



The Role of Digital Health Technologies in Enhancing Service Quality Perception and Patient Satisfaction in India: An Empirical Study using SERVQUAL and SPO Framework

1.Mr.KSHITIJ KUMAR

MBA in Hospital and Healthcare Management Lovely professional University

(kulrajkshitij1405@gmail.com)

2.Mr.SURAJ SHARMA

MBA in Hospital and Healthcare Management

Lovely professional University (surajsharma758763@gmail.com)

3.Dr. KISHORE KUMAR

Associate professor

Lovely professional University (kishore.unique4all@gmail.com)

How to Cite this Article:

KUMAR, K. & SHARMA, S. (2026). The Role of Digital Health Technologies in Enhancing Service Quality Perception and Patient Satisfaction in India: An Empirical Study using SERVQUAL and SPO Framework. International Journal of Creative and Open Research in Engineering and Management, <i>02</i>(04). <https://doi.org/10.55041/ijcope.v2i4.397>

License:

This article is published under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and the source are credited.

© The Author(s). Published by International Journal of Creative and Open Research in Engineering and Management.



<https://doi.org/10.55041/ijcope.v2i4.397>

Abstract

Digital health technologies have significantly transformed healthcare delivery systems worldwide. In India, initiatives such as telemedicine, electronic health records (EHRs), and artificial intelligence (AI)-based diagnostics have enhanced accessibility and efficiency. However, their impact on patient-perceived service quality and satisfaction remains underexplored. This study investigates the relationship between digital health technologies, service quality perception, and patient satisfaction using SERVQUAL and Donabedian's Structure-Process-Outcome (SPO) framework. A quantitative approach was adopted, collecting data from 200 patients through structured questionnaires. Statistical analysis revealed that patient safety ($\beta = 0.68$, $p < 0.001$) and service quality ($\beta = 0.42$, $p < 0.001$) significantly influence patient satisfaction. The findings highlight the importance of reliability, assurance, and digital trust while identifying usability and accessibility challenges. The study provides implications for healthcare providers and policymakers to improve digital healthcare delivery.

Keywords

Digital Health, Patient Satisfaction, Service Quality, SERVQUAL, SPO Model, India, Telemedicine



1. Introduction

The healthcare industry has undergone rapid transformation due to the integration of digital technologies. Innovations such as telemedicine, mobile health applications, electronic health records, and AI-driven diagnostics have revolutionized patient care delivery. In India, the adoption of digital health technologies has accelerated, especially after the COVID-19 pandemic, supported by government initiatives like the Ayushman Bharat Digital Mission.

Despite these advancements, the relationship between digital healthcare services and patient satisfaction is still evolving. While digital tools improve efficiency and access, their effectiveness ultimately depends on patient perception of service quality. Therefore, it is essential to understand how digital health technologies influence service quality dimensions and patient satisfaction.

2. Literature Review

Existing literature indicates that digital health technologies improve operational efficiency, reduce medical errors, and enhance accessibility. Studies suggest that telemedicine reduces waiting time and improves patient convenience, while EHR systems enhance accuracy and continuity of care.

However, patient satisfaction is influenced not only by technical efficiency but also by perceived quality. The SERVQUAL model highlights five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. Similarly, Donabedian's SPO framework links healthcare quality with structure, process, and outcomes.

Research gaps exist in developing countries like India, where digital literacy, infrastructure, and accessibility vary significantly. This study addresses these gaps by empirically analyzing patient perceptions.

Conceptual Framework

This study integrates:

- **SERVQUAL Model** → Measures perceived service quality
- **SPO Model** → Evaluates healthcare system effectiveness

Model:

Digital Health → Service Quality → Patient Safety → Patient Satisfaction

This framework explains how digital tools improve healthcare processes and ultimately influence patient outcomes.

The SERVQUAL Model and Its Application to Healthcare

Parasuraman, Zeithaml, and Berry (1988) developed the SERVQUAL model a foundational framework for assessing service quality across industries, including healthcare. It identifies five critical dimensions:

1. **Tangibility:** The physical evidence of the service such as medical facilities, appearance of staff, hygiene, and availability of modern medical technologies.

