(REVIEW ARTICLE)

Check for updates

General healthcare policy and its influence on management practices: A review

Toritsemogba Tosanbami Omaghomi [1], Oluwafunmi Adijat Elufioye [2], Chinyere Onwumere [3], Jeremiah Olawumi Arowoogun [4], Ifeoma Pamela Odilibe [5, *] and Oluwaseyi Rita Owolabi [6]

[1] Independent Researcher, Chapel Hill, NC, USA.
[2] Independent Researcher, Lagos, Nigeria.
[3] Abia State University Teaching Hospital, Aba. (ABSUTH), Nigeria.
[4] Bharat Serums And Vaccines Limited, Lagos, Nigeria.
[5] Independent Researcher, Houston, Texas, USA.
[6] Independent Researcher Indianapolis Indiana, USA.

Abstract

This review paper explores the intricate relationship between healthcare policy and management practices within the healthcare sector, highlighting how policies shape management strategies and impact the operational realities of healthcare organizations. It delves into the challenges of aligning management practices with evolving healthcare policies and the vital role of healthcare managers in policy advocacy and implementation. Through a comprehensive analysis, the paper discusses emerging trends in healthcare policy, including the shift towards value-based care, digital health expansion, and the emphasis on health equity and their implications for management practices. Recommendations for healthcare managers and policy-makers are provided, emphasizing the importance of strategic alignment, innovation, and stakeholder engagement in enhancing healthcare delivery and outcomes. This paper offers insights into navigating the dynamic healthcare environment, leveraging policy changes as opportunities for improvement, and ensuring the effective implementation of healthcare policies.

Keywords: Healthcare policy; Management practices; Policy implementation; Healthcare Innovation; Value-Based Care; Digital Health Technologies

1. Introduction

Healthcare policy encompasses the plans, actions, and decisions undertaken to achieve specific healthcare goals within a society. These policies can span a wide range of issues, including public health, access to care, quality of care, health equity, and the regulation of the healthcare industry (Nutbeam & Muscat, 2021; Organization, 2021). The significance of healthcare policy lies in its capacity to influence the health outcomes of individuals and populations and the efficiency, quality, and cost-effectiveness of healthcare systems. In essence, healthcare policies serve as a framework within which healthcare services are delivered, ensuring that these services meet the population's health needs in an equitable and effective manner (Hinde, Bojke, & Coventry, 2021; Mitchell, 2021; Zaree et al., 2023).

These policies fundamentally influence management practices in the healthcare sector. These practices encompass the strategies, techniques, and processes employed by healthcare managers to ensure that healthcare organizations—such as hospitals, clinics, and public health institutions—operate efficiently and effectively. This includes human resource management, financial management, healthcare operations, patient care management, and compliance with healthcare laws and regulations (Mousa & Othman, 2020; Wager, Lee, & Glaser, 2021). The alignment of management practices

---

* Corresponding author: Ifeoma Pamela Odilibe

with healthcare policy is crucial, as it directly impacts the quality of care, patient satisfaction, and the overall performance of healthcare institutions (Liebler & McConnell, 2020).

This paper aims to examine the dynamic relationship between general healthcare policy and management practices within the healthcare sector. By exploring how policy shapes management strategies and practices, this paper seeks to provide insights into healthcare managers' challenges and opportunities in adapting to policy changes. Furthermore, it aims to highlight the importance of effective management in implementing healthcare policies, ensuring that these policies achieve their intended outcomes regarding improved health services and patient care.

2. Theoretical framework

The theoretical framework of this review paper serves as the foundation for understanding the intricate relationship between healthcare policies and management practices. It draws upon various theoretical perspectives and management theories to provide a comprehensive backdrop against which the impacts of healthcare policies on management practices can be analyzed. This section is divided into two main parts: the theoretical underpinnings of healthcare policies and the management theories relevant to healthcare settings.

