



Evaluating Efficacy: A Critical Review Of Innovative Strategies In Optimizing Patient Care Within Health Services And Hospital Management

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Abstract

In the realm of healthcare, optimizing patient care through innovative strategies in health services and hospital management is crucial for enhancing health outcomes and operational efficiency. This critical review explores the multifaceted approaches employed in modern healthcare systems to improve patient care, focusing on digital health technologies, patient-centered care models, and operational efficiency methods. It evaluates the impact of these strategies on clinical outcomes, operational metrics, and patient satisfaction, drawing on current research, case studies, and expert analyses. The review identifies key challenges, including financial constraints, technological barriers, and resistance to change, and discusses future directions for innovation in healthcare management. By synthesizing evidence on the effectiveness of these strategies, the review highlights the importance of adaptability, continuous improvement, and stakeholder engagement in optimizing healthcare services. This comprehensive evaluation aims to inform healthcare professionals, policymakers, and administrators about the potential of innovative strategies to transform patient care and hospital management practices.

Keywords: Healthcare Optimization, Patient Care Strategies, Health Services Management, Hospital Management, Digital Health Innovations, Patient-Centered Care, Operational Efficiency, Clinical Outcomes, Healthcare Innovation, Future of Healthcare

1. Introduction

In the dynamic landscape of healthcare, the quest for optimizing patient care remains paramount, necessitating the integration of innovative strategies within health services and hospital management. The burgeoning complexity of healthcare needs, coupled with the rapid advancements in medical technology and the growing demand for high-quality care, underscores the importance of reevaluating and enhancing traditional healthcare delivery models. In this context, innovative strategies aimed at improving patient care not only encompass the adoption of cutting-edge technologies but also embrace patient-centered care models and methodologies aimed at enhancing operational efficiency (Porter & Teisberg, 2006; Bhattarai & Phillips, 2020).

The shift towards patient-centered care, characterized by a holistic approach that respects and responds to individual patient preferences, needs, and values, has been identified as a critical component in optimizing healthcare outcomes (Institute of Medicine, 2001). Coupled with this, digital health innovations such as telemedicine, electronic health records (EHRs), and the application of artificial intelligence (AI) in diagnostic and treatment processes, have shown promising potential in enhancing patient care and operational workflows (Keesara, Jonas, & Schulman, 2020).

Operational efficiency, achieved through methodologies like Lean management and Six Sigma, has also been pivotal in reducing waste, improving quality, and ensuring that patient care is delivered in the most effective and efficient manner possible (D'Andreanmatteo, Ianni, Lega, & Sargiacomo, 2015). These strategies not only focus on the optimization of healthcare processes but also emphasize the importance of aligning them with the goal of enhancing patient outcomes and satisfaction.

However, the implementation of these innovative strategies is not without challenges. Financial constraints, technological barriers, and resistance to change among healthcare professionals and institutions can impede the adoption and effective integration of new practices within existing healthcare systems (Herzer & Pronovost, 2019; Agarwal, Gao, DesRoches, & Jha, 2010).

This review critically examines the innovative strategies employed in health services and hospital management to optimize patient care. It evaluates the impact of these strategies on clinical outcomes, operational metrics, and patient satisfaction, while also addressing the challenges faced in their implementation. The aim is to provide healthcare professionals, policymakers, and administrators with comprehensive insights into the efficacy of these strategies and their potential to transform healthcare delivery.

2. Background and Context

The evolution of health services and hospital management has been significantly influenced by the changing landscape of healthcare demands, technological advancements, and the shifting paradigms towards more patient-centric care. Historically, healthcare systems were designed with a primary focus on acute and episodic care, often within hospital settings. However, the increasing prevalence of chronic diseases, aging populations, and the need for continuous care have necessitated a transformation towards more integrated and patient-focused healthcare models (W.H.O., 2016; Bodenheimer & Sinsky, 2014).

