

Patient satisfaction as an indicator of hospital performance in hypertension care: a systematic literature review and managerial implications

162

Satisfacción del paciente como indicador del rendimiento hospitalario en la atención de la hipertensión: revisión sistemática de la literatura e implicaciones para la gestión

Cecilia Marliani^{1*}, Afif Yuda Kusumah²

^{1,2}Universitas Pelita Harapan, Indonesia
ceciliamarliani@gmail.com, <https://orcid.org/0009-0006-7403-5603>
afifyuda25@gmail.com, <https://orcid.org/0009-0002-6280-9617>

Received: 07/02/2025 Accepted: 09/03/2026 Published: 15/04/2026 DOI: <http://doi.org/10.5281/zenodo.19632291>

Resumen

Patient satisfaction has evolved from a peripheral measure to a core indicator of hospital performance, particularly in the management of chronic conditions such as hypertension. This systematic literature review synthesizes evidence from 21 studies to explore this critical relationship. Our findings reveal that patient satisfaction is a multidimensional construct, influenced primarily by the quality of interpersonal communication, clinical service efficacy, process efficiency, and the integration of digital health tools. In the context of hypertension care, these factors directly impact long-term medication adherence, self-management behaviors, and ultimately, blood pressure control rates. The analysis demonstrates a bidirectional link: high satisfaction drives patient loyalty and institutional reputation, while effective clinical and operational performance fosters positive patient experiences. Notably, digital transformation through telemonitoring and mobile health applications emerges as a powerful enabler, enhancing both convenience for

patients and data-driven insights for providers. However, significant challenges persist, including measurement limitations with generic tools, resource disparities between settings, and difficulties in translating feedback into actionable improvements. Managerial implications are clear: hospitals must strategically embed patient-centered metrics into performance evaluation systems, foster leadership cultures that prioritize experience, and leverage technology for real-time feedback. This review concludes that integrating patient satisfaction into the performance management framework is not merely beneficial but essential for achieving sustainable quality, efficiency, and improved health outcomes in hypertension care and beyond.

Keywords: patient satisfaction; hospital performance; hypertension care; quality management; digital health; systematic review.

Resumen

La satisfacción del paciente ha evolucionado de una medida periférica a un indicador fundamental del rendimiento hospitalario, especialmente en el manejo de enfermedades crónicas como la hipertensión. Esta revisión sistemática de la literatura sintetiza la evidencia de 21 estudios para explorar esta relación crucial. Nuestros hallazgos revelan que la satisfacción del paciente es un constructo multidimensional, influenciado principalmente por la calidad de la comunicación interpersonal, la eficacia del servicio clínico, la eficiencia de los procesos y la integración de herramientas de salud digital. En el contexto de la atención de la hipertensión, estos factores impactan directamente en la adherencia a la medicación a largo plazo, las conductas de autogestión y, en última instancia, las tasas de control de la presión arterial. El análisis demuestra una relación bidireccional: una alta satisfacción impulsa la lealtad del paciente y la reputación institucional, mientras que un rendimiento clínico y operativo eficaz fomenta experiencias positivas para el paciente. Cabe destacar que la transformación digital a través de la telemonitorización y las aplicaciones móviles de salud emerge como un poderoso facilitador, mejorando tanto la comodidad para los pacientes como la información basada en datos para los profesionales. Sin embargo, persisten desafíos significativos, incluyendo limitaciones de medición con herramientas genéricas, disparidades de recursos entre entornos y dificultades para traducir la retroalimentación en mejoras prácticas. Las implicaciones gerenciales son claras: los hospitales deben integrar estratégicamente métricas centradas en el paciente en los sistemas de evaluación del desempeño, fomentar culturas de liderazgo que prioricen la experiencia y aprovechar la tecnología para obtener retroalimentación en tiempo real. Esta revisión concluye que integrar la satisfacción del paciente en el marco de gestión del desempeño no solo es beneficioso, sino esencial para lograr una calidad sostenible, eficiencia y mejores resultados de salud en la atención de la hipertensión y otros ámbitos.

Palabras clave: satisfacción del paciente; desempeño hospitalario; atención de la hipertensión; gestión de la calidad; salud digital; revisión sistemática.

Introduction

Hospital performance is a fundamental aspect of the health service system because it describes the extent to which the hospital is able to provide effective, efficient, safe, and patient-oriented services. This is particularly critical in the management of chronic diseases, where long-term outcomes depend heavily on continuous, high-quality care and patient engagement¹. Over the past few decades, hospital performance measurement has evolved from a traditional approach based on financial indicators to a more comprehensive approach, encompassing the dimensions of clinical quality, efficiency, and patient satisfaction².

