



OPTIMIZATION OF HOSPITAL HEALTH SERVICES: INSIGHTS FROM RECENT LITERATURE

I Ketut Parindra^{1*}, Menap², Lalu Abdul Khalik³

^{1,2,3}Master of Public Health Administration, Universitas Qomarul Huda Baddarudin Bagu, Indonesia

Email: indra.parindra@gmail.com

DOI: <https://doi.org/10.33394/bioscientist.v12i2.12467>

Submit: 04-07-2024; Revised: 22-07-2024; Accepted: 24-07-2024; Published: 30-12-2024

Abstract: The objective of this study is to conduct a comprehensive literature review to identify and analyze strategies for optimizing hospital health services within the last year. Utilizing the PRISMA methodology, the study systematically reviewed articles from the SCOPUS database using the keyword “Hospital Health Services”. The search identified 342,847 articles, which were then screened for relevance based on document type, language, publication area, and open access status, narrowing the pool to 76 articles. Following a detailed eligibility assessment, 17 articles were included in the final analysis. These articles covered various aspects of hospital operations, including leadership and management practices, health promotion initiatives, technological innovations, and patient satisfaction. Key findings highlight the critical role of adaptive and strategic leadership in enhancing hospital efficiency and patient care quality. Health promotion initiatives were found to be essential for improving population health, especially when integrated with technological advancements. The implementation of advanced health information technologies, such as electronic health records and digital alerts, significantly improved service efficiency and patient outcomes. Patient satisfaction, influenced by the quality of care, personalized interactions, and supportive environments for healthcare professionals, emerged as a fundamental component of effective healthcare delivery. The implications of this study suggest that hospital administrators and policymakers should prioritize adaptive leadership, integrate health promotion with technology, invest in advanced health information systems, and focus on enhancing patient satisfaction through improved care quality and supportive environments. These strategies are critical for achieving sustainable improvements in hospital health services and overall patient outcomes.

Keywords: hospital health services, healthcare optimization, leadership in healthcare

How to Cite: Parindra, I., Menap, M., & Khalik, L. (2024). Optimization of Hospital Health Services: Insights from Recent Literature. *Bioscientist: Jurnal Ilmiah Biologi*, 12(2), 1636-1655. <https://doi.org/10.33394/bioscientist.v12i2.12467>



Bioscientist: Jurnal Ilmiah Biologi is Licensed Under a CC BY-SA [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

INTRODUCTION

Hospitals serve as fundamental pillars in the healthcare system, providing a broad spectrum of health services, including inpatient, outpatient, and emergency care. These institutions are pivotal in ensuring the health and well-being of the population (Srimayarti et al., 2021). Historically, the primary function of hospitals revolved around treating acute illnesses and injuries. However, their role has significantly expanded to include preventive care and health promotion activities, which are increasingly recognized as critical components of contemporary and future healthcare systems (Azarnoosh et al., 2016). This evolution is essential to address the growing complexity of health needs and to improve the overall health outcomes of communities.



Effective leadership within hospital settings is crucial for enhancing the quality of health services. Leadership in hospitals involves making strategic decisions that impact patient care, staff performance, and the operational efficiency of the institution (Salsabila, 2024). The role of hospital leaders is multifaceted, requiring a balance between clinical expertise and administrative acumen. Strong leadership can drive the implementation of innovative health promotion initiatives, foster a culture of continuous improvement, and ensure that the hospital adapts to the changing healthcare landscape. The influence of effective leadership is evident in the successful integration of new technologies and methodologies that improve patient outcomes and operational efficiencies.

In addition to leadership, the quality of services provided by hospitals plays a significant role in patient satisfaction and healthcare outcomes. Patients' decisions to seek healthcare services are heavily influenced by the perceived quality and accessibility of these services (Bangun & Diana, 2021). High-quality healthcare services are characterized by their ability to meet patient needs comprehensively, timely, and safely. Accessibility, defined by the ease with which patients can obtain needed services, is equally crucial. The equitable distribution of health services ensures that all individuals, regardless of their socio-economic status or geographic location, have access to essential healthcare (Rizky et al., 2023). The focus on providing high-quality, affordable, and equitable services is essential in fostering trust and satisfaction among patients (Nengsih, 2023).

Legal frameworks and regulations form the backbone of hospital operations, defining responsibilities and ensuring compliance with standards. These frameworks are designed to protect patient rights and ensure that medical actions are carried out ethically and legally (Fakrulloh, 2023). Adherence to legal standards is critical in maintaining the integrity of healthcare services and in safeguarding patient safety. Clear guidelines and regulations provide a structured approach to healthcare delivery, ensuring that hospitals operate within a framework that prioritizes patient well-being and service quality (Sani & Santiago, 2021). The presence of robust legal frameworks enhances the accountability and transparency of hospital services, fostering an environment of trust and reliability.

The satisfaction of patients is a central focus for hospitals, influencing their approach to service delivery. Hospitals strive to tailor their services to meet the diverse needs and expectations of their patients, which is fundamental in achieving high levels of patient satisfaction (Ramadhan et al., 2021). Patient satisfaction is closely linked to the quality of care received, the accessibility of services, and the overall hospital experience. Factors such as the physical environment of the hospital, the demeanor and professionalism of the healthcare staff, and the efficiency of administrative processes all contribute to patient perceptions of care. High patient satisfaction not only enhances patient loyalty but also encourages positive behavioral intentions, such as recommending the hospital to others (Abdi & Salman, 2017).

Innovative hospital management practices are vital for enhancing the quality and efficiency of healthcare services. Innovation in hospital management includes the adoption of new technologies, the implementation of evidence-based practices, and the continuous evaluation and improvement of healthcare processes (Lail &



Isma, 2021). Hospitals are increasingly leveraging technology to improve service delivery and patient outcomes. For example, the use of wearable sensors for real-time health monitoring allows for better management of chronic diseases and enhances the ability to provide personalized care (Albahri et al., 2019). Such technological advancements enable hospitals to deliver more accurate, timely, and effective care, thereby improving overall health outcomes.

Health promotion initiatives within hospitals have also seen significant growth. These initiatives encompass a wide range of activities aimed at improving the health and well-being of patients and the community. Hospitals are now offering services such as prenatal care, preventive health programs, and community health assessments, which are integral to promoting long-term health (Olden, 2003). These programs are designed to address the root causes of health issues and to prevent the onset of diseases. By focusing on health promotion, hospitals can reduce the burden of chronic diseases, improve population health, and decrease healthcare costs in the long run.