➤ *In digital health*, tangibility extends to usability and interface design of telehealth apps, patient portals, and wearable devices.

2. **Reliability:** The ability to deliver promised healthcare services dependably and accurately.

➤ This includes consistent diagnosis, treatment follow-up, and accurate record-keeping all of which are strengthened by Electronic Health Records (EHRs) and clinical decision support systems.

3. **Responsiveness:** The willingness to help patients promptly and provide timely medical assistance.

➤ Digital tools such as teleconsultation platforms, chatbots, and AI triage systems enhance responsiveness by enabling



24/7 access to medical guidance.

4. Assurance: The competence, courtesy, and credibility of healthcare providers that instill trust and confidence in patients.

➤ In digital healthcare, assurance depends on data privacy, cybersecurity, and ethical standards that reassure patients about the safety of online consultations and data sharing.

4. Hypotheses

- **H1:** Service quality positively influences patient satisfaction
- **H2:** Patient safety perception significantly influences patient satisfaction

5. Research Methodology

A quantitative descriptive research design was adopted.

- **Sample Size:** 200 patients
- **Data Collection:** Structured questionnaire
- **Scale:** Likert Scale (1–5)
- **Analysis Tools:** SPSS (Correlation, Regression, Cronbach Alpha)

6. Results and Analysis

6.1 Demographic Analysis

- Majority aged 31–45 years
- 55% male, 45% female
- 60% frequent digital health users

6.2 Reliability Test

Cronbach's Alpha = 0.88 → High reliability

6.3 Correlation Analysis

Strong positive correlation between:

- Service Quality & Satisfaction ($r = 0.72$)
- Patient Safety & Satisfaction ($r = 0.75$)

6.4 Regression Analysis

- Patient Safety → $\beta = 0.68$ (Strongest predictor)
- Service Quality → $\beta = 0.42$
- $R^2 = 0.64$



7. Discussion

The findings confirm that digital health technologies significantly improve patient satisfaction by enhancing service quality and safety. Assurance and reliability emerged as the most influential dimensions, reflecting patient trust in digital systems.

However, tangibility (interface design, usability) scored lower, indicating the need for better user experience. This is particularly relevant in India, where digital literacy varies widely.

8. Implications

For Healthcare Providers

- Improve digital platform usability
- Ensure strong data security
- Provide personalized digital communication

For Policymakers

- Expand digital infrastructure
- Promote digital literacy
- Strengthen cybersecurity regulations

9. Conclusion

Research Alignment and Expected Contributions

Each objective directly aligns with the study's overall aim of linking digital transformation with patient-centered quality improvement:

Objective	Framework Linkage	Expected Outcome
1. Relationship between technology and perceived quality	SERVQUAL Quality dimensions	Quantitative evidence on quality perception
2. Assessment of patient satisfaction	Donabedian Outcome domain	Satisfaction metrics and influencing factors
3. Identification of challenges/enablers	Structure and Process components	Thematic insights on adoption and equity
4. Strategic recommendations	Integrated policy synthesis	Actionable framework for safe digital care

Through these objectives, the study intends to fill a critical research void by connecting technological advancement with human experience, ensuring that digital innovation supports the dual goals of quality assurance and patient safety.



Summary

Digital health technologies function as integrated enablers of both service quality and patient safety, aligning with all three dimensions of the SPO framework:

SPO Dimension	Digital Mechanism	Impact on Quality & Safety
Structure	Digital infrastructure (EHRs, IoMT, data networks)	Provides the foundation for safe, coordinated care
Process	Standardized workflows, AI-assisted decision support	Reduces variability and human error
Outcome	Real-time analytics, transparency, patient engagement	Improves satisfaction, trust, and clinical outcomes

By integrating these mechanisms, healthcare systems evolve from reactive care to predictive, preventive, and participatory models building a culture where quality improvement and patient safety are mutually reinforcing.