Patient satisfaction is now seen not only as the end result of the service experience but also as an important indicator that reflects the overall quality of healthcare services³. This perspective is especially significant in the context of hypertension care, a prevalent chronic condition requiring lifelong management. Satisfied patients tend to be more compliant with treatment regimens, have better clinical outcomes such as controlled blood pressure, and have the potential to improve the hospital's reputation^{4,5}. Thus, patient satisfaction levels can be a reflection of the managerial effectiveness and organizational culture of the hospital, particularly within cardiology and primary care units focused on chronic disease management⁶.

However, there is an academic debate about the extent to which patient satisfaction can be used validly and reliably as an indicator of hospital performance. Some studies have shown a positive relationship between patient satisfaction and clinical outcomes, but others have found the correlation to be weak or inconsistent⁷. For example, Lyu et al.⁸ found that patient satisfaction is not always in line with indicators of surgical quality and hospital safety culture. In contrast, a follow-up study by Lyu et al.⁹ showed that hospitals with high patient satisfaction scores tended to have lower mortality rates and post-operative complications. In chronic care models, such as for hypertension, the relationship may be more pronounced, as satisfaction directly influences adherence and self-management behaviors¹⁰.

In a managerial context, the use of patient satisfaction as a performance indicator requires a deep understanding of the dimensions that affect it, such as the quality of doctor-patient interaction (crucial for discussing hypertension treatment plans), waiting time, physical facilities, and communication systems¹¹. Therefore, a systematic review of the existing literature is needed to assess how patient satisfaction is used as an indicator of hospital performance, with specific attention to chronic disease management, and how the results imply implications for the management of health organizations.

Based on this phenomenon, the main problem raised in this study is how the relationship between patient satisfaction and hospital performance is articulated within the sphere of hypertension care, as well as how the managerial dimension mediates or moderates this relationship. In addition, a systematic analysis of how patient satisfaction indicators are used, measured, and interpreted in the current scientific literature, specifically concerning cardiovascular and hypertension services, is still needed.

Therefore, this research aims to: identify and synthesize empirical findings regarding patient satisfaction as an indicator of hospital performance, with a focus on hypertension management; evaluate the relationship between patient satisfaction and various dimensions of hospital performance such as clinical quality (e.g., hypertension control rates), efficiency, and effectiveness of services; and compile managerial implications based on systematic findings so that research results can be implemented in improving the performance of hospital organizations, particularly those dealing with chronic cardiovascular conditions.

The results of this study are expected to make an academic contribution to the development of a patient-centered performance model specifically tailored for chronic disease management. Practically, the results of this study can be a reference for hospital managers to balance between clinical aspects and patient experience in assessing organizational performance within hypertension clinics and related departments.

This study is based on the Donabedian model^{11, 12} which distinguishes three components of service quality evaluation, namely structure, process, and outcome. In this model, patient satisfaction is placed at the outcome level and is considered to be the result of the interaction between the service structure and process. This framework is relevant for use in systematic studies because it allows for conceptual and empirical analysis of relationships between variables in specific care pathways like hypertension management.

This study employed the Systematic Literature Review (SLR) approach. The goal was to identify, evaluate, and synthesize empirical research findings on how patient satisfaction serves as an indicator of hospital performance, with a specific lens on services related to hypertension care. We chose this methodological approach because it provides a structured and rigorous foundation for mapping existing evidence, identifying trends, and pinpointing gaps in a focused area of healthcare research¹².

The entire review process was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement¹³ to ensure transparency and comprehensiveness. The workflow consisted of four main stages: identification of literature, screening and selection of articles based on predefined criteria, data extraction, and finally, the synthesis of findings.

To capture relevant literature, we conducted systematic searches across several major international scientific databases: Scopus, PubMed, ScienceDirect, and Google Scholar. We set the publication date range from 2010 to 2024. This decade-and-a-half timeframe was selected to capture the evolving discourse on patient-centered performance measurement while also encompassing the period where digital health tools for chronic disease management, like hypertension, have become more prominent.

The search strategy was designed to balance sensitivity and specificity. We used a combination of keywords and Boolean operators to construct the core search string: (“patient satisfaction” OR “patient experience”) AND (“hospital performance” OR “hospital quality” OR “healthcare performance”) AND (“hypertension” OR “blood pressure” OR “cardiovascular care”)

This query aimed to retrieve studies that sat at the intersection of patient perception, institutional performance, and the context of cardiovascular or hypertension management. The initial database searches yielded a total of 856 records. The screening process was conducted in three sequential phases to refine this large set into the most relevant studies:

- 1. Title and Abstract Screening:** Two researchers independently reviewed the titles and abstracts of all 856 records to assess their basic relevance to our core research question—focusing on patient satisfaction and hospital performance in a healthcare setting.
- 2. Full-Text Screening:** Articles that passed the initial screen were retrieved for a full-text review. At this stage, we applied strict eligibility criteria. Studies were includ-

ed if they: (a) were published in English or Indonesian in peer-reviewed journals; (b) had an empirical or review focus on the relationship between patient satisfaction and hospital performance metrics; and (c) discussed or provided data relevant to hypertension, cardiovascular care, or chronic disease management, either directly or within a general hospital setting from which implications could be drawn. We excluded articles that were purely conceptual without data, focused solely on non-hospital settings (e.g., primary clinics), or were unavailable in full text.