The role of healthcare professionals, particularly nurses, is critical in delivering quality health services. Nurses are at the forefront of patient care, providing essential services that directly impact patient outcomes. Factors such as workload, human resources, and health policies significantly affect the ability of nurses to deliver high-quality care (Nasirin, 2021). Empowering nurses through adequate support, resources, and training is essential for effective service delivery. Organizational support and empowerment enable nurses to perform their duties efficiently and to provide compassionate, patient-centered care (Suhernin, 2022). The involvement of nurses in decision-making processes and the recognition of their contributions are crucial in fostering a positive and productive work environment.

Strategic planning is essential for the sustainable growth and development of hospitals, particularly in the private sector. Private hospitals play a significant role in healthcare provision, often complementing public health services by offering specialized care and advanced medical technologies (Nyamu, 2018). Effective strategic planning involves setting clear objectives, identifying key areas for improvement, and developing actionable plans to achieve desired outcomes. This process requires a comprehensive understanding of the healthcare market, patient needs, and emerging trends. By engaging in strategic planning, hospitals can ensure their long-term viability and their ability to adapt to changes in the healthcare environment.

Accreditation processes are another critical aspect of hospital service optimization. Accreditation involves a thorough evaluation of hospital services and operations against established standards, aiming to enhance service quality, patient safety, and overall protection for individuals using healthcare services (Kusumaningrum, 2018). Accredited hospitals are recognized for their commitment to maintaining high standards of care and for their efforts in continuous improvement. The accreditation process provides a framework for hospitals to assess their performance, identify areas for improvement, and implement necessary changes to enhance service delivery.



The integration of technology in hospital services has transformed healthcare delivery. Technologies such as electronic health records (EHRs), telemedicine, and health information systems have improved the efficiency and effectiveness of healthcare services. EHRs, for instance, enable the seamless sharing of patient information across different healthcare providers, facilitating coordinated care and reducing medical errors. Telemedicine allows patients to receive care remotely, increasing access to healthcare services, especially in underserved areas. Health information systems support data-driven decision-making, allowing hospitals to optimize resource allocation and improve patient outcomes.

Hospitals are multifaceted institutions that offer essential health services covering various aspects of care, from inpatient treatment to health promotion initiatives. The comprehensive nature of hospital services requires a holistic approach to management and service delivery. This includes ensuring the availability of necessary resources, fostering a culture of continuous improvement, and maintaining a patient-centered approach to care. By prioritizing innovation, empowerment, and strategic planning, hospitals can effectively meet the evolving needs of patients and significantly contribute to the healthcare system.

The optimization of hospital health services is a multifaceted endeavor that involves various aspects such as leadership, service quality, legal frameworks, strategic planning, and innovation. Effective leadership is crucial for making strategic decisions that enhance patient care and operational efficiency. The quality and accessibility of services directly impact patient satisfaction and healthcare outcomes. Legal frameworks ensure that hospitals operate within established standards, safeguarding patient safety and service quality. Innovative management practices and the integration of technology are vital for improving service delivery and patient outcomes. Health promotion initiatives play a significant role in preventing diseases and improving population health. Empowering healthcare professionals, particularly nurses, is essential for delivering high-quality care. Strategic planning ensures the sustainable growth and development of hospitals. Finally, accreditation processes provide a framework for continuous improvement and high standards of care. By addressing these various aspects, hospitals can optimize their services and contribute to a more effective and equitable healthcare system.

The optimization of hospital health services remains a critical issue within the healthcare sector, with several persistent challenges requiring attention. One significant problem is the disparity in service quality and accessibility across different hospitals and regions. Despite advancements in healthcare, there are notable differences in the quality of services provided, often influenced by factors such as geographical location, available resources, and hospital management practices. This disparity can lead to inequitable healthcare outcomes, where patients in underserved areas may not receive the same level of care as those in more affluent regions (Rizky et al., 2023). Addressing these inconsistencies is essential to ensure that all individuals have access to high-quality healthcare services, regardless of their location.

Another pressing issue is the effective integration of innovative technologies into hospital operations. While technological advancements such as electronic



health records (EHRs) and telemedicine have the potential to significantly enhance service delivery, their implementation often faces numerous obstacles. These challenges include the high cost of technology adoption, resistance from healthcare staff, and concerns about data privacy and security (Albahri et al., 2019). Furthermore, the lack of standardized protocols for technology integration can lead to fragmented and inefficient systems. Ensuring that hospitals can effectively incorporate these technologies into their workflows is crucial for improving the efficiency and quality of healthcare services.

Staffing shortages and the workload of healthcare professionals, particularly nurses, pose another critical problem for hospital health service optimization. Nurses and other healthcare staff are often overburdened due to high patient volumes and insufficient staffing levels, which can negatively impact the quality of care provided (Nasirin, 2021). This issue is exacerbated by the increasing complexity of healthcare needs and the rising demand for healthcare services. Moreover, inadequate support and resources for healthcare professionals can lead to burnout and decreased job satisfaction, further aggravating staffing shortages. Addressing these staffing challenges through better resource allocation, support systems, and workforce planning is essential to ensure sustainable and high-quality healthcare delivery. Thus, it is necessary.

The primary objective of this study is to conduct a comprehensive literature review to identify and analyze strategies for optimizing hospital health services within the last year. By synthesizing recent research findings, this study aims to provide insights into effective practices and highlight areas requiring further improvement. The novelty of this study lies in its holistic approach to examining hospital health services optimization. Unlike previous studies that may have focused on isolated aspects such as technology adoption or patient satisfaction, this research integrates multiple dimensions, including leadership, technology, health promotion, and patient perspectives. By adopting this comprehensive approach, the study aims to provide a more nuanced understanding of how various factors interact and contribute to the optimization of hospital health services. Furthermore, this study leverages the most recent literature, ensuring that the findings and recommendations are up-to-date and relevant to current healthcare challenges and advancements.

This study aims to explore the optimization of hospital health services over the past year by conducting a thorough literature review. The scope of this research encompasses various dimensions of hospital operations, including leadership and management practices, health promotion initiatives, technological innovations, and patient satisfaction. By integrating these aspects, the study seeks to provide a comprehensive understanding of the factors that contribute to the effective optimization of hospital health services.