1. Challenges and Ethical Considerations

While digital health technologies have significantly improved service quality, efficiency, and patient safety, their widespread implementation has also generated ethical, social, and operational challenges. These challenges concern not only the technical reliability of digital systems

2. Data Privacy and Cybersecurity Concerns

The digitization of health information has made data privacy and cybersecurity critical components of patient safety and trust. Electronic Health Records (EHRs), telemedicine platforms, and wearable devices collect vast quantities of personal and clinical data. Any breach or unauthorized use of this information can have serious implications for patient welfare and institutional credibility.

1. Global Perspective: According to IBM Security (2023), the healthcare sector experienced the *highest average cost of data breaches* for 13 consecutive years, averaging USD 10.9 million per incident.

2. Indian Context: The Digital Personal Data Protection Act (DPDP), 2023 seeks to safeguard sensitive personal data, yet many healthcare institutions lack comprehensive compliance and cybersecurity training programs.

Consequences of poor digital security include:

3. Erosion of patient trust and reduced willingness to engage with digital services.
4. Potential clinical harm if medical data are manipulated or lost.
5. Legal and ethical violations of patient autonomy and confidentiality.

Therefore, robust data governance frameworks including encryption, access control, audit trails, and institutional cybersecurity audits are indispensable for maintaining ethical standards in digital healthcare systems.



1.2 The Digital Divide and Health Equity

The benefits of digital health innovations are not evenly distributed across all populations. The digital divide the gap between those with reliable access to technology and those without creates a barrier to equitable healthcare.

1. Rural and Elderly Populations: Limited internet penetration, digital illiteracy, and low smartphone ownership in rural India impede access to telemedicine and electronic health services.
2. Socioeconomic Barriers: The cost of digital devices and connectivity excludes low-income patients from the advantages of digital monitoring and virtual consultation.

The National Sample Survey (2021) reported that only 31% of rural households in India had internet access, compared with 67% in urban areas. This imbalance limits the reach of digital health programs under the Ayushman Bharat Digital Mission (ABDM), potentially widening healthcare inequalities.

Ethically, this raises the question of justice and fairness a key principle in biomedical ethics (Beauchamp & Childress, 2019). To ensure inclusivity, policymakers must promote universal digital literacy, affordable internet, and multilingual platforms to bridge this divide.

1.3 Technology Fatigue and Human Disconnection

The increasing use of digital interfaces can cause technology fatigue among healthcare professionals, leading to reduced attentiveness and diminished human connection with patients.

1. Administrative Overload: Studies have shown that clinicians spend up to 50% of their working hours entering data into EHR systems rather than engaging directly with patients (Shanafelt et al., 2021).
2. Cognitive Burden: Excessive digital documentation and constant alert notifications can result in “alert fatigue,” causing staff to overlook critical safety warnings.
3. Loss of Empathy: Overreliance on screens may undermine the interpersonal dimension of care the empathy, reassurance, and communication that patients value as part of perceived quality.

In India, healthcare professionals in high-volume tertiary hospitals report that poorly designed digital systems disrupt workflow and increase stress levels (Malik & Bansal, 2025).

A human-centered design approach where digital tools support rather than replace clinician– patient interaction is essential. Regular training, user feedback loops, and ergonomic design principles can minimize technology fatigue and preserve compassionate care.

1.4 Algorithmic Bias and Ethical AI

Artificial intelligence (AI) and machine learning (ML) models have revolutionized diagnostics and clinical decision-making, but they also introduce algorithmic bias that may perpetuate existing health disparities.

1. Bias Sources: If AI models are trained on non-representative datasets (e.g., primarily urban or Western populations), they may misdiagnose conditions in underrepresented groups.
2. Global Example: Obermeyer et al. (2019) found that an AI tool used in U.S. hospitals underestimated the care needs of Black patients by nearly 40%, due to biased data inputs.
3. Indian Relevance: Locally developed diagnostic algorithms must account for genetic, demographic, and socio-environmental variability within India’s diverse population.