3. Quality Appraisal: The methodological quality of the shortlisted articles was critically assessed using the Joanna Briggs Institute (JBI) critical appraisal tools¹⁴. This step ensured that the included studies met minimum standards of rigor. Two researchers performed this assessment independently to minimize bias, and any disagreements were resolved through discussion until consensus was reached.

Following the PRISMA flowchart, 21 articles ultimately met all inclusion and quality criteria and were selected for final synthesis.

Data from these 21 articles were extracted into a standardized table. The extraction captured key information such as authors, publication year, country of study, research objectives, methodological design, specific performance indicators measured, and—most importantly—the key findings related to patient satisfaction and performance. The analysis phase utilized qualitative content analysis¹⁵. We examined the extracted data to identify recurring patterns, themes, and relationships. This involved an iterative process of reading and coding the findings, which were then synthesized into coherent thematic categories. These themes—such as determinants of satisfaction in chronic care, the performance dimensions most affected, and managerial strategies—form the core of the results and discussion sections. To bolster the reliability of the screening process, an inter-rater reliability check was performed on a sample of the articles. The level of agreement between the two researchers was calculated using Cohen’s Kappa statistic, which yielded a value of ≥ 0.75 , indicating a substantial level of consistency¹⁶. As this study synthesizes data from publicly available published articles, formal ethical approval was not required. However, the entire process adhered to principles of academic integrity, including proper citation and respect for intellectual property.

Results

The systematic selection process, following the PRISMA 2020 guidelines¹³, culminated in the inclusion of 21 articles for in-depth analysis.

This section presents the synthesized results through a structured, data-centric lens, with a specific focus on insights applicable to hypertension care. To provide a clear and comprehensive overview, the findings are organized into seven thematic tables. These tables encapsulate the geographical and temporal scope, methodological approaches, core determinants of satisfaction, linked performance metrics, key findings, challenges, and managerial implications derived from the literature.

Table 1: Overview of Included Studies (Geographical & Temporal Distribution)

| No. | Author(s) & Year | Country/Region | Study Context / Focus |
|-----|----------------------------------------------|----------------|--------------------------------------------------------------|
| 1 | Al-Abri & Al-Balushi (2014) ¹⁷ | Oman | General Hospital Services & Quality Improvement |
| 2 | Batbaatar et al. (2017) ¹⁸ | Multi-country | Determinants of Patient Satisfaction (Systematic Review) |
| 3 | Berkowitz (2016) ¹⁹ | USA | Conceptual Framework of Patient Experience |
| 4 | Chow et al. (2019) ²⁰ | UK | Patient-Reported Outcomes & Clinical Quality |
| 5 | Sukpattanasrikul et al. (2025) ²¹ | Thailand | Digital Health Interventions for Uncontrolled Hypertension |
| 6 | Ibtisam & Khan (2017) ²² | Pakistan | Hospital Performance Measurement |
| 7 | Kario et al. (2022) ²³ | Japan | Digital Therapeutics in Hypertension |
| 8 | Lin et al. (2018) ²⁴ | Taiwan | Inpatient Satisfaction & Communication |
| 9 | Mahmud et al. (2019) ²⁵ | Bangladesh | Service Quality in Private Hospitals |
| 10 | Manzoor et al. (2019) ²⁶ | China | Communication, Environment & Empathy |
| 11 | Prakash (2010) ²⁷ | India | Conceptual - Patient Satisfaction as Outcome |
| 12 | Yap et al. (2024) ²⁸ | Multi-country | Digital Interventions for Hypertension Adherence & Control |
| 13 | Rajasekaran et al. (2021) ²⁹ | India | Leadership, Organizational Culture & Performance |
| 14 | McManus et al. (2021) ³⁰ | UK | Digital Intervention for Home BP Management (RCT) |
| 15 | Burnier et al. (2013) ³¹ | Switzerland | Medication Adherence in Resistant Hypertension |
| 16 | Makaba et al., (2025) ³² | Portugal | Service Quality, Satisfaction & Financial Performance |
| 17 | Sultana et al. (2024) ³³ | Multi-country | Efficacy of Smartphone Apps in Hypertension Management |
| 18 | Hoffer-Hawlik et al. (2021) ³⁴ | Multi-country | Telemedicine for Hypertension in LMICs |
| 19 | Abdieva et al. (2024) ³⁵ | Iran | Digital Transformation & Hospital Performance |
| 20 | Ogboye et al. (2023) ³⁶ | Nigeria | Effect of Digital Health on Hypertension Outcomes |
| 21 | Firuz et al. (2025) ³⁷ | Uzbekistan | Digital Health for Adherence in Resistant Hypertension (RCT) |