METHOD

This study employs a comprehensive literature review methodology to identify and analyze strategies for optimizing hospital health services within the last year. The review follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which provide a structured approach to



conducting systematic reviews. The methodology involves four key stages: identification, screening, eligibility, and inclusion, ensuring a rigorous and transparent process. The primary source of data for this review is the SCOPUS database (<https://www.scopus.com>), selected for its extensive collection of peer-reviewed literature. The focus is on recent advancements, specifically targeting publications from 2023 to 2024.

Identification

The identification stage involves systematically searching the SCOPUS database to capture all relevant literature on hospital health services. The search strategy includes the use of the keyword “Hospital Health Services” [*TITLE-ABS-KEY (hospital AND health AND services)*] to ensure comprehensive coverage of the topic. This keyword is chosen to capture a wide range of studies related to hospital operations, quality of care, patient satisfaction, and other relevant aspects. The search is conducted across all available years up to July 1, 2024, to ensure the inclusion of the most recent publications. Additionally, the search parameters are set to retrieve articles from diverse areas such as nursing, health professions, and medicine, to capture multidisciplinary perspectives on hospital health service optimization.

Screening

Following the identification of relevant articles, the screening process is employed to filter the results based on predefined criteria. The criteria for screening include the type of document (journal articles), language (English), publication area (nursing, health professions, and medicine), and publication date range (2023 to 2024) [*TITLE (hospital AND health AND services) AND PUBYEAR > 2022 AND PUBYEAR < 2025 AND (LIMIT-TO (SUBJAREA , "HEAL" OR "NURS" OR "MEDI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English ")) AND (LIMIT-TO (OA , "all"))*]. Additionally, only open access articles are considered to ensure the accessibility of the full text for detailed analysis. This screening stage aims to narrow down the initial pool of articles to those that are most relevant to the research objectives. The inclusion of only open access articles ensures that all selected studies can be thoroughly reviewed without restrictions.

Eligibility

The eligibility stage involves a more detailed assessment of the screened articles to determine their relevance to the specific focus on hospital health services. This assessment is conducted manually, with each article being evaluated based on its title, abstract, and full text where necessary. The primary criterion for eligibility is the direct relevance of the article to the theme of hospital health services. This includes studies that focus on various aspects of hospital operations, quality improvement initiatives, patient care strategies, and the integration of technology in healthcare settings. Articles that do not directly address these themes are excluded to maintain a focused and coherent review.

Inclusion

The final stage of the PRISMA methodology is the inclusion of articles that meet the eligibility criteria. These articles are included in the review for detailed



analysis. The inclusion process involves organizing the selected articles and extracting relevant data for synthesis. The extracted data includes information such as the authors, study title, study highlights, and key findings. This data is then systematically analyzed to identify common themes, trends, and strategies for optimizing hospital health services. The inclusion process ensures that the review is based on high-quality, relevant studies that provide valuable insights into the research objective.

Data Extraction and Analysis

The data extraction process involves carefully reviewing each included article to gather key information relevant to the study objective. This information includes the authors, study title, publication year, study design, key findings, and study highlights. The data is organized into a structured format to facilitate analysis. The analysis involves synthesizing the extracted data to identify common themes, trends, and strategies for optimizing hospital health services. The synthesis process includes a qualitative analysis of the findings to draw meaningful conclusions and recommendations. This structured approach ensures that the review provides a comprehensive understanding of the current state of hospital health service optimization.

Synthesis of Findings

The final step in the methodology is the synthesis of the findings from the included articles. This synthesis involves integrating the key findings from the reviewed studies to draw comprehensive conclusions about strategies for optimizing hospital health services. The synthesis focuses on identifying effective practices, highlighting areas for improvement, and providing recommendations for future research and practice. The findings are discussed in the context of the current healthcare landscape, considering factors such as leadership, technology integration, health promotion, and patient satisfaction. By synthesizing the findings from multiple studies, the review aims to provide a holistic understanding of how various factors contribute to the optimization of hospital health services.

This literature review employs a rigorous and systematic methodology following the PRISMA guidelines. The identification, screening, eligibility, and inclusion stages ensure a comprehensive and focused review of the most recent literature on hospital health services. The data extraction and synthesis processes provide valuable insights into effective strategies for optimizing hospital health services, contributing to the ongoing discourse on healthcare improvement.

RESULTS AND DISCUSSION

The identification stage of this systematic review began with a comprehensive search of the SCOPUS database using the keyword “Hospital Health Services.” This search aimed to capture a broad spectrum of literature relevant to the optimization of hospital health services. The initial search yielded a substantial total of 342,847 articles, reflecting the extensive research interest and activity in this domain. Figure 1 illustrates the distribution of these documents across several dimensions, providing a detailed overview of the identified literature. The graph in Figure 1(a) shows a significant increase in publications over time, with notable

growth starting from the late 1990s and peaking in recent years. This trend indicates an escalating focus on hospital health services, likely driven by the increasing complexity and demands of healthcare systems globally.