Unchecked algorithmic bias can lead to ethical violations of fairness, nonmaleficence, and justice. To mitigate this, AI systems should undergo:



4. Independent ethical audits for bias detection and transparency.
5. Diverse dataset training to reflect the heterogeneity of real-world populations.
6. Explainable AI (XAI) approaches to ensure clinical accountability.

By aligning algorithmic development with bioethical standards and regulatory oversight, healthcare systems can ensure that AI serves as a tool for equality rather than exclusion.

1.5 Balancing Efficiency with Ethical Responsibility

Ultimately, the challenge lies in harmonizing technological efficiency with ethical accountability. Digital systems must enhance safety and quality without compromising privacy, empathy, or fairness.

1. Governance frameworks should combine technical safeguards (encryption, access control) with ethical oversight (informed consent, transparency).
2. Inclusive design should prioritize accessibility for all populations, particularly marginalized groups.
3. Continuous ethical review should accompany every stage of digital health adoption, from system design to real-world deployment.

The World Health Organization’s Global Strategy on Digital Health (2020–2025) emphasizes that “*digital health must be people-centered, ethical, and inclusive.*”

Ethical responsibility, therefore, is not ancillary but foundational to maintaining patient safety, trust, and perceived service quality in the digital era.

12.6 Summary of Implications

Challenge	Ethical Implication	Recommended Safeguard
Data privacy & cybersecurity	Breach of confidentiality, loss of trust	Robust encryption, DPDP compliance, ethical governance
Digital divide	Inequitable access, social injustice	Universal digital literacy, affordable access policies
Technology fatigue	Reduced empathy, human disconnection	Human-centered design, staff training, workflow redesign
Algorithmic bias	Diagnostic disparity, unfair outcomes	Bias audits, diverse data training, explainable AI

Digital health transformation must thus operate within a triangular equilibrium of *efficiency, ethics, and empathy*. Only by respecting this balance can healthcare systems ensure that technological progress translates into safe, equitable, and high-quality care for all.

20. Recommendations



A. For Healthcare Providers

1. Enhance Tangibles and User Experience

➤ Upgrade digital platforms for intuitive navigation, faster load times, and mobile-friendly interfaces: Patients expect seamless digital interactions similar to other service sectors (like banking or e-commerce). Complicated interfaces or slow apps can lead to frustration, reducing satisfaction. Improving user experience (UX) ensures patients can access services efficiently.

Example: Hospitals could redesign apps to allow booking appointments, checking lab reports, and paying bills in fewer steps.

➤ Include features such as AI-based chat support, automated reminders, and easy access to medical records: AI chatbots can handle routine queries (e.g., “What is my next appointment?”), reducing waiting time. Automated reminders for medications or appointments enhance adherence and improve the overall service perception. Easy access to medical records empowers patients, fostering transparency and trust.

2. Strengthen Assurance and Reliability

➤ Implement robust data security measures, encryption, and privacy policies: Patient trust is closely linked to the security of their personal health information.

