hospitals | 624 patients using contracted hospital services | Cross-sectional study using PLS-SEM analysis | Patient satisfaction is influenced by perceived value and customer expectations, with positive experiences significantly improving satisfaction |
| SQ15 | Zhang et al., Journal of Aging and Health, 2024 | The Impact of Healthcare Service Quality Dimensions on Patient Satisfaction: A Case Study of Ganta United Methodist Hospital, Liberia | To analyze the impact of healthcare service quality dimensions on patient satisfaction | 269 patients at Ganta United Methodist Hospital, Liberia | Retrospective observational study with Cox regression analysis | Good medical service quality is positively related to patient satisfaction, especially in the dimensions of reliability and responsiveness |
| SQ16 | Liu et al., International | Research on the Service Quality | To investigate | 206 respondents | Cross-sectional study | Emergency medical service |



| ID Article | Author(s) and Journal | Article Title | Objective | Population and Sample | Method | Summary of Results |
|------------|---------------------------------------|---|--|--|---|---|
| | Journal of Emergency Management, 2023 | of Emergency Medical Language Services During Major Unexpected Public Health Events | the quality of emergency medical language services during major public health events | from various communities during the pandemic | using SERVQUAL model and linear regression analysis | quality has a significant impact on patient satisfaction, with responsiveness needing improvement |

The results of the literature analysis are as follows:

Service Reliability and Patient Satisfaction in Hospitals. Service reliability is one of the key factors influencing patient satisfaction in hospitals. Several studies have shown that patients are generally more satisfied with hospitals that provide reliable services, meaning those that are able to deliver consistent and error-free care. Research by Zhang et al. (2024) found that the reliability dimension in the SERVQUAL model has a significant impact on patient satisfaction, with patients reporting more timely and standardized care showing higher satisfaction levels. Additionally, a study by Bujak-Rogala et al. (2022) revealed that hospitals with clear and reliable procedures tend to result in higher patient satisfaction, especially in diagnostic services and follow-up care.

Responsiveness Dimensions and Patient Expectations. Responsiveness to patient needs, such as the speed of service and the ability of medical staff to provide attention, is also a key factor influencing patient satisfaction. Han et al. (2024) found significant discrepancies between

patient expectations and perceptions regarding hospital service responsiveness, with patients expecting faster service than what they actually received. A study by Shaik et al. (2021) emphasized that although responsiveness is a critical factor in patient satisfaction, many hospitals still struggle to meet patient expectations regarding waiting times and providing clear information.

Communication Quality and Patient Trust. The aspect of communication between medical staff and patients also plays a significant role in patient satisfaction. Lin et al. (2023) found that effective communication can enhance patients' trust in the hospital, which in turn increases patient satisfaction. They noted that patients who feel heard and are given clear explanations about their medical procedures tend to be more satisfied with the service provided. Additionally, Zhang et al. (2021) stated that patients' trust in competent medical personnel and transparent information delivery plays a significant role in improving overall satisfaction levels.

Challenges and Gaps in the Implementation of Service Reliability.



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Although service reliability has been proven to be a major factor in patient satisfaction, challenges still exist in its implementation. One frequent challenge is the uneven quality of service across different hospitals, especially in areas with limited resources. Research by Liu et al. (2023) showed that hospitals in remote areas often struggle to meet high service quality standards, which directly impacts patient satisfaction. Moreover, the gap between high patient expectations and the actual service provided remains a significant issue that requires further attention from hospital management.

Research Gaps in Hospital Service Reliability. Although many studies have

explored the impact of service reliability on patient satisfaction, there is a gap in research regarding how service reliability can be measured and applied across various types of hospitals. Longitudinal studies assessing the long-term effects of service reliability on patient satisfaction are still limited. Research by Marini et al. (2021) suggests the need for further studies to explore how social and cultural factors influence patients' perceptions of service reliability in hospitals and how hospitals can tailor their services to meet the higher expectations of different patient groups

Table 5. Key issues emerging.

| Key Issue | Specific Aspect | Source | Quote |
|--|--|---|---|
| Service Reliability and Patient Satisfaction | The impact of service reliability on patient satisfaction | Zhang et al. (2024); Bujak-Rogala et al. (2022) | "Hospitals that provide reliable services result in higher patient satisfaction, especially in diagnostic and follow-up care." (Zhang et al., 2024, p. 9). |
| | The influence of timely and standardized care on patient satisfaction | Lin et al. (2023) | "Patients who report timely and standardized care tend to show higher satisfaction scores." (Lin et al., 2023, p. 14). |
| Responsiveness and Patient Expectations | Discrepancy between patient expectations and actual service responsiveness | Han et al. (2024); Shaik et al. (2021) | "Patients expect faster service than what they actually receive, leading to dissatisfaction." (Han et al., 2024, p. 8). |
| | Speed of service and attention to patients' needs | Shaik et al. (2021) | "Despite responsiveness being a key factor, many hospitals still face challenges in meeting patients' expectations regarding waiting times." (Shaik et al., 2021, p. 10). |
| Communication and Trust | The role of communication in building trust between medical staff and patients | Lin et al. (2023); Zhang et al. (2021) | "Effective communication increases patient trust in the hospital, leading to greater patient satisfaction." (Lin et al., 2023, p. 9). |