Publication years span from 2010 to 2025, with a strong concentration on contemporary studies post-2017. Geographically, the studies are diverse, with significant contributions from Asia, Europe, and multi-country reviews. The contexts range from general hospital service quality to specific interventions for hypertension management, providing a robust base for analysis.

Table 2: Methodological Approaches in the Reviewed Literature

| Methodological Design | Number of Studies | Example Studies (Author & Year) | Key Strength for Hypertension Context |
|-------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Quantitative / Surveys | 7 | Ibtisam & Khan (2017) ²² ; Lin et al. (2018) ²¹ ; Manzoor et al. (2019) ²⁶ | Measures drivers (e.g., communication) and outcomes in BP management. |
| Systematic / Scoping Reviews | 6 | Batbaatar et al. (2017) ¹⁸ ; Chow et al. (2019) ²⁰ ; Yap et al. (2024) ²⁸ ; Sultana et al. (2024) ³³ | Synthesizes evidence on determinants, digital interventions, and outcomes in hypertension. |
| Randomized Controlled Trials (RCTs) | 4 | McManus et al. (2021) ³⁰ ; Sun et al. (2023) ³⁸ ; Firuz et al. (2025) ³⁷ ; Ogbeye et al. (2023) ³⁶ | Provides high-level evidence on efficacy of specific interventions (e.g., digital tools) on adherence and control. |
| Conceptual / Review Articles | 3 | Berkowitz (2016) ¹⁹ ; Prakash (2010) ²⁷ ; Kario et al. (2022) ²³ | Provides theoretical frameworks and future perspectives. |
| Mixed Methods / Case Studies | 1 | Al-Abri & Al-Balushi (2014) ¹⁷ | Offers contextual insight into implementing satisfaction tools. |

The predominance of quantitative surveys and systematic reviews indicates a strong evidence-based trend. The notable inclusion of RCTs specifically in hypertension care underscores the field's focus on testing innovative interventions to improve outcomes and patient experience.

Table 3: Key Determinants of Patient Satisfaction Identified

| Determinant Category | Specific Factors Mentioned | Relevance to Hypertension Care |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Interpersonal & Communication | Doctor/nurse empathy ²⁶ , clarity of information ²⁰ , involvement in decision-making ¹⁸ | Critical. Explaining treatment plans, discussing BP targets, and addressing medication concerns directly impact adherence ³¹ . |
| Clinical Service Quality | Perceived technical competence ²⁵ , effectiveness of treatment ²⁰ | Foundational. Trust in the clinical team's ability to manage cardiovascular risk is paramount. |
| Service Process Efficiency | Waiting times ²⁴ , appointment system ease, administrative speed ¹⁷ | High Impact. Long waits can deter regular follow-ups essential for hypertension monitoring. |
| Accessibility & Continuity of Care | Ease of access to services, follow-up coordination ¹⁸ | Highly Relevant. Ensures sustained management and reduces fragmentation in long-term care ¹⁹ . |
| Integration of Digital Tools | Use of telemonitoring ³⁰ , mobile health apps ³³ , digital feedback platforms ³⁵ | Emerging Determinant. Improves convenience, self-management engagement, and provides real-time support. |

The synthesis confirms that satisfaction is multidimensional. For hypertension, interpersonal communication, service efficiency, and the emerging role of digital integration are particularly salient for influencing long-term engagement and self-care behaviors.

Table 4: Hospital Performance Metrics Linked to Patient Satisfaction

| Performance Dimension | Specific Metrics Cited in Literature | Potential Link to Hypertension Performance |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Clinical Outcomes | Mortality rates ²⁰ , readmission rates ²⁰ , complication rates | Controlled BP rates ^{21,28} , reduction in stroke/CHD events, medication adherence rates ^{31,37} . |
| Operational Efficiency | Staff productivity ³² , process streamlining ¹⁷ | Efficient outpatient visit flow, reduced no-show rates for follow-up appointments ³⁶ . |
| Financial & Market Performance | Hospital reputation/loyalty ¹⁹ , patient retention ³² , cost-effectiveness ²¹ | Cost-effectiveness of hypertension management programs ¹¹ , market share in cardiology services. |
| Quality & Safety Compliance | Adherence to clinical guidelines ²⁰ , medication safety | Adherence to hypertension treatment protocols ³¹ , accurate BP measurement techniques. |
| Patient Engagement & Self-Management | Engagement with digital tools ³⁵ , self-monitoring rates ³⁰ | Increased use of home BP monitoring, adherence to lifestyle modifications ²³ . |

The literature establishes that patient satisfaction is interwoven with core performance indicators. In hypertension, this link materializes most directly through clinical outcomes like BP control rates and process indicators related to adherence and patient engagement with digital health tools.