2.1. Theoretical Perspectives Underpinning Healthcare Policies

Healthcare policies are shaped by many theoretical perspectives that influence their formulation, implementation, and evaluation. Among these, the following perspectives are pivotal:

- Public Health Theories: These theories emphasize the role of healthcare policies in preventing disease and promoting health at the population level. They advocate for interventions that address social determinants of health, environmental factors, and health behaviours (Junior, Ribeiro, & Viana, 2021; Ullah, Khan, Tahir, Ahmed, & Harapan, 2021).
- Health Economics: Economic theories provide insights into how scarce resources are allocated in healthcare. They address issues of efficiency, equity, and the distribution of health services, guiding policies on healthcare financing, pricing, and insurance.
- Political Economy: This perspective examines the interplay between economic and political forces in shaping healthcare policies. It highlights how power dynamics, political ideologies, and interest groups influence policy decisions.
- Ethical Theories: Ethical principles such as justice, autonomy, and beneficence are central to healthcare policy. These theories guide decisions on issues like access to care, patient rights, and ethical distribution of resources.
- Systems Theory: Healthcare is viewed as a complex system, where policies are seen as interventions that can lead to system-wide changes. This perspective emphasizes the interconnectedness of various components within the healthcare system and the need for holistic approaches to policy-making (McGill et al., 2021; Petrie & Peters, 2020).

2.2. Management Theories Relevant to Healthcare Settings

Management practices in healthcare draw upon a rich array of theories that inform leadership, organizational behaviour, and operational efficiency. Key theories include:

- Scientific Management: Originating from the work of Frederick Taylor, this theory focuses on optimizing efficiency through systematic training, task allocation, and performance measurement. In healthcare, it underlies efforts to streamline operations and improve clinical workflows (Taylor, 2023).
- Human Relations Theory: Emphasizing the importance of human factors in organizational success, this theory highlights the role of employee satisfaction, motivation, and team dynamics in enhancing productivity and quality of care.
- Contingency Theory: This theory posits that there is no best way to manage an organization; effective management depends on matching management practices to an organization's specific circumstances. It underscores the need for adaptable management styles that can respond to the complexities of healthcare delivery (Smithson, 2022).
- Transformational Leadership: Particularly relevant in the rapidly evolving healthcare sector, this theory focuses on leaders who inspire and motivate their teams to achieve exceptional outcomes, often by emphasizing vision, communication, and employee empowerment (Akdere & Egan, 2020; Alshahrani, Al-Jayyousi, Aldhmour, & Alderaan, 2024).

- Lean Management: Adapted from manufacturing, lean principles aim to reduce waste and improve efficiency by focusing on value from the patient's perspective. This theory has gained traction in healthcare as organizations seek to streamline processes and enhance patient care.
- Quality Improvement Theories: These include models like Total Quality Management (TQM) and the Plan-Do-Study-Act (PDSA) cycle, which focus on continuous quality and performance improvement in healthcare settings (Chen, VanderLaan, & Heher, 2021; Ente & Ukpe, 2022).

3. Healthcare Policy: An Overview

Healthcare policy constitutes a critical framework within which the objectives of public health and medical care services are defined, pursued, and achieved. It encompasses a broad range of directives, laws, regulations, and actions designed to achieve specific healthcare goals within a society. These policies are pivotal in shaping the overall health system, influencing how healthcare is delivered, financed, and accessed by the population. Understanding the nature, objectives, and components of healthcare policy, as well as the roles of various stakeholders in its formulation and implementation, is essential for grasping the complex dynamics of healthcare systems globally.

3.1. Definition and Types of Healthcare Policies

Healthcare policy refers to decisions, plans, and actions undertaken to achieve specific healthcare goals within a society. These can broadly be categorized into several types, each targeting different aspects of the healthcare system:

- Public Health Policies: Focus on improving the overall health of populations through prevention, promotion, and protection strategies. Examples include vaccination programs, anti-smoking campaigns, and environmental health regulations (Cameron et al., 2022).
- Healthcare Financing Policies: Concerned with how healthcare services are paid for, including health insurance schemes, government funding, and out-of-pocket payments. These policies aim to ensure affordability and access to healthcare services (Harish et al., 2020).
- Healthcare Delivery Policies: Aimed at the organization and provision of healthcare services. This includes policies on the management of hospitals and clinics, the distribution of healthcare providers, and the use of technology in healthcare delivery.
- Quality and Safety Policies: Focus on improving the quality and safety of healthcare services. This encompasses guidelines and regulations for clinical practice, patient care standards, and healthcare facilities' accreditation systems.
- Regulatory Policies: Involve the oversight and regulation of healthcare professionals, pharmaceuticals, and medical devices to ensure they meet established practice and safety standards (Tobin & Walsh, 2023).