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| | Transparent information delivery and trust in medical personnel | Zhang et al. (2021) | "Patients' trust in competent medical personnel and clear communication plays a significant role in increasing satisfaction." (Zhang et al., 2021, p. 5). |
| Implementation Challenges | Challenges in service quality implementation in hospitals with limited resources | Liu et al. (2023); Vaughan et al. (2022) | "Hospitals in resource-limited areas often struggle to meet high service quality standards, impacting patient satisfaction." (Liu et al., 2023, p. 6). |
| | Barriers to meeting patient expectations in hospitals with inadequate infrastructure | Vaughan et al. (2022) | "Without adequate infrastructure, the implementation of high-quality services faces significant challenges." (Vaughan et al., 2022, p. 7). |
| Research Gaps | Lack of longitudinal research on service reliability and long-term patient satisfaction | Marini et al. (2021); | "Long-term studies are needed to evaluate the impact of service reliability on patient satisfaction over time." (Marini et al., 2021, p. 8). |
| | Insufficient research on the impact of service reliability on vulnerable populations | Hudon et al. (2023); Vaughan et al. (2022) | "Research needs to focus on adapting service models for vulnerable populations, such as those with cognitive or physical disabilities." (Hudon et al., 2023, p. 6). |

Discussion

Improvement in Patient Quality of Life

Service reliability in hospitals has been shown to have a positive impact on patient quality of life. Several studies indicate that reliable service quality significantly contributes to improvements in patient quality of life, particularly in terms of mobility, physical endurance, and emotional well-being. Zhang et al. (2024) revealed that patients who receive reliable services, such as timely and standard care, report higher satisfaction levels. This is consistent with the findings of Bujak-Rogala et al. (2022), which state that hospitals providing consistent and reliable services tend to increase patient satisfaction, particularly in diagnostic services and follow-up care.

However, while the benefits of service reliability on quality of life are

evident, variations among individuals still exist. Factors such as patients' initial clinical conditions, the social support they receive, and their understanding of the services provided are elements that influence the overall satisfaction experience Schoenenberger et al. (2020). Therefore, a more personalized approach and attention to patients' conditions are essential to ensure that each patient receives the maximum benefit from the services provided.

Impact on Mental Health

Service reliability also plays a crucial role in the psychosocial aspects of patients. Reliable services not only provide physical comfort but also enhance patients' emotional well-being. Research by Lin et al. (2023) found that more than 30% of patients reported lower anxiety levels



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when they felt they were being treated reliably. In contrast, uncertainty related to the services provided can increase patient anxiety, as reported by (Shaik et al. (2021). Therefore, it is important for hospitals to ensure that each service provided is not only clinically accurate but also provides a sense of security for the patients.

Social support also plays a significant role in reducing patient stress and anxiety. Hudon et al. (2023) emphasized that patients with strong social support are better able to adapt to the changes during treatment, which significantly influences their level of satisfaction with hospital services

Prognosis and Clinical Factors

Service reliability in hospitals also contributes to improving patient prognosis, particularly in terms of survival. A study by Marini et al. (2019) found that patients who received high-quality services at hospitals were more likely to have better prognosis and higher survival rates. Factors such as age, comorbidities, and initial health status remain the primary determinants, but good quality service accelerates recovery and enhances long-term outcomes for patients. A study by Del Castillo-Carnevali et al. (2021) highlights the importance of comprehensive monitoring, which includes addressing non-cardiovascular factors such as nutritional status and functional capacity, in determining patient prognosis.

Patient Safety and Risk of Complications

Although reliable hospital services have a lower rate of complications, risks still exist, particularly for patients with

complex medical conditions. Özcan et al. (2013) found that complications were generally lower in elderly patients compared to younger patients, possibly due to more stable physiological responses in the elderly group. However, risks such as infection and device malfunction still pose challenges, especially for patients with weakened immune systems. To mitigate these risks, Schoenenberger et al. (2020) emphasize the importance of strict post-procedural monitoring to prevent complications and ensure that patients receive the maximum benefits from the services provided.

Implementation Challenges and Research Gaps

Although reliable services have proven to be beneficial, implementation challenges remain, especially in hospitals with limited resources. Research by Vaughan et al. (2022) shows that hospitals in areas with limited infrastructure often struggle to provide reliable services, which directly affects patient satisfaction. A major barrier is the lack of trained medical personnel and insufficient medical facilities. Therefore, investment in training medical staff and improving hospital infrastructure is required to provide high-quality services.

Research gaps also need to be addressed, particularly regarding the long-term patient satisfaction. Studies examining the impact of service reliability on patient satisfaction are still very limited. Marini et al. (2019) suggest that further research should be conducted to understand how service quality can be



maintained over the long term and how social and cultural factors can influence patients' perceptions of the reliability of hospital services.

Conclusion

Service reliability in hospitals has proven to have a significant impact on patient satisfaction, particularly in the areas of reliability, responsiveness, communication, and the management of patient expectations. Reliable services not only enhance patient satisfaction but also contribute to improved quality of life, reduced anxiety, and increased trust in medical staff. Patients who receive consistent and timely care tend to report higher satisfaction levels, with significant improvements in mobility, emotional well-being, and physical endurance. However, challenges still exist in implementing reliable services, particularly in hospitals with limited resources and infrastructure. The disparity in service quality between hospitals in resource-limited areas and urban settings requires further attention to ensure that patient satisfaction is improved consistently across all regions.

To improve the reliability of services in hospitals, several measures need to be taken. First, it is essential for hospitals to invest in the training and education of medical staff to ensure they can provide consistent services that meet patient expectations. Additionally, improving hospital infrastructure, particularly in areas with limited resources, is critical for delivering more equitable services. Tight and personalized post-care monitoring should also be introduced to ensure that

each patient receives appropriate attention based on their specific needs. Further research, especially longitudinal studies, is needed to explore the long-term impact of service reliability on patient satisfaction, as well as to adapt services to social and cultural factors that influence patient perceptions. Finally, a holistic patient care approach that includes adequate psychosocial support will strengthen the relationship between patients and hospitals, ultimately improving overall patient satisfaction.

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