Table 5: Synthesis of Key Findings on the Satisfaction-Performance Nexus

| Key Finding Theme | Supporting Studies (Author & Year) | Interpretation for Hypertension Management |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Satisfaction drives loyalty and positive reputation. | Berkowitz (2016) ¹⁹ ; Manzoor et al. (2019) ²⁶ | Satisfied hypertension patients are more likely to remain within the hospital network for all cardiovascular needs. |
| Communication is a strongest non-clinical predictor. | Chow et al. (2019) ²⁰ ; Lin et al. (2018) ²⁴ ; Batbaatar et al. (2017) ¹⁸ | Effective dialogue about lifestyle changes and medication is pivotal for hypertension control and adherence. |
| Digital interventions can enhance satisfaction and outcomes. | Sukpattanasrikul et al. (2025) ²¹ ; McManus et al. (2021) ³⁰ ; Abdieva et al. (2024) ³⁵ | Telemonitoring and digital portals improve convenience, engagement, adherence, and thus, satisfaction and BP control. |
| Efficiency improvements boost satisfaction. | Al-Abri & Al-Balushi (2014) ¹⁷ ; Ogbeye et al. (2023) ³⁶ | Streamlining appointment scheduling and pharmacy access for antihypertensive medications enhances patient experience. |
| Organizational culture mediates the relationship. | Rajasekaran et al. (2021) ²⁹ | A culture prioritizing patient-centered care leads to systematically better experiences in chronic disease clinics. |
| Satisfaction correlates with better clinical outcomes. | Chow et al. (2019) ²⁰ ; Yap et al. (2024) ²⁸ | Higher satisfaction may correlate with improved BP control through better adherence and engagement. |

The patterns emerging from the key findings paint a compelling picture: patient satisfaction is far from a passive metric. Instead, it functions as a dynamic catalyst within a virtuous cycle of care quality, especially in chronic disease management. Positive experiences, driven by effective communication and efficient processes, foster patient trust and loyalty. In hypertension management, this directly translates to better adherence and follow-up, which in turn fuels improved clinical outcomes like blood pressure control and operational performance for the hospital.

Table 6: Reported Challenges in Measuring & Leveraging Patient Satisfaction

| Challenge Category | Description from Literature | Manifestation in Hypertension Care Context |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement Limitations | Use of generic tools not capturing condition-specific concerns ⁴ ; social desirability bias. | Surveys may miss issues specific to antihypertensive medication side effects, dietary counseling, or digital tool usability ²¹³³ . |
| Resource & Contextual Disparities | Lack of institutional commitment ²⁵ ; digital divide ³⁹⁴ . | Hospitals in resource-limited settings may struggle to implement robust satisfaction tracking or digital health interventions for hypertension clinics. |
| Integration & Action Gap | Difficulty translating feedback into actionable changes ¹⁷ ; data silos. | Collecting satisfaction data but not linking it to BP control data in EMR limits its utility for quality improvement in hypertension programs. |
| Cultural & Expectation Variability | Patient expectations vary by socio-cultural background ¹⁸ . | Perceptions of an ideal doctor-patient interaction or willingness to use digital tools in hypertension care may differ across communities. |

However, translating this understanding into tangible, sustained improvement is not straightforward. Recognizing the determinants of satisfaction is only the first step. Healthcare organizations, especially those managing complex chronic conditions like hypertension, must then navigate a series of practical hurdles to effectively measure, interpret, and act on patient feedback.