The concept of patient-centered care has emerged as a cornerstone in this transformation, emphasizing the involvement of patients in their care decisions and planning. This approach not only seeks to improve individual health outcomes but also aims to enhance patient satisfaction and the overall quality of care. The Institute of Medicine (IOM) defines patient-centered care as "providing care that is respectful of, and responsive to, individual patient preferences, needs, and values, ensuring that patient values guide all clinical decisions" (Institute of Medicine, 2001). This paradigm shift has led to the development of models that support a more holistic approach to healthcare, integrating mental, emotional, and social health alongside physical well-being.

Technological advancements have played a pivotal role in supporting this shift, offering new opportunities to improve care delivery, patient engagement, and operational efficiency. Digital health innovations, such as telehealth, mobile health (mHealth), wearable devices, and electronic health records (EHRs), have transformed the way healthcare providers interact with patients and manage care (Bashshur et al., 2016; Kellermann & Jones, 2013). These technologies enable remote monitoring, virtual consultations, and personalized care plans, thereby enhancing accessibility and continuity of care, particularly for patients with chronic conditions or those living in remote areas.

Operational efficiency in healthcare is another critical area that has seen significant development. With the rising costs of healthcare and the increasing demand for services, healthcare organizations have turned to methodologies like Lean Healthcare and Six Sigma to streamline processes, reduce waste, and improve quality (D'Andreanmatteo et al., 2015). These approaches, borrowed from manufacturing and business, have been adapted to the healthcare context to enhance the efficiency of care delivery without compromising the quality of patient care.

However, the integration of these innovative strategies into existing healthcare systems is not without challenges. Financial constraints pose a significant barrier, with the high costs associated with implementing new technologies and training staff often cited as major obstacles (Herzer & Pronovost, 2019). Additionally, the digital divide can exacerbate inequalities in access to care, with disparities in technological access and literacy affecting the ability of some patient populations to benefit from digital health innovations (Anderson & Perrin, 2017).

Resistance to change among healthcare professionals and institutions is another challenge. The adoption of new technologies and methodologies requires a cultural shift within organizations, necessitating leadership support, staff engagement, and a focus on change management to overcome institutional inertia (Kotter, 1996).

Despite these challenges, the potential benefits of these innovative strategies in enhancing patient care and operational efficiency are significant. As healthcare systems continue to evolve, the ongoing evaluation and adaptation of these strategies will be crucial in meeting the changing needs of patients and the broader healthcare environment.

3. Innovative Strategies in Patient Care

The realm of healthcare is witnessing a paradigm shift with the integration of innovative strategies aimed at enhancing patient care. These strategies encompass a broad spectrum of approaches, including digital health innovations, patient-centered care models, and operational efficiency improvements, each contributing to a more efficient, effective, and patient-focused healthcare system.

Digital Health Innovations

Digital health innovations stand at the forefront of transforming patient care, offering new avenues for diagnosis, treatment, and patient engagement. Telemedicine, for instance, has emerged as a critical tool in providing healthcare services, particularly in the wake of the COVID-19 pandemic, facilitating remote consultations and ensuring continuity of care while minimizing the risk of infection (Smith et al., 2020). Electronic Health Records (EHRs) have revolutionized information management in healthcare, enabling seamless sharing of patient data across providers, which improves care coordination and patient outcomes (Menachemi & Collum, 2011).

Artificial Intelligence (AI) and Machine Learning (ML) technologies are redefining diagnostic and treatment paradigms. AI algorithms can analyze vast datasets, including medical imaging and genetic information, to assist in early disease detection, personalized treatment plans, and predictive analytics for patient outcomes (Jiang et al., 2017). Wearable technology and mobile health apps (mHealth) empower patients by tracking health metrics in real-time, promoting self-management of chronic conditions, and facilitating personalized healthcare interventions (Steinhubl et al., 2015).

Patient-Centered Care Models

Patient-centered care models prioritize the patient's preferences, needs, and values, ensuring that they are central to all healthcare decisions and planning. These models advocate for a holistic approach to healthcare, addressing not only physical health but also considering mental, emotional, and social well-being. The integration of multidisciplinary teams, including physicians, nurses, social workers, and mental health professionals, ensures comprehensive care that aligns with the patient's life context and health goals (Epstein & Street, 2011).