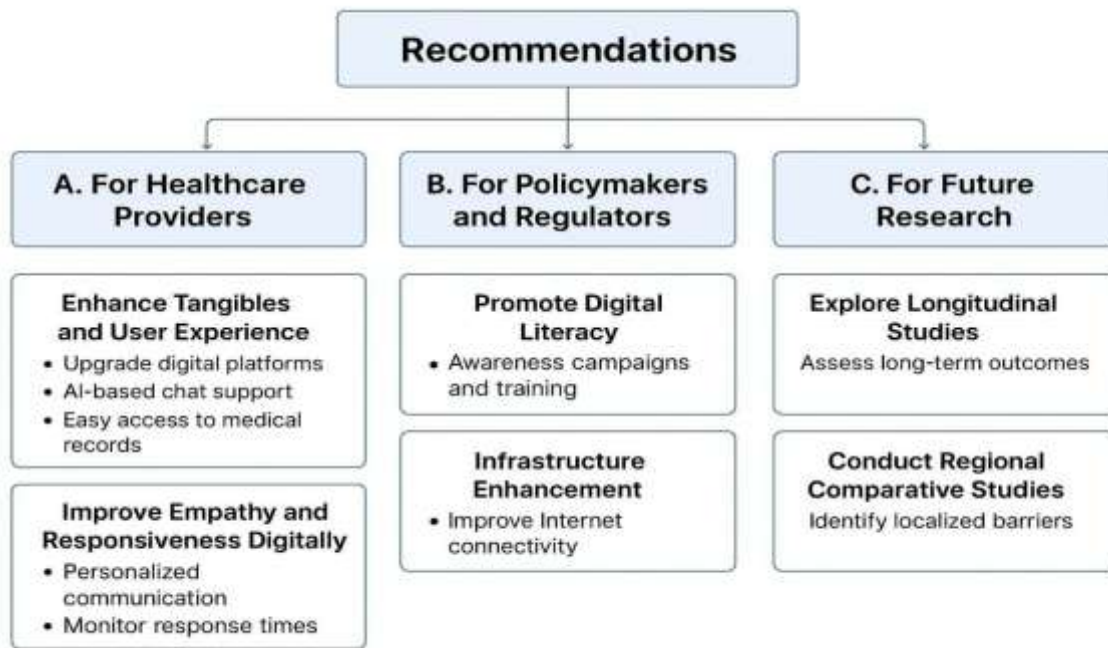
Cybersecurity breaches can severely damage reputation and patient satisfaction. Action: Use multi-factor authentication, encrypted data storage, and regular audits to ensure data safety.

➤ Ensure accuracy of lab reports, prescriptions, and teleconsultation services: Errors in digital healthcare services can have serious consequences. Verification mechanisms, cross-checking with healthcare professionals, and AI-assisted error detection systems can enhance reliability. Accurate services build confidence and reduce anxiety for patients.

3. Improve Empathy and Responsiveness Digitally

➤ Train staff to provide personalized communication through digital channels: While technology facilitates convenience, empathy remains a key factor in patient satisfaction. Personalized messages, follow-ups, or health guidance tailored to individual needs help patients feel valued.

➤ Monitor response times to patient queries and concerns on apps or telehealth platforms: Quick responses signal that healthcare providers are attentive, reducing patient stress and improving the perception of service quality. Analytics tools can track response times and identify bottlenecks for continuous improvement.



B. For Policymakers and Regulators

1. Promote Digital Literacy

○ Conduct awareness campaigns and training programs for patients, especially in semi-urban and rural areas. Many patients face challenges in using digital health tools due to limited knowledge of technology. Government-led initiatives or partnerships with NGOs can bridge this gap, ensuring wider adoption. Workshops, video tutorials, or community help centers can improve digital competency.

2. Infrastructure Enhancement

○ Improve internet connectivity and access to smartphones in underserved areas.

Even the best digital solutions fail without the basic infrastructure. Reliable internet and affordable smartphone access are prerequisites for equitable digital healthcare. Action: Public-private partnerships can help establish mobile health units, Wi-Fi-enabled community centers, and affordable device schemes.

3. Standardize Digital Health Regulations

○ Enforce guidelines on data protection, interoperability, and telemedicine quality standards.

Standardization ensures that all digital health providers maintain a minimum level of service quality and safety. This includes:

- Clear protocols for patient data storage and sharing
 - Interoperable systems that allow seamless information exchange between hospitals, labs, and pharmacies
 - Guidelines for teleconsultations to maintain consistent care standards
- Regulatory clarity reduces ambiguity, protects patients, and encourages innovation.