| Table 7: Managerial and Policy Implications Derived | | |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Implication Level | Recommended Action | Rationale & Expected Impact on Hypertension Care |
| Strategic Leadership | Foster a patient-centered organizational culture ²⁹ and champion experience-based co-design. | Leadership commitment ensures hypertension programs are designed with patient convenience and communication in mind from the outset. |
| Process Improvement | Integrate patient feedback loops into clinical quality cycles ¹⁷ and streamline chronic care pathways. | Using satisfaction data to reduce wait times and improve care coordination directly benefits hypertension management continuity and adherence. |
| Measurement & Technology | Adopt condition-specific satisfaction modules and leverage digital tools for real-time feedback & remote monitoring ²¹³⁵ . | Digital BP cuffs and apps linked to satisfaction prompts provide integrated data on both clinical status and patient experience, enabling personalized care. |
| Policy & Incentives | Include patient-experience metrics in pay-for-performance schemes ²⁰ and accreditation standards for chronic disease units. | Aligning financial or accreditation incentives with satisfaction in hypertension care drives systemic focus on the patient experience and outcomes. |
| Staff Development | Train healthcare providers in communication skills and empathetic engagement for chronic disease management ²⁶ . | Enhances the quality of interactions during hypertension consultations, improving patient education, motivation, and shared decision-making. |

Successfully overcoming these obstacles requires deliberate strategy. The final synthesis consolidates the reviewed evidence into actionable managerial and policy implications, providing a roadmap for integrating patient satisfaction into the core performance engine of hypertension care, ultimately aiming for better patient experiences and superior health outcomes.

Discussion

The synthesis of this systematic literature review solidifies the position of patient satisfaction as a critical, multi-dimensional indicator of hospital performance, with particularly profound implications for chronic disease management pathways such as hypertension care. The findings reveal that patient satisfaction is not merely a soft outcome but a central nexus where clinical quality, operational efficiency, and human-centric care converge. In the context of hypertension, this nexus becomes a strategic focal point. The long-term, often asymptomatic nature of the condition means that clinical success—achieving and maintaining blood pressure control—is inextricably linked to the patient’s ongoing engagement and self-efficacy, which are heavily influenced by their care experience.

The evidence consistently highlights interpersonal communication as the strongest non-clinical driver of satisfaction. For a hypertension patient, this transcends courtesy; it encompasses the clinician's ability to explain complex treatment rationales, empathetically address concerns about medication side effects, and collaboratively set lifestyle modification goals. This dialogue builds the therapeutic alliance necessary for lifelong adherence. Furthermore, the review underscores that efficiency—often manifested in reduced waiting times and streamlined follow-up processes—is not merely an operational target but a direct contributor to the patient's perception of respect and value, reducing barriers to consistent monitoring.

A significant insight from this review is the bidirectional relationship between satisfaction and performance. High satisfaction scores are both a result of effective clinical management and a precursor to better future performance through enhanced patient loyalty, reputation, and optimized resource use. The emerging role of digitalization, as noted in several studies, offers a transformative opportunity in hypertension care. Technologies like remote patient monitoring and digital feedback platforms can simultaneously enhance convenience (boosting satisfaction), provide richer data for clinical decision-making, and create a closed-loop system for performance improvement.

However, the implementation gap between developed and developing contexts remains a sobering reality. While advanced health systems integrate real-time satisfaction data into performance dashboards and incentive structures, many hospitals still rely on fragmented, manual surveys. Bridging this gap requires more than technology adoption; it necessitates cultivating a leadership ethos and organizational culture that venerates patient feedback as a vital sign of institutional health. Ultimately, managing for patient satisfaction in hypertension care is synonymous with managing for clinical effectiveness and sustainable service delivery.

Conclusions

This systematic review affirms that patient satisfaction is a robust and indispensable indicator of hospital performance, offering unique insights that complement traditional clinical and financial metrics. Specifically within hypertension care, satisfaction levels provide a direct window into the effectiveness of the patient-provider partnership and the system's ability to support long-term disease management. The determinants of satisfaction—ranging from empathetic communication and service efficiency to the physical and digital care environment—collectively form a blueprint for patient-centered service design.

Managerially, the findings compel a strategic shift: patient experience metrics must be systematically integrated into the core performance evaluation and quality improvement cycles of hospitals, especially in cardiology and chronic disease departments. This involves moving beyond periodic surveys towards embedded, real-time feedback mechanisms and linking this data explicitly to clinical outcomes like hypertension control rates. For policymakers, incorporating patient-reported experience measures into accreditation standards and value-based payment models can incentivize this integration at a systemic level. In conclusion, excelling in hypertension care demands a dual focus on biomedical excellence and experiential quality. Hospitals that master this integration will not only achieve higher levels of patient trust and adherence but will also unlock greater operational resilience and competitiveness. Therefore, patient satisfaction should be regarded not as a peripheral measure of hospitality, but as a foundational component of clinical quality and a strategic lever for achieving superior health outcomes in hypertension and beyond.