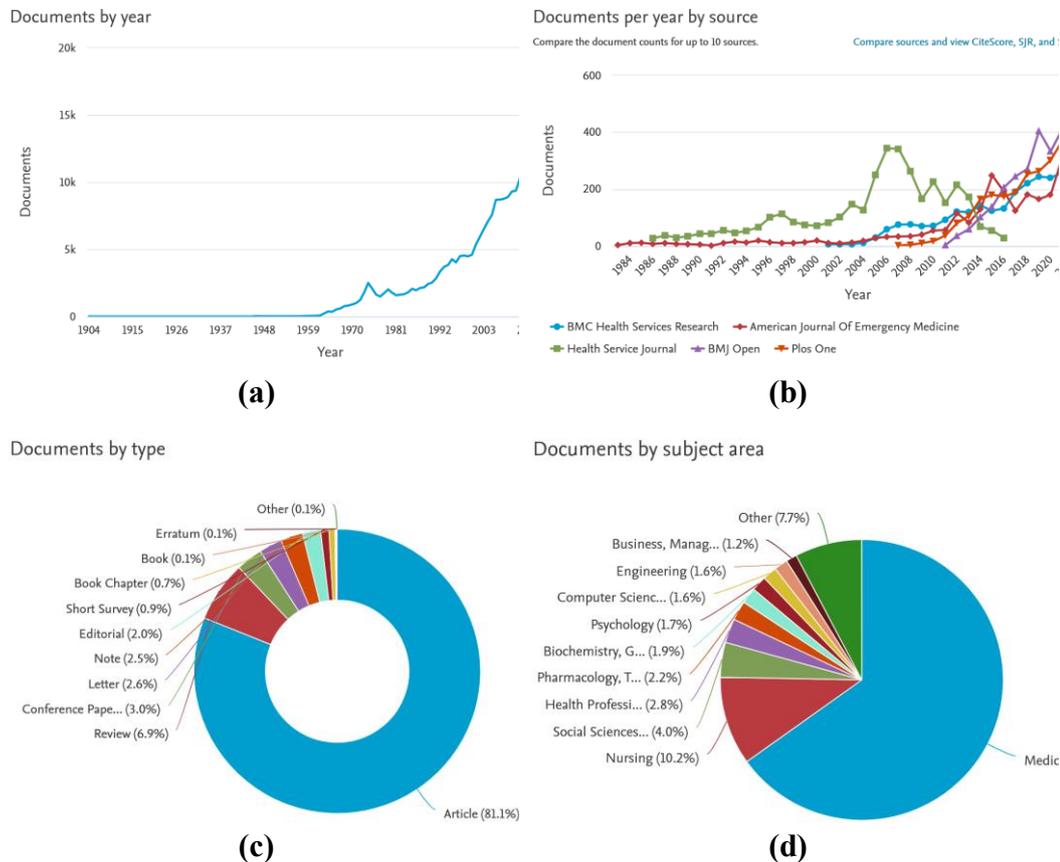


Figure 1. The documents identification results from the SCOPUS database using the keyword “Hospital Health Services,” (a) documents by years, (b) documents per year by source, (c) documents by type, and (d) documents by subject area

Further analysis of the documents by year and source, as shown in Figure 1(b), reveals the contributions of various journals to the body of literature on hospital health services. Key sources include prominent journals such as BMC Health Services Research, the American Journal of Emergency Medicine, Health Service Journal, BMJ Open, and PLOS One. These journals have consistently published a significant number of articles annually, underscoring their role in disseminating critical research findings and advancements in hospital health services. The data indicates that while some journals have maintained a steady output over the years, others have seen fluctuations, reflecting broader trends and focal shifts within the research community.

In terms of document type and subject area, Figures 1(c) and 1(d) provide insightful breakdowns. The majority of the identified documents are journal articles (81.1%), followed by conference papers (3.0%), reviews (6.9%), and other types such as editorials, notes, and book chapters. This distribution highlights the prevalence of original research articles and the importance of conferences as



platforms for presenting cutting-edge research. The subject area analysis shows a dominant focus on medicine (65.1%) and nursing (10.2%), with significant contributions from health professions (2.8%), social sciences (4.0%), and other related fields. This multidisciplinary involvement indicates the comprehensive approach required to address the diverse aspects of hospital health services, from clinical practices and patient care to administrative and policy considerations. The identification stage thus provides a robust foundation for further screening and detailed review, ensuring a wide-ranging and inclusive examination of the literature on optimizing hospital health services.

The screening stage involved applying predefined criteria to the initial pool of 342,847 articles to ensure relevance and quality. This process began with filtering the documents based on type, language, publication area, and access type. Specifically, only journal articles published in English were considered to maintain consistency and comprehensibility. Furthermore, the focus was restricted to articles within the fields of nursing, health professions, and medicine to align with the research objective. Additionally, to ensure the accessibility of the full text for detailed analysis, only open access articles were included. Applying these criteria reduced the pool significantly, narrowing it down to 76 articles for detailed review. This meticulous screening process was crucial in eliminating irrelevant or less pertinent studies, thereby enhancing the focus and quality of the subsequent stages.

In the eligibility stage, the 76 screened articles underwent a more rigorous assessment to determine their suitability for inclusion in the final analysis. This involved a detailed review of each article's title, abstract, and, where necessary, the full text to ensure direct relevance to the optimization of hospital health services. The primary criterion for eligibility was that the articles had to specifically address aspects such as leadership practices, technological innovations, health promotion initiatives, and patient satisfaction within the context of hospital health services. This stage was manual, requiring careful consideration to identify studies that provided significant insights and data pertinent to the research objectives. Through this meticulous process, 17 articles were deemed eligible, demonstrating a strong focus on the core themes of the study and offering substantial contributions to understanding hospital health service optimization.

The final inclusion stage involved organizing the 17 eligible articles and extracting key data for comprehensive analysis. Table 1 presents these articles, highlighting essential details such as authors, study titles, and study highlights. The inclusion process ensured that each selected article was relevant and valuable to the research aims. The extracted data from these articles provided a robust foundation for the analysis and discussion of strategies for optimizing hospital health services. This stage focused on synthesizing the findings to identify common themes, effective practices, and areas requiring further improvement. The inclusion of these 17 articles allowed for a nuanced and detailed exploration of the various factors influencing hospital health service optimization, ensuring that the study's conclusions and recommendations were well-supported by the most recent and relevant literature.



Table 1. Documents Resulting from Inclusion of Themes Related to “Hospital Health Services”

Authors	Title	Study Highlights	Results
Abramo & D’angelo (2023)	Bibliometrics, the 'Clinical Diagnostics' of Research Impact Comment on 'We’re Not Providing the Best Care If We Are Not on the Cutting Edge of Research': A Research Impact Evaluation at a Regional Australian Hospital and Health Service.	Evaluation of research impact at Townsville Hospital and Health Service (THHS) using bibliometrics.	Suggested bibliometrics for better assessment of research impact.
Abdelaziz et al. (2023)	The impact of COVID-19 pandemic on the health services provided by the Cardiothoracic Minia University Hospital in Egypt: A single-center retrospective observational study.	Comparison of health services before and during the COVID-19 pandemic at Minia Cardiothoracic University Hospital.	Significant reduction in various health services during the pandemic.
Brueton et al. (2023)	Extending infection prevention and control nursing (IPCN) provision to weekends at one National Health Service hospital in the United Kingdom: A feasibility and acceptability study.	Pilot study on extending IPCN cover to weekends in a UK NHS hospital.	Feasible and valued by stakeholders, improved infection management and patient flow.
Anttila et al. (2023)	Recovery-oriented mental health principles in psychiatric hospitals: How service users, family members and staff perceive the realization of practices.	Comparison of perceptions on recovery-oriented principles in Finnish psychiatric hospitals.	Varied perceptions among different stakeholders, need for more research on factors affecting these perceptions.
Jiménez-Buñuales et al. (2024)	The Collaboration of Private Hospitals with the Public Health	Case study on public-private	Increasing trend in private beds, strategic public-