C. For Future Research

1. Explore longitudinal studies to assess the impact of digital health adoption on long-term patient outcomes. Most current studies measure satisfaction or quality perception at a single point in time. Longitudinal research can reveal how digital health affects chronic disease management, treatment adherence, and overall health over months or years.
2. Conduct regional comparative studies within India to identify localized barriers and solutions. India's healthcare landscape is diverse, with differences in infrastructure, literacy, and cultural factors across regions. Comparative studies help policymakers and providers tailor interventions for specific regions, enhancing effectiveness and patient satisfaction.
3. Investigate emerging technologies (AI, IoT, wearable devices) and their impact on patient satisfaction and service quality. Digital health is rapidly evolving. AI-powered diagnostics, remote monitoring devices, and wearable health trackers can transform patient care. Researching their effectiveness, patient acceptance, and integration challenges will guide future technology adoption strategies.

References

1. Malik, P.K., & Bansal, S. (2025). *Perceptions and Beliefs of Healthcare Professionals towards Digital Healthcare Tools in Delhi-NCR, India: A Qualitative Interview Study*. *Journal of Clinical and Public Health Research*. EBSCOhost link
2. Goswami, S., Tamanna, M.S., & Saini, S. (2025). *Understanding Patient and Doctor Perception towards Electronic Consultation: A Qualitative Analysis from a Tertiary Care Institute of Haryana, India*. *International Journal of Public Health*. ResearchGate PDF
3. Maru, M.P. (2025). *A Systemic Review on Revolutionizing Surgery with AI and Robotics: Contemporary Innovations in Gujarat Hospitals*. *Multidisciplinary Research Area in Arts, Science & Commerce*.
4. World Health Organization. (2021). *Global Strategy on Digital Health 2020–2025*. Geneva: WHO.
5. Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality*. *Journal of Retailing*, 64(1), 12–40.
6. Ministry of Health and Family Welfare (2022). *Ayushman Bharat Digital Mission Guidelines*. Government of India.
7. Buntin, M.B., Burke, M.F., Hoaglin, M.C., & Blumenthal, D. (2011). *The Benefits of Health Information Technology: A Review of the Recent Literature Shows Predominantly Positive Results*. *Health Affairs*, 30(3), 464–471.
8. Agarwal, R., Gao, G., DesRoches, C., & Jha, A.K. (2010). *The Digital Transformation of Healthcare: Current Status and the Road Ahead*. *Information Systems Research*, 21(4), 796–809.
9. Donabedian, A. (1988). *The Quality of Care: How Can It Be Assessed?* *JAMA*, 260(12), 1743–1748.
10. Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality*. *Journal of Retailing*, 64(1), 12–40.
11. World Health Organization (2021). *Global Patient Safety Action Plan 2021–2030: Towards Eliminating Avoidable Harm in Health Care*. Geneva: WHO.
12. Buntin, M.B., Burke, M.F., Hoaglin, M.C., & Blumenthal, D. (2011). *The Benefits of Health Information Technology: A Review of the Recent Literature*. *Health Affairs*, 30(3), 464–471.
13. Agarwal, R., Gao, G., DesRoches, C., & Jha, A.K. (2010). *The Digital Transformation of Healthcare: Current Status and the Road Ahead*. *Information Systems Research*, 21(4), 796–809.
14. Vincent, C., & Amalberti, R. (2016). *Safer Healthcare: Strategies for the Real World*. Springer.
15. World Health Organization. (2021). *Global Patient Safety Action Plan 2021–2030: Towards Eliminating Avoidable Harm in Health Care*. Geneva: WHO.
16. IBM Security. (2023). *Cost of a Data Breach Report*. IBM Corporation.
17. Malik, P. K., & Bansal, S. (2025). *Perceptions and Beliefs of Healthcare Professionals Towards Digital Healthcare Tools in Delhi-NCR, India: A Qualitative Interview Study*. *Journal of Clinical & Public Health Research*.