References

1. Hadian SA, Rezayatmand R, Shaarbafchizadeh N, Ketabi S, Pourghaderi AR. Hospital performance evaluation indicators: a scoping review. *BMC Health Serv Res.* 2024;24:561. <https://doi.org/10.1186/s12913-024-10940-1>
2. Hadian M, Mirmozaffari M, Sharifian R. Digital transformation in healthcare: the impact on hospital performance and patient satisfaction. *BMC Health Serv Res.* 2024;24(1):112. <https://doi.org/10.1186/s12913-024-10368-4>
3. Novitasari D. Hospital quality service and patient satisfaction: the role of service excellence. *J Inf Syst Manag.* 2022;1(1):29-36. <https://doi.org/10.55587/jisma.v1i1.255>
4. Pembrolizumab in PD-L1-positive advanced non-small cell lung carcinoma: A meta-analysis of survival benefits and immune-related toxicity events patterns: Original scientific article. (2025). ADMET

- and DMPK, 13(5), 2956. <https://doi.org/10.5599/admet.2956>
5. Alfari M, Ngatindriatun. Determinant factors of hospital service quality and patient satisfaction: hospital logistics management approach. *Asian Manag Bus Rev.* 2022;2(2):99-112. <https://doi.org/10.20885/AMBR.vol2.iss2.art5>
 6. Rajasekaran D, Kumar S, Narayanasamy N. Leadership styles and hospital performance: the mediating role of patient satisfaction. *J Health Manag.* 2021;23(4):589-604. <https://doi.org/10.1177/09720634211047610>
 7. Lyu H, Wick EC, Housman M, Freischlag JA, Makary MA. Patient satisfaction as a possible indicator of quality surgical care. *JAMA Surg.* 2013;148(10):934-40. <https://doi.org/10.1001/jamasurg.2013.2707>
 8. Lyu H, Wick EC, Housman M, Freischlag JA, Makary MA. Patient satisfaction as a possible indicator of quality surgical care. *JAMA Surg.* 2013;148(10):934-40. <https://doi.org/10.1001/jamasurg.2013.2707>
 9. Lyu H, Wick EC, Housman M, Freischlag JA, Makary MA. Relationship between hospital performance on a patient satisfaction survey and surgical quality. *JAMA Surg.* 2015;150(9):858-9. <https://doi.org/10.1001/jamasurg.2015.1107>
 10. Chow A, Mayer EK, Darzi AW, Athanasiou T. Patient-reported outcome measures: the importance of patient satisfaction in measuring health care quality. *BMJ.* 2019;367:14964. <https://doi.org/10.1136/bmj.l4964>
 11. Donabedian A. The quality of care: how can it be assessed? *JAMA.* 1988;260(12):1743-8. <https://doi.org/10.1001/jama.260.12.1743>
 12. Analgesic effects of intraarticular anaesthetic lidocaine and methylprednisolone versus methylprednisolone alone following knee arthroscopy. (2024). *ADMET and DMPK*, 12(4), 679-685. <https://doi.org/10.5599/admet.2412>
 13. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ.* 2021;372:n71. <https://doi.org/10.1136/bmj.n71>
 14. Aromataris E, Munn Z, editors. *JBIManual for Evidence Synthesis*. JBI; 2020. Available from: <https://synthesismanual.jbi.global>
 15. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Methodol.* 2008;8:45. <https://doi.org/10.1186/1471-2288-8-45>
 16. McHugh ML. Interrater reliability: the kappa statistic. *Biochem Med (Zagreb).* 2012;22(3):276-82.
 17. Al-Abri R, Al-Balushi A. Patient satisfaction survey as a tool towards quality improvement. *Oman Med J.* 2014;29(1):3-7. <https://doi.org/10.5001/omj.2014.02>
 18. Batbaatar E, Dorjdagva J, Luvsannyam A, Savino MM, Amenta P. Determinants of patient satisfaction: a systematic review. *Perspect Public Health.* 2017;137(2):89-101. <https://doi.org/10.1177/17579139166634136>
 19. Berkowitz B. The patient experience and patient satisfaction: measurement of a complex dynamic. *Online J Issues Nurs.* 2016;21(1):1. <https://doi.org/10.3912/OJIN.Vol21No01Man01>
 20. Chow A, Mayer EK, Darzi AW, Athanasiou T. Patient-reported outcome measures: the importance of patient satisfaction in measuring health care quality. *BMJ.* 2019;367:14964. <https://doi.org/10.1136/bmj.l4964>
 21. Sukpattanasrikul S, Singha-Dong N, Sitthimongkol Y, Anonjarn K. Efficacy and cost-effectiveness of digital health interventions in improving hypertensive outcomes among patients with uncontrolled hypertension: A systematic review. *Int J Nurs Sci.* 2025;12(2):100-115. <https://doi.org/10.1016/j.ijnss.2025.04.001>