	Service: The Case of La Rioja, Spain (1986–2019).	collaboration in La Rioja, Spain.	private partnerships beneficial.
Chambers et al. (2023)	Doubled-Up Households, Self-Management Behaviors, Diabetes Preventive Care Services, and Hospital Use in the Hispanic Community Health Study.	Impact of living arrangements on diabetes management and hospital use among Hispanic/Latino adults.	Less preventive care for those in doubled-up households, higher ED visits for those living with other adults.
Arsat et al. (2023)	The effect of work setting and demographic factors on caring behaviour among nurses in the public hospitals and public health services, Sabah, Malaysia.	Impact of demographic factors on caring behavior among nurses in Sabah, Malaysia.	Demographic factors significantly affect caring behavior, no significant impact from work setting.
Mayr et al. (2023)	‘We work in silos’: Exploring clinicians' perspectives on the dietary management of coronary heart disease and type 2 diabetes in an Australian public hospital and community health service.	Clinicians' perspectives on dietary management practices in Australia.	Challenges include resource constraints, inconsistent advice, need for better dietitian integration.
Alghamdi et al. (2023)	Implementation of medication reconciliation at admission and discharge in Ministry of Defense Health Services hospitals: A multicentre study.	Implementation of medication reconciliation processes in Saudi Arabia.	Significant reduction in medication discrepancies, improved compliance with documentation.
Payne-James et al. (2023)	The workload of a medical examiner service at an acute National Health Service hospital during the COVID-19 pandemic: The Norfolk & Norwich	Workload analysis of a medical examiner service during the COVID-19 pandemic.	Consistent scrutiny of deaths, highlighted the importance of medical examiner services during crises.



	University Hospital experience.		
Charlton & Bate (2024)	Factors that influence paramedic decision-making about resuscitation for treatment of out of hospital cardiac arrest: Results of a discrete choice experiment in National Health Service ambulance trusts in England and Wales.	Paramedic decision-making during out of hospital cardiac arrest in England and Wales.	Decision influenced by patient characteristics and paramedic experience, need for support in decision-making.
Bautista et al. (2024)	Nursing Staff in a Large Hospital System Underutilize Insurance-Based Mental Health Services.	Utilization of mental health services by nursing staff at Houston Methodist.	Underutilization of services, identified barriers and proposed solutions for better utilization.
Skarsgaard et al. (2024)	Home-based postnatal care following early hospital discharge: A descriptive study of the health care service midwife home.	Evaluation of home-based postnatal care service in Trondheim, Norway.	Service found to be safe, appropriate for healthy mothers and newborns, low readmission rates.
Hamdan et al. (2023)	Impact of COVID-19 Pandemic on Outpatient Child and Adolescent Mental Health Service at a Tertiary Care Hospital of Pakistan.	Impact of COVID-19 on child and adolescent mental health services in Pakistan.	Significant decline in outpatient visits, increased behavioral problems, maintained common diagnoses.
Honeyford et al. (2023)	Prevalence of electronic screening for sepsis in National Health Service acute hospitals in England.	Use of digital sepsis alerts in NHS hospitals in England.	Widespread use of NEWS2-based alerts, varied implementation, need for advanced algorithms.
Ferreira et al. (2024)	Nursing and waste management in health services: unveiling meanings in the hospital context.	Nursing professionals' perceptions of waste management in Rio de Janeiro.	Need for better knowledge and training, recognized importance of waste management.
Ntuli & Letswalo (2023)	Diabetic foot and lower limb	Incidence of diabetic-related	High amputation rates, need for



amputations at central, provincial and tertiary hospitals-underscores the need for organised foot health services at primary healthcare level.	amputations and need for foot health services in South Africa.	better foot care at primary healthcare level.
--	--	---

This review aims to synthesize recent research findings to identify and analyze strategies for optimizing hospital health services within the last year. The scope encompasses various dimensions of hospital operations, including leadership and management practices, health promotion initiatives, technological innovations, and patient satisfaction. By examining these aspects, the review provides insights into effective practices and highlights areas requiring further improvement.

Leadership and Management Practices

Effective leadership and management practices are crucial for optimizing hospital health services. Leadership directly impacts the quality of patient care, staff performance, and overall operational efficiency. According to Brueton et al. (2023), extending infection prevention and control nursing (IPCN) provision to weekends in a UK National Health Service hospital demonstrated feasibility and was valued by stakeholders, improving infection management and patient flow. This finding underscores the importance of flexible leadership that can adapt to changing needs and extend critical services beyond traditional hours to enhance patient outcomes.

Moreover, effective leadership involves strategic decision-making and the ability to foster a culture of continuous improvement. As highlighted by Abramo and D'angelo (2023), applying evaluative bibliometrics can significantly enhance the assessment of research impact within hospital settings. Their study at Townsville Hospital and Health Service (THHS) emphasized that quantitative analyses could benefit from experienced bibliometricians to inform research policies and strategies, thereby optimizing health services through informed leadership decisions.

The COVID-19 pandemic has further underscored the need for adaptive leadership. Abdelaziz et al. (2023) found that health services at the Cardiothoracic Minia University Hospital in Egypt were significantly impacted during the pandemic, with substantial reductions in pulmonary function tests, sleep studies, and outpatient visits. Effective leadership during such crises involves not only managing immediate health service disruptions but also planning for long-term resilience and recovery.

In addition to adaptability, leadership must also ensure equitable distribution of health services. The case study by Jiménez-Buñuales et al. (2024) on the collaboration between private hospitals and the public health service in La Rioja, Spain, highlights the strategic public-private partnerships that can enhance service delivery. This collaboration led to an increase in private beds and reduced dependence on neighboring regions, showcasing how strategic alliances can optimize health services and improve accessibility.