3.2. Objectives and Components of General Healthcare Policy

The primary objectives of general healthcare policy are to improve the accessibility, quality, and efficiency of healthcare services while ensuring the equitable distribution of healthcare resources across different segments of the population. To achieve these objectives, healthcare policies typically comprise several key components:

- Legislation: Laws that provide the legal framework for the healthcare system were enacted (Thakkar et al., 2020).
- Regulations: Detailed rules and guidelines issued by government agencies to implement the healthcare laws (Yearby & Mohapatra, 2020).
- Programs: Specific initiatives designed to address particular health needs or goals.
- Funding: Allocation of financial resources to support healthcare services and initiatives.
- Evaluation: Mechanisms for assessing the effectiveness and efficiency of healthcare policies and programs.

3.3. The Role of Government and Private Sectors in Healthcare Policy Formulation and Implementation

The formulation and implementation of healthcare policy are complex processes involving multiple stakeholders from the government and private sectors.

Through various agencies and departments, the government is primarily responsible for formulating healthcare policy. This includes defining the legal framework, setting health priorities, allocating resources, and regulating the healthcare market. Governments also play a crucial role in implementing policies directly through public health programs and services or indirectly by regulating and overseeing private sector activities.

The private sector, including healthcare providers, insurance companies, pharmaceutical firms, and non-governmental organizations, plays a significant role in the healthcare system. In policy formulation, private stakeholders often contribute through advocacy, research, and offering expertise on specific healthcare issues. In implementation, private healthcare providers deliver a substantial portion of healthcare services, finance healthcare through insurance products, and innovate in healthcare delivery and technology.

The interplay between government and private sectors is critical for effectively formulating and implementing healthcare policies. Collaboration and partnership between these sectors can enhance the efficiency, accessibility, and quality of healthcare services, thereby achieving the overarching goals of healthcare policy.

4. Influence of Healthcare Policy on Management Practices

The interconnection between healthcare policy and management practices within hospitals and healthcare organizations is profound and multifaceted. Healthcare policies, designed to shape the objectives and frameworks within which healthcare services are delivered, directly and significantly impact how healthcare organizations are managed. This influence manifests in various ways, from operational adjustments and shifts in strategic focus to the adoption of new technologies and approaches to patient care. Understanding these impacts is essential for healthcare managers who play a crucial role in advocating for effective policies and implementing them within their organizations.

4.1. Impact of Healthcare Policies on Hospital and Healthcare Management

Healthcare policies influence management practices in several key areas:

- Operational Efficiency: Policies that promote the efficient use of resources, such as those encouraging the adoption of electronic health records (EHRs), directly affect operational practices. Managers must adapt workflows, train staff, and integrate new technologies to comply with these policies, aiming to improve efficiency and reduce costs (Jianxun, Arkorful, & Shuliang, 2021).
- Quality of Care: Policies setting quality and safety standards require healthcare managers to implement quality improvement initiatives, adopt best practices, and ensure compliance with standards. This often involves reevaluating and redesigning patient care processes to meet or exceed regulatory requirements (Coles et al., 2020).
- Financial Management: Healthcare financing policies, including changes in reimbursement models by insurance companies and government programs, significantly impact how healthcare managers plan budgets, manage revenue cycles, and allocate resources. Managers must navigate these policies to ensure financial stability while providing high-quality care.
- Access to Care: Policies aimed at increasing healthcare access, such as those expanding insurance coverage or targeting underserved populations, require managers to adjust service offerings, develop facilities, or implement community outreach programs to meet new demand patterns (Donohue et al., 2022).

4.2. Changes in Management Practices in Response to Policy Shifts

Healthcare management practices evolve in response to policy shifts in several critical areas:

- Digital Health Records: The push towards digital health records has revolutionized healthcare management. Managers have had to oversee the implementation of complex EHR systems, ensure data security and privacy in line with regulations, and leverage digital records to improve care coordination and patient outcomes (Mbunge, Muchemwa, & Batani, 2021).
- Patient-Centered Care: Policies promoting patient-centred care have led managers to adopt a more holistic approach to service delivery. This includes enhancing patient engagement, personalizing care plans, and improving patient experience through facility redesigns, service quality improvements, and feedback mechanisms (Gorod, Hallo, & Merchant, 2021).
- Quality and Safety Standards: The emphasis on quality and safety has prompted healthcare managers to prioritize patient safety initiatives, implement continuous quality improvement processes, and engage in accreditation programs. These efforts require a culture shift within organizations, with an increased focus on transparency, accountability, and evidence-based practices (Wong et al., 2020).