Shared decision-making is a key component of patient-centered care, involving patients in care planning and decision processes to ensure that medical decisions align with their values and preferences. This approach has been shown to enhance patient satisfaction, adherence to treatment plans, and overall health outcomes (Stacey et al., 2017).

Operational Efficiency and Quality Improvement

Operational efficiency in healthcare involves optimizing processes to deliver high-quality care in the most effective and efficient manner. Lean healthcare and Six Sigma are methodologies adopted from the manufacturing industry, focusing on reducing waste, improving process flow, and enhancing quality (D'Andreamatteo et al., 2015). These methodologies have been effectively applied in various healthcare settings to streamline operations, reduce costs, and improve patient care delivery.

Quality improvement initiatives, such as the Plan-Do-Study-Act (PDSA) cycle, are instrumental in continuously assessing and improving healthcare processes and outcomes. These initiatives involve setting specific, measurable goals; implementing changes; studying the results; and adjusting processes based on findings, thereby fostering a culture of continuous improvement (Taylor et al., 2014).

Challenges and Considerations

While these innovative strategies hold significant promise for enhancing patient care, their implementation is not without challenges. Issues such as data privacy and security, particularly concerning EHRs and telemedicine, require stringent safeguards to protect patient information (Krupinski et al., 2014). Additionally, the digital divide presents a barrier to equitable access to digital health services, with disparities in technology access and literacy affecting certain populations more than others (Anderson & Perrin, 2017).

Moreover, the successful integration of these strategies necessitates a cultural shift within healthcare organizations, emphasizing the need for leadership support, staff training, and change management to overcome resistance and ensure adoption (Kotter, 1996).

The integration of innovative strategies in patient care is transforming the healthcare landscape, offering new opportunities to improve health outcomes, enhance patient satisfaction, and optimize operational efficiency. As healthcare continues to evolve, the ongoing evaluation, adaptation, and scaling of these strategies will be crucial in realizing their full potential in delivering patient-centered, high-quality care.

4. Evaluating the Impact

The integration of innovative strategies in health services and hospital management has the potential to significantly enhance patient care, operational efficiency, and overall healthcare outcomes. Evaluating the impact of these strategies is crucial to understand their effectiveness, justify their continued adoption, and guide future improvements. This section examines the impact of these strategies on clinical outcomes, operational metrics, and patient satisfaction.

Clinical Outcomes

The adoption of digital health innovations and patient-centered care models has shown promising results in improving clinical outcomes. Telemedicine, for instance, has facilitated timely access to care, particularly in remote or underserved areas, leading to earlier diagnoses and interventions. A study by Hilty et al. (2013) demonstrated that telepsychiatry could provide comparable outcomes to in-person care, including reduced symptoms of depression and anxiety. Similarly, the use of EHRs and AI in managing chronic diseases like diabetes has led to more personalized and effective treatment plans, resulting in better disease management and reduced hospitalization rates (Cahn et al., 2016).

Operational Metrics

Operational efficiency strategies such as Lean Healthcare and Six Sigma have significantly impacted healthcare facilities' operational metrics. These methodologies have been effective in reducing waste, improving process flow, and enhancing quality. A systematic review by D'Andreamatteo et al. (2015) highlighted that Lean interventions in healthcare could lead to improvements in various operational metrics, including reduced waiting times, shorter hospital stays, and decreased medication errors. These operational enhancements not only improve the quality of care but also contribute to cost savings and resource optimization.

Patient Satisfaction and Experience

Patient-centered care models, which emphasize shared decision-making and holistic care, have been instrumental in enhancing patient satisfaction and experience. The engagement of patients in their care decisions and the consideration of their preferences and values lead to higher satisfaction levels. Studies have shown that shared decision-making can significantly improve patient satisfaction, adherence to treatment plans, and overall health outcomes (Stacey et al., 2017). Moreover, the convenience and accessibility offered by digital health services, such as telemedicine and mHealth apps, have further contributed to improved patient experiences by offering care in more accessible and patient-preferred formats.