Health Promotion Initiatives

Health promotion initiatives within hospitals play a vital role in improving population health and preventing chronic diseases. Anttila et al. (2023) examined the implementation of recovery-oriented mental health principles in Finnish psychiatric hospitals. Their study found significant variations in how these principles were perceived and realized by different stakeholders, including service users, family members, and staff. Such findings highlight the need for comprehensive health promotion strategies that consider diverse perspectives to effectively implement recovery-oriented practices.

Health promotion is also closely linked to patient education and self-management. Chambers et al. (2023) investigated the impact of living arrangements on diabetes self-management behaviors and hospital use among Hispanic/Latino adults. They found that adults living in doubled-up households were less likely to receive preventive care and had higher emergency department visits. This underscores the importance of targeted health promotion initiatives that address social determinants of health and enhance patient self-management practices.

Moreover, health promotion must extend beyond individual care to encompass community health. Arsat et al. (2023) highlighted the influence of demographic factors on caring behavior among nurses in public hospitals in Sabah, Malaysia. Their findings suggest that demographic characteristics such as age, education, and economic status significantly impact nurses' caring behavior, emphasizing the need for tailored health promotion programs that address these factors and improve overall health service delivery.

Health promotion initiatives also need to be integrated with technological advancements to maximize their impact. For instance, Mayr et al. (2023) explored clinicians' perspectives on dietary management for coronary heart disease and type 2 diabetes in Australia. They identified challenges such as resource constraints and inconsistent advice, suggesting that better integration of dietitians and investment in nutrition education could enhance health promotion efforts and patient outcomes.

Technological Innovations

Technological innovations are essential for optimizing hospital health services by improving efficiency, accuracy, and patient outcomes. Alghamdi et al. (2023) demonstrated the positive impact of implementing medication reconciliation processes in Saudi Arabia Ministry of Defense Health Services hospitals. Their multicenter study showed significant reductions in medication discrepancies and improved compliance with documentation, highlighting the critical role of technology in enhancing medication safety and overall service quality.

Digital health technologies, such as electronic health records (EHRs) and telemedicine, have also transformed healthcare delivery. Honeyford et al. (2023) reported widespread use of digital sepsis alerts in NHS hospitals in England. These alerts, primarily based on the National Early Warning Score (NEWS2), facilitated early identification and treatment of sepsis, underscoring the importance of integrating advanced algorithms into routine care to improve patient outcomes.

Furthermore, technology can enhance postnatal care services, as evidenced by Skarsgaard et al. (2024). Their study on the "Midwife Home" program in Trondheim, Norway, which provides home-based postnatal care following early



hospital discharge, found that the service was safe and effective for healthy mothers and newborns. This highlights the potential of leveraging technology to extend care beyond traditional settings and improve continuity of care.

The integration of technology also requires addressing challenges related to data privacy, security, and staff training. Payne-James et al. (2023) examined the workload of a medical examiner service during the COVID-19 pandemic at Norfolk & Norwich University Hospital. Their study emphasized the importance of continuous scrutiny of deaths and the role of medical examiner services in ensuring accurate data collection and reporting. Effective technological integration thus necessitates robust policies and training programs to safeguard data integrity and enhance service delivery.

Patient Satisfaction

Patient satisfaction is a crucial indicator of the quality and effectiveness of hospital health services. It influences patients' decisions to seek care and their overall experience within the healthcare system. Bautista et al. (2024) highlighted the underutilization of mental health services by nursing staff at Houston Methodist. Their study identified barriers such as stigma, lack of awareness, and accessibility issues, suggesting the need for targeted interventions to improve service utilization and enhance patient satisfaction.

Patient satisfaction is also linked to the quality of care and the physical environment of hospitals. Hamdan et al. (2023) investigated the impact of COVID-19 on outpatient child and adolescent mental health services in Pakistan. They reported a significant decline in outpatient visits and deterioration in record-keeping quality during the pandemic. Improving the physical environment and ensuring consistent quality of care are essential to maintaining high levels of patient satisfaction.

Furthermore, patient satisfaction can be enhanced through personalized care and effective communication. Charlton & Bate (2024) explored factors influencing paramedic decision-making during out-of-hospital cardiac arrest in England and Wales. Their study found that decisions were influenced by patient characteristics and paramedic experience, highlighting the need for support and training to ensure consistent and patient-centered decision-making.

Nursing staff play a critical role in influencing patient satisfaction through their caring behavior and interactions with patients. Ferreira et al. (2024) examined nursing professionals' perceptions of waste management in Rio de Janeiro and found that better knowledge and training were needed to enhance waste management practices. Ensuring that nursing staff are well-trained and supported can improve their job satisfaction and, in turn, enhance patient care and satisfaction.

Optimizing hospital health services requires a multifaceted approach that encompasses effective leadership, comprehensive health promotion initiatives, technological innovations, and a focus on patient satisfaction. The studies reviewed highlight various strategies and areas for improvement within these dimensions. Effective leadership involves strategic decision-making and adaptability, particularly during crises like the COVID-19 pandemic. Health promotion initiatives must address diverse patient needs and leverage technology to maximize impact. Technological innovations are essential for improving service efficiency



and patient outcomes, but they require robust policies and training to ensure successful implementation. Finally, enhancing patient satisfaction involves improving the quality of care, the physical environment, and personalized interactions with healthcare providers.

By synthesizing recent research findings, this review provides valuable insights into effective practices for optimizing hospital health services. It also identifies areas requiring further improvement, such as the integration of advanced technologies, the enhancement of health promotion initiatives, and the support of nursing staff. Addressing these areas can lead to more effective and equitable healthcare systems, ultimately improving health outcomes for all patients.

CONCLUSION

The comprehensive literature review aimed to identify and analyze strategies for optimizing hospital health services over the past year, yielded significant insights. The identification stage began with a substantial pool of 342.847 articles sourced from the SCOPUS database. Through a rigorous screening process, which filtered based on document type, language, publication area, and open access status, the pool was narrowed down to 76 articles. Further scrutiny during the eligibility stage, focusing on relevance to hospital health service optimization, resulted in 17 articles being selected for detailed analysis. These articles covered various aspects of hospital operations, including leadership, health promotion, technological innovations, and patient satisfaction, offering a comprehensive view of recent advancements and challenges in the field.