4.3. The Role of Healthcare Managers in Policy Advocacy and Implementation

Healthcare managers are not passive recipients of policy directives; they play an active role in shaping healthcare policy and ensuring its successful implementation within their organizations.

Managers can advocate for policies that support effective healthcare delivery and organizational sustainability. Managers can influence policy decisions through professional associations, direct lobbying, or participation in policy development panels based on their frontline experience and expertise. Once policies are enacted, healthcare managers are crucial to their effective implementation. This involves interpreting policy requirements, integrating them into organizational strategies, and leading change management efforts to align staff, processes, and technologies with new policy mandates (Jagals & Ebi, 2021).

5. Challenges in Aligning Management Practices with Healthcare Policies

The alignment of management practices with healthcare policies is a complex and often challenging process. Healthcare organizations face numerous barriers that can hinder the effective implementation of policies, ranging from financial constraints to cultural resistance and operational difficulties. Understanding these challenges is crucial for developing effective strategies to overcome them, ensuring that policies are implemented efficiently and achieve their intended outcomes.

5.1. Barriers to Effective Implementation of Policies within Healthcare Organizations

Many healthcare policies require significant investment in technology, training, and infrastructure. However, healthcare organizations, especially those in under-resourced areas, often face financial limitations that hinder their ability to comply with these requirements. Limited budgets can restrict the acquisition of new technologies, the expansion of services, and the hiring of additional staff needed to meet policy mandates (Correa et al., 2020).

Changes in management practices often encounter resistance from within the organization. Healthcare professionals may be skeptical of new policies, particularly if they perceive them as adding to their workload or challenging established practices. Overcoming this resistance requires addressing concerns, fostering a culture of adaptability, and demonstrating the benefits of new practices. Implementing new management practices often requires significant changes to existing operational processes. This can involve retraining staff, redesigning workflows, and integrating new technologies. Such operational changes can be disruptive and may encounter logistical difficulties, leading to delays and inefficiencies in policy implementation (Kho, Gillespie, & Martin-Khan, 2020).

5.2. Financial, Cultural, and Operational Challenges in Adopting New Management Practices

The integration of new management practices in response to healthcare policies presents a multifaceted set of challenges encompassing financial, cultural, and operational dimensions. Implementing policies such as upgrading IT systems for digital health records or adhering to new quality and safety standards demands significant financial investment. Organizations are tasked with securing funding for these initiatives while maintaining their day-to-day operations. Furthermore, the shift towards new practices often encounters resistance due to cultural inertia, requiring efforts to modify established norms and behaviours through effective leadership and communication (You, Kim, & Lim, 2021). Operational adjustments, necessary for aligning with policy changes, also strain resources, demanding substantial alterations to existing workflows and processes.

To navigate these challenges, healthcare organizations can employ a variety of strategies. Engaging all stakeholders in the implementation process aids in identifying obstacles and crafting widely supported solutions. Investing in comprehensive training and professional development ensures that staff are well-prepared to adopt new practices, simultaneously addressing resistance by demonstrating a commitment to staff growth. Leveraging technology, such as cloud-based solutions and process automation, can alleviate financial and operational burdens (Sannino, 2022). Implementing changes flexibly and phased minimizes disruption, allowing for a smoother transition. Collaboration with external entities offers access to additional resources and shared knowledge. Finally, establishing a feedback loop for continuous evaluation fosters the ability to fine-tune management practices in response to ongoing challenges, ensuring adaptability and sustainability in the face of policy-driven change (Chidolue & Iqbal, 2023; Huang et al., 2023; Ninduwezuor-Ehiobu et al., 2023; Uchechukwu, Amechi, Okoye, & Okeke, 2023).

6. Global Perspectives on Healthcare Policy and Management Practices

The global healthcare landscape is marked by diverse policies and management practices, reflecting the wide range of healthcare systems and the cultural, economic, and political contexts in which they operate. A comparative analysis of these systems—particularly the distinction between universal health care and private insurance models—reveals significant insights into how countries approach healthcare management and policy implementation (Preker, Cotlear,

Kwon, Atun, & Avila, 2021). This analysis highlights the varying impacts of healthcare policies on management practices. It provides valuable lessons and best practices that can inform and improve healthcare systems worldwide.

6.1. Comparative Analysis of Healthcare Policies