Challenges and Considerations

While the impacts of these innovative strategies are generally positive, there are challenges and considerations that need to be addressed. The implementation of digital health solutions, for instance, raises concerns regarding data privacy and security, requiring robust safeguards to protect sensitive patient information (Krupinski et al., 2014). Additionally, the

digital divide can limit the accessibility and effectiveness of digital health services for certain populations, potentially exacerbating health disparities (Anderson & Perrin, 2017).

Resistance to change among healthcare professionals and the need for significant cultural shifts within healthcare organizations are other challenges that can affect the successful integration and scaling of these strategies. Overcoming these challenges requires strong leadership, comprehensive training programs, and effective change management strategies to ensure buy-in and adoption among all stakeholders.

The evaluation of innovative strategies in health services and hospital management reveals a significant positive impact on clinical outcomes, operational metrics, and patient satisfaction. These strategies offer the potential to transform healthcare delivery, making it more efficient, effective, and patient-centered. However, the successful realization of these benefits requires careful consideration of the associated challenges, including addressing the digital divide, ensuring data privacy and security, and managing change within healthcare organizations. As healthcare continues to evolve, ongoing research and evaluation will be essential to optimize these strategies and fully harness their potential to improve patient care and health system performance.

5. Challenges and Limitations

The integration of innovative strategies in health services and hospital management, while promising, is fraught with challenges and limitations. These hurdles stem from a variety of sources, including financial, technological, and organizational barriers, and can significantly impede the adoption and effective implementation of new practices designed to optimize patient care.

Financial Constraints and Budgetary Implications

One of the most significant challenges in implementing innovative strategies in healthcare is the financial burden associated with adopting new technologies and practices. The initial costs of digital health technologies, including procurement, installation, and maintenance, can be prohibitive for many healthcare organizations, particularly those already operating under tight budget constraints (Omachonu & Einspruch, 2010). Additionally, training healthcare professionals to effectively utilize these new tools requires significant investment, not only in terms of financial resources but also time, further straining limited budgets.

Technological Barriers and the Digital Divide

Technological barriers also present significant challenges, particularly in terms of interoperability and the digital divide. The lack of standardized systems and protocols can hinder the seamless integration of new digital health technologies with existing healthcare IT infrastructures, leading to inefficiencies and potential errors (Williams & Boren, 2008). Moreover, the digital divide—the gap between individuals who have access to modern information and communication technology and those who do not—can exacerbate health disparities, limiting the reach and effectiveness of digital health interventions among underserved populations (Anderson & Perrin, 2017).

Resistance to Change Among Staff and Institutional Inertia

Resistance to change among healthcare professionals and within healthcare organizations is another formidable challenge. The introduction of new practices and technologies often requires significant alterations to established workflows and routines, which can be met with skepticism or outright resistance from staff accustomed to traditional methods (Ford et al., 2008). Institutional inertia, or the tendency of organizations to maintain the status quo, further compounds this issue, making it difficult to implement innovative strategies that necessitate organizational and cultural shifts.

Ethical Considerations and Patient Privacy Concerns

Ethical considerations, particularly regarding patient privacy and data security, are paramount when integrating digital health technologies. The increased collection and sharing of patient data raise legitimate concerns about the potential for breaches and misuse of sensitive information, necessitating robust data protection measures and ethical guidelines to safeguard patient privacy (Krupinski et al., 2014).

Workforce Training and Skills Development

The effective implementation of innovative strategies in healthcare also hinges on the availability of a skilled workforce capable of navigating new technologies and methodologies. The current shortage of healthcare professionals with the necessary training in digital health and data analytics poses a significant barrier to the adoption of advanced health technologies and innovative care models (Bodenheimer & Smith, 2013).