The analysis highlights several key strategies for optimizing hospital health services. Effective leadership emerged as a crucial factor, with studies showing that adaptive and strategic decision-making can significantly enhance operational efficiency and patient care quality. Health promotion initiatives are essential for improving population health, particularly when addressing social determinants and leveraging technology for broader outreach. Technological innovations, including the implementation of electronic health records and advanced algorithms for early disease detection, were shown to improve service efficiency and patient outcomes. Patient satisfaction remains a fundamental indicator of hospital service quality, influenced by the quality of care, personalized interactions, and supportive environments for healthcare professionals. These findings provide a roadmap for hospital administrators and policymakers to implement effective strategies that can lead to sustainable improvements in hospital health services, ultimately enhancing patient outcomes and operational efficiency.

RECOMMENDATION

Based on the findings and limitations of this study, several recommendations can be made to enhance future research and practice in optimizing hospital health services. Firstly, future reviews should consider incorporating multiple databases and broader search terms to capture a more comprehensive set of relevant literature. Expanding the search to include subscription-based journals and gray literature can also enrich the review with diverse perspectives and high-quality studies that might otherwise be overlooked. Additionally, integrating older studies can provide



valuable historical context and long-term trends that are crucial for a holistic understanding of hospital health service optimization.

In practice, hospitals should prioritize adaptive leadership and continuous professional development to enhance strategic decision-making and operational efficiency. Health promotion initiatives should be integrated with technological advancements to maximize their reach and impact. Hospitals must also invest in advanced health information technologies and ensure proper training for staff to leverage these tools effectively. Lastly, patient satisfaction should remain a core focus, with efforts to enhance patient-centered care, improve the physical environment, and support healthcare professionals' well-being. By addressing these recommendations, hospitals can achieve sustainable improvements in service quality and patient outcomes.

ACKNOWLEDGMENT

We extend our sincere gratitude to all the researchers and institutions whose studies were reviewed in this article. Their valuable contributions and insights have significantly enhanced our understanding of strategies for optimizing hospital health services. Additionally, we appreciate the support of our academic and research colleagues who provided guidance and feedback throughout this study.

REFERENCES

- Abdelaziz, A. O., Emam, R. M., Shehata, S. R., & Abdelghany, E. A. (2023). The impact of COVID-19 pandemic on the health services provided by the Cardiothoracic Minia University Hospital in Egypt: A single-center retrospective observational study. *Canadian Journal of Respiratory Therapy*, 59, 70-74. <https://doi.org/10.29390/cjrt-2022-057>
- Abdi, B. & Salman, D. (2017). Measuring inpatients level of satisfaction about health services provided by zakho governmental hospitals. *Humanities Journal of University of Zakho*, 5(1), 221. <https://doi.org/10.26436/2017.5.1.191>
- Abramo, G. & D'Angelo, C. A. (2023). Bibliometrics, the "Clinical Diagnostics" of Research Impact Comment on "'We're Not Providing the Best Care If We Are Not on the Cutting Edge of Research': A Research Impact Evaluation at a Regional Australian Hospital and Health Service." *International Journal of Health Policy and Management*, 12(1), 7703. <https://doi.org/10.34172/ijhpm.2023.7703>
- Albahri, A., Albahri, O., Zaidan, A., Zaidan, B., Hashim, M., Alsalem, & Baqer, M. (2019). Based multiple heterogeneous wearable sensors: a smart real-time health monitoring structured for hospitals distributor. *IEEE Access*, 7, 37269-37323. <https://doi.org/10.1109/access.2019.2898214>
- Alghamdi, D. S., Alhrasen, M., Kassem, A., Alwagdani, A., Tourkmani, A. M., Alnowaiser, & Alotaibi, Y. K. (2023). Implementation of medication reconciliation at admission and discharge in Ministry of Defense Health Services hospitals: A multicentre study. *BMJ Open Quality*, 12(2), e002121. <https://doi.org/10.1136/bmj-2022-002121>



- Anttila, M., Lantta, T., Hipp, K., & Välimäki, M. (2023). Recovery-oriented mental health principles in psychiatric hospitals: How service users, family members and staff perceive the realization of practices. *Journal of Advanced Nursing*, 79(7), 2732-2743. <https://doi.org/10.1111/jan.15506>
- Arsat, N., Lah, N. A. S. N., Thomas, D. C., Soong, S. F., Chong, L. T., Sawatan, & Wider, W. (2023). The effect of work setting and demographic factors on caring behaviour among nurses in the public hospitals and public health services, Sabah, Malaysia. *BMC Nursing*, 22(1), 194. <https://doi.org/10.1186/s12912-023-01359-w>
- Azarnoosh, M., Amiri, M., Riahi, L., Khosravi, A., & Naderi, S. (2016). Health promoting hospitals: a case study in iran. *Journal of Basic Research in Medical Sciences*, 3(3), 37-44. <https://doi.org/10.18869/acadpub.jbrms.3.3.37>
- Bangun, D. & Diana, V. (2021). Factors affecting the decision of patients to utilize health services for recycling. *Journal La Medihealtico*, 2(2), 58-68. <https://doi.org/10.37899/journallamedihealtico.v2i2.317>
- Bautista, C. L., Bourassa, K. A., Vasquez, N. N., Desrochers, M., Bartek, N., & Madan, A. (2024). Nursing staff in a large hospital system underutilize insurance-based mental health services. *Healthcare*, 12(12), 1188. <https://doi.org/10.3390/healthcare12121188>
- Brueton, V., Mooney, L., & Wigglesworth, N. (2023). Extending infection prevention and control nursing (IPCN) provision to weekends at one National Health Service hospital in the United Kingdom: A feasibility and acceptability study. *Journal of Infection Prevention*, 24(4), 178-181. <https://doi.org/10.1177/17571774231165406>
- Chambers, E. C., Hua, S., Lin, J., Kim, R. S., Youngblood, M. E., Perreira, K. M., & Isasi, C. R. (2023). Doubled-Up Households, Self-Management Behaviors, Diabetes Preventive Care Services, and Hospital Use in the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) 2015–2020. *Diabetes Care*, 46(2), 455-462. <https://doi.org/10.2337/dc22-1477>
- Charlton, K., & Bate, A. (2024). Factors that influence paramedic decision-making about resuscitation for treatment of out of hospital cardiac arrest: Results of a discrete choice experiment in National Health Service ambulance trusts in England and Wales. *Resuscitation Plus*, 17, 100580. <https://doi.org/10.1016/j.resplu.2024.100580>
- Fakrulloh, Z. (2023). Legal review of hospital responsibility for medical actions carried out by doctors. *Jurnal Indonesia Sosial Sains*, 4(12), 1237-1247. <https://doi.org/10.59141/jiss.v4i12.934>
- Ferreira, M. J. C., Ventura, C. A. A., Valadares, G. V., Mendes, I. A. C., da Silva, T. P., & Silva, Í. R. (2024). Nursing and waste management in health services: Unveiling meanings in the hospital context. *Revista Gaucha de Enfermagem*, 45, e20230136. <https://doi.org/10.1590/1983-1447.2024.20230136.en>
- Hamdan, Q. U. A., Nizami, A. T. D., Umar, Z., Afzal, S., Mazhar, M., & Yasir, S. (2023). Impact of COVID-19 pandemic on outpatient child and adolescent mental health service at a tertiary care hospital of Pakistan. *Pakistan Armed*