18. Vincent, C., & Amalberti, R. (2016). *Safer Healthcare: Strategies for the Real World*. Springer.
19. Obermeyer, Z., Powers, B., Vogeli, C., & Mullainathan, S. (2019). *Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations*. *Science*, 366(6464), 447–453.
20. Donabedian, A. (1988). *The Quality of Care: How Can It Be Assessed?* *JAMA*, 260(12), 1743–1748.
21. Adler-Milstein, J., et al. (2017). *Interoperability Progress and Remaining Data Exchange Barriers in Hospitals: 2015–2017*. *Health Affairs*, 36(8), 1410–1417.
22. Rajkomar, A., et al. (2018). *Scalable and Accurate Deep Learning for Electronic Health Records*. *NPJ Digital Medicine*, 1(1), 18.
23. Jones, R., Radhakrishnan, A., & Singh, H. (2021). *Automation and Safety in Medication Management: A Systematic Review*. *BMJ Quality & Safety*, 30(9), 732–745.
24. Zhou, Y., et al. (2022). *Patient Access to Online Health Records and Its Impact on Safety and Engagement*. *Journal of the American Medical Informatics Association*, 29(2), 278–290.
25. Howell, A., et al. (2020). *Digitally Enabled Safety Surveillance Systems in Hospitals: Outcomes and Lessons Learned*. *Health Informatics Journal*, 26(3), 1768–1781.
26. World Health Organization. (2018). *National Patient Safety Implementation Framework (2018–2025)*, India.
27. Shanafelt, T. D., et al. (2021). *Physician Burnout and the Electronic Health Record: Time for Recalibration*. *Mayo Clinic Proceedings*, 96(5), 1264–1276.
28. Obermeyer, Z., Powers, B., Vogeli, C., & Mullainathan, S. (2019). *Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations*. *Science*, 366(6464), 447–453.
29. National Sample Survey Office (NSSO). (2021). *Household Social Consumption on Education and Digital Access in India*. Ministry of Statistics and Programme Implementation, Government of India.
30. Malik, P. K., & Bansal, S. (2025). *Perceptions and Beliefs of Healthcare Professionals Towards Digital Healthcare Tools in Delhi-NCR, India: A Qualitative Study*. *Journal of Clinical & Public Health Research*
31. Ministry of Health and Family Welfare (MoHFW). (2025). *eSanjeevani Telemedicine Platform Annual Report 2025*. Government of India.
32. NITI Aayog. (2021). *Health System for a New India: Building Blocks – Potential Pathways to Reform*. Government of India.
33. National Accreditation Board for Hospitals & Healthcare Providers (NABH). (2023). *Accreditation Status Report*. Quality Council of India.
34. National Sample Survey Office (NSSO). (2021). *Household Social Consumption on Education and Digital Access in India*. Ministry of Statistics and Programme Implementation.
35. Malik, P. K., & Bansal, S. (2025). *Perceptions and Beliefs of Healthcare Professionals Towards Digital Healthcare Tools in Delhi-NCR, India: A Qualitative Study*. *Journal of Clinical & Public Health Research*.
36. World Health Organization. (2018). *National Patient Safety Implementation Framework (2018–2025)*, India.
37. Ministry of Health and Family Welfare (MoHFW). (2023). *National Health Profile 2023*. Government of India.
38. Buntin, M. B., Burke, M. F., Hoaglin, M. C., & Blumenthal, D. (2011). *The Benefits of Health Information Technology: A Review of the Recent Literature Shows Predominantly Positive Results*. *Health Affairs*, 30(3), 464–471.
39. Vincent, C., & Amalberti, R. (2016). *Safer Healthcare: Strategies for the Real World*. Springer.
40. Malik, P. K., & Bansal, S. (2025). *Perceptions and Beliefs of Healthcare Professionals Towards Digital Healthcare Tools in Delhi-NCR, India: A Qualitative Study*. *Journal of Clinical & Public Health Research*.
41. Ministry of Health and Family Welfare (MoHFW). (2023). *National Health Policy 2017 Implementation Report*. Government of India.
42. World Health Organization. (2021). *Global Patient Safety Action Plan 2021–2030: Towards Eliminating Avoidable Harm in Health Care*. Geneva: WHO.