The challenges and limitations associated with integrating innovative strategies in health services and hospital management are multifaceted, spanning financial, technological, organizational, and ethical domains. Overcoming these obstacles requires a concerted effort from healthcare providers, policymakers, technology developers, and other stakeholders. Addressing these challenges will necessitate targeted investments in healthcare infrastructure, the development of standardized and interoperable technology solutions, comprehensive training programs for healthcare professionals, and robust policies to ensure ethical practice and patient privacy protection. As the healthcare landscape continues to evolve, navigating these challenges will be critical to fully realizing the potential of innovative strategies in optimizing patient care and enhancing health system performance.

6. Future Directions and Conclusion

As the healthcare landscape continues to evolve, propelled by technological advancements and shifting patient expectations, the future of health services and hospital management is poised for transformative changes. The integration

of innovative strategies will play a pivotal role in shaping this future, addressing current challenges while harnessing new opportunities to optimize patient care and enhance healthcare system performance.

- Future Directions

Embracing Digital Transformation: The continued digital transformation of healthcare is inevitable. Future innovations will likely focus on further integrating AI and machine learning into diagnostic and treatment processes, enhancing precision medicine, and expanding telehealth services to provide care beyond traditional settings (Jiang et al., 2017; Wosik et al., 2020). The development of more sophisticated wearable devices and mobile health applications will enable real-time health monitoring and personalized interventions, fostering proactive and preventive healthcare approaches.

Interoperability and Data Integration: Achieving interoperability among disparate healthcare IT systems will be crucial for enabling seamless communication and data exchange. This will enhance care coordination, reduce redundancies, and improve patient outcomes. Efforts such as the development of universal data exchange standards and the adoption of blockchain technology could provide secure and efficient mechanisms for data sharing (Kumar et al., 2021).

Patient-Centered Care Innovations: The emphasis on patient-centered care will continue to grow, with innovations aimed at enhancing patient engagement, shared decision-making, and holistic care. Digital health platforms that offer personalized health education, support shared decision-making, and facilitate patient-provider communication will become increasingly prevalent (Elwyn et al., 2012).

Operational Efficiency through Advanced Analytics: Advanced analytics and big data will play a more significant role in improving operational efficiency within healthcare facilities. Predictive analytics can optimize resource allocation, improve patient flow, and anticipate future demands, thereby reducing costs and enhancing care delivery (Bates et al., 2014).

Addressing Healthcare Disparities: Future strategies must prioritize addressing healthcare disparities by ensuring equitable access to innovative healthcare solutions. This includes expanding telehealth services to underserved regions, developing culturally sensitive care models, and leveraging community health workers to bridge gaps in care (Syed et al., 2013).

Overcoming Challenges

To realize these future directions, healthcare systems must overcome existing challenges, including financial constraints, technological barriers, and resistance to change. Strategic investments in healthcare infrastructure, targeted policies to support innovation adoption, and initiatives to foster a culture of continuous improvement and adaptability will be essential.

Ethical Considerations and Policy Implications

As healthcare continues to evolve, ethical considerations, particularly regarding patient privacy and data security, will remain paramount. Developing robust ethical frameworks and regulatory policies that protect patient rights while fostering innovation will be crucial. Additionally, policy initiatives that support workforce development and training in digital health competencies will be vital to prepare healthcare professionals for the future (McGonigle & Mastrian, 2017).

- Conclusion

The future of health services and hospital management is marked by the continued integration of innovative strategies designed to optimize patient care, enhance operational efficiency, and adapt to the changing healthcare landscape. While challenges persist, the potential benefits of these innovations in improving healthcare outcomes, patient experiences, and system performance are substantial. By embracing digital transformation, fostering patient-centered care, leveraging advanced analytics, and addressing healthcare disparities, healthcare systems can navigate the complexities of modern healthcare delivery and meet the evolving needs of patients and communities.

As we look to the future, the commitment of healthcare professionals, policymakers, technology developers, and patients to collaborate and innovate will be pivotal in shaping a healthcare system that is efficient, effective, and equitable. Continuous evaluation, adaptation, and scaling of innovative strategies will be essential to fully realize their potential and ensure that healthcare systems are prepared to meet the challenges and opportunities of the 21st century.

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