- Forces Medical Journal*, 73(3), 818-821.
<https://doi.org/10.51253/pafmj.v73i3.8661>
- Honeyford, K., Nwosu, A.-P., Lazzarino, R., Kinderlerer, A., Welch, J., Brent, A. J., & Costelloe, C. E. (2023). Prevalence of electronic screening for sepsis in National Health Service acute hospitals in England. *BMJ Health and Care Informatics*, 30(1), e100743. <https://doi.org/10.1136/bmjhci-2023-100743>
- Jiménez-Buñuales, M. T., León-Sanz, P., González-Diego, P., & González-Menorca, L. (2024). The collaboration of private hospitals with the public health service: The case of La Rioja, Spain (1986–2019). *Healthcare*, 12(10), 990. <https://doi.org/10.3390/healthcare12100990>
- Kusumaningrum, A. (2018). The effectiveness of hospital accreditation implementation as a protection effort on patient information rights. *SHS Web of Conferences*, 54, 03014. <https://doi.org/10.1051/shsconf/20185403014>
- Lail, H., & Isma, A. (2021). Hospital management innovation in public services in regional public hospitals lanto dg. pasewang jeneponto district. *Jurnal Ad Ministrare*, 8(1), 43. <https://doi.org/10.26858/ja.v8i1.18253>
- Mayr, H. L., Savill, H., Law, L., Campbell, K. L., Hill, J., Palmer, M., & Kelly, J. T. (2023). ‘We work in silos’: Exploring clinicians' perspectives on the dietary management of coronary heart disease and type 2 diabetes in an Australian public hospital and community health service. *Nutrition and Dietetics*, 80(3), 307-319. <https://doi.org/10.1111/1747-0080.12789>
- Nasirin, C. (2021). The impact of nurses workload, humanities and health policy: exploratory analysis of the patient experience satisfaction. <https://doi.org/10.2991/assehr.k.210525.036>
- Nengsih, D. (2023). Service quality dimensions affect outpatient satisfaction. *JNKI (Jurnal Ners Dan Kebidanan Indonesia)*, 11(2), 134. [https://doi.org/10.21927/jnki.2023.11\(2\).134-145](https://doi.org/10.21927/jnki.2023.11(2).134-145)
- Ntuli, S., & Letswalo, D. M. (2023). Diabetic foot and lower limb amputations at central, provincial and tertiary hospitals-underscores the need for organised foot health services at primary healthcare level. *Foot*, 56, 102039. <https://doi.org/10.1016/j.foot.2023.102039>
- Nyamu, H. (2018). Influence of strategic planning practice on sustainable growth of private hospitals in kenya. *Strategic journals*, 5(3). <https://doi.org/10.61426/sjbcm.v5i3.862>
- Olden, P. (2003). Why hospitals offer health promotion: perspectives for collaborating with health promotion practitioners. *Health Promotion Practice*, 4(1), 51-55. <https://doi.org/10.1177/1524839902238291>
- Payne-James, J., Parapanos, L., Carpenter, K., & Lopez, B. (2023). The workload of a medical examiner service at an acute National Health Service hospital during the COVID-19 pandemic: The Norfolk & Norwich University Hospital experience. *Medicine, Science and the Law*, 63(1), 6-13. <https://doi.org/10.1177/00258024221087005>
- Ramadhan, M., Jalinus, N., Refdinal, R., Marsono, M., Syahra, Y., Nasyuha, A., & Hutasuhut, M. (2021). Analysis of fam in satisfaction of inpatient services. *Telkomnika (Telecommunication Computing Electronics and Control)*, 19(5), 1529. <https://doi.org/10.12928/telkomnika.v19i5.20295>



- Rizky, M., Jumadi, J., Sunariya, M., Kiat, U., & Fikriyah, V. (2023). Accessibility, distribution, and fulfillment of hospital needs in metro city, lampung with 2sfca method., 302-315. https://doi.org/10.2991/978-2-38476-066-4_19
- Salsabila, S. (2024). Implementation of leadership style to improve the quality of health services in hospitals: literature review. *World Journal of Advanced Research and Reviews*, 21(3), 1100-1104. <https://doi.org/10.30574/wjarr.2024.21.3.0814>
- Sani, W. and Santiago, F. (2021). *Covid-19 infected patient's service rights get health services from hospitals*. <https://doi.org/10.4108/eai.6-3-2021.2306447>
- Skarsgaard, B. K., Henriksen, T. H., Dahlberg, U., Løvvik, T. S., & Aune, I. (2024). Home-based postnatal care following early hospital discharge: A descriptive study of the health care service midwife home. *Sexual and Reproductive Healthcare*, 40, 100967. <https://doi.org/10.1016/j.srhc.2024.100967>
- Srimayarti, B., Leonard, D., & Yasli, D. (2021). Determinants of health service efficiency in hospital: a systematic review. *International Journal of Engineering Science and Information Technology*, 1(3), 87-91. <https://doi.org/10.52088/ijesty.v1i3.115>
- Suhermin, S. (2022). Empowerment as a mediation of organizational support. *Wiga Jurnal Penelitian Ilmu Ekonomi*, 12(4), 324-337. <https://doi.org/10.30741/wiga.v12i4.915>