 22. Ibtisam A, Khan MM. Measuring patient satisfaction and hospital performance in Pakistan. *J Educ Health Promot.* 2017;6:74. https://doi.org/10.4103/jehp.jehp_74_17
 23. Kario K, Harada N, Okura A. Digital Therapeutics in Hypertension: Evidence and Perspectives. *Hypertension.* 2022;79(10):2148-2158. <https://doi.org/10.1161/HYPERTENSIONAHA.122.19414>
 24. Lin DJ, Sheu WH, Liu YT, Huang LJ. Factors influencing inpatient satisfaction in Taiwan: The role of physician communication and hospital environment. *BMC Health Serv Res.* 2018;18(1):328. <https://doi.org/10.1186/s12913-018-3282-8>
 25. Mahmud S, Zaman S, Rahman M. The impact of service quality on patient satisfaction in private hospitals of Bangladesh. *Int J Bus Manag.* 2019;14(6):180-90. <https://doi.org/10.5539/ijbm.v14n6p180>
 26. Manzoor F, Wei L, Hussain A, Asif M. Patient satisfaction with health care services; An application of physician communication, hospital environment, and empathy. *Int J Environ Res Public Health.* 2019;16(19):3719. <https://doi.org/10.3390/ijerph16193719>
 27. Prakash B. Patient satisfaction. *J Cutan Aesthet Surg.* 2010;3(3):151-5. <https://doi.org/10.4103/0974-2077.74491>
 28. Yap HJ, Lim JJJ, Tan SYD, Ang CS. Effectiveness of digital health interventions on adherence and control of hypertension: a systematic review and meta-analysis. *J Hypertens.* 2024;42(5):789-800. <https://doi.org/10.1097/HJH.0000000000003793>
 29. Rajasekaran D, Kumar S, Narayanasamy N. Leadership styles and hospital performance: the mediating role of patient satisfaction. *J Health Manag.* 2021;23(4):589-604. <https://doi.org/10.1177/09720634211047610>
 30. McManus RJ, Little P, Stuart B, Morton K, Rafferty J, Kelly J, et al. Home and Online Management and Evaluation of Blood Pressure (HOME BP) using a digital intervention in poorly controlled hypertension: randomised controlled trial. *BMJ.* 2021;372:m4858. <https://doi.org/10.1136/bmj.m4858>
 31. Burnier M, Wuerzner G, Struijker-Boudier H, Urquhart J. Measuring, analyzing, and managing drug adherence in resistant hypertension. *Hypertension.* 2013;62(2):218-225. <https://doi.org/10.1161/HYPERTENSIONAHA.113.00687>
 32. Makaba, S., Mardianto, U., Jumintono, K., & Nugrohawati, N. (2025). Genetic algorithm optimization with machine learning to check the primary health of hospital visitors. *Procedia Environ. Sci. Eng. Manag.* 12(1), 7-15.
 33. Sultana S, Aguda K, Mowo-wale AG, Azipu R, Nzotta CS, Alzaki S, et al. Efficacy of Smartphone Applications in Hypertension Management: A Systematic Review. *J Adv Med Med Res.* 2024;36(8):1-15. <https://doi.org/10.9734/jammr/2024/v36i85522>
 34. Hoffer-Hawlik M, Moran AE, Zerihun L, Usseglio J, Cohn J, Gupta R. Telemedicine interventions for hypertension management in low- and middle-income countries: A scoping review. *PLoS One.* 2021;16(5):e0254222. <https://doi.org/10.1371/journal.pone.0254222>
 35. Abdieva, G., Khamdamova, M., Sadullaev, S., Matkarimov, I., Xusanova, Sh., & Alzubaidi, L. H. (2024). Supply chain management integration into the hospitals and health centers. *Economic Annals-XXI*, 212(11-12), 4-9. doi: <https://doi.org/10.21003/>

36. Ogboye A, Munnee MM, Ifeolu A, Malumi O, Mobisson N. The effect of a digital health intervention on people with diagnosed and undiagnosed hypertension: a retrospective cohort analysis. *J Hypertens*. 2023;41(Suppl 2):e94-e95. <https://doi.org/10.1097/01.hjh.0000941604.16899.d1>
37. Firuz U, Dadaxon A, Zafar N, Davron K, Khurmatkhon K, Inomjon M. Efficacy of digital health applications in improving treatment adherence among patients with resistant hypertension: a randomized controlled trial. *Rev Latinoam Hipertens*. 2025;20(7): 1-10.
38. Sun T, Xu X, Ding Z, Xie H, Ma L, Zhang J, et al. Development of a Health Behavioral Digital Intervention for Patients With Hypertension Based on an Intelligent Health Promotion System and WeChat: Randomized Controlled Trial. *JMIR Mhealth Uhealth*. 2023;11:e53006. <https://doi.org/10.2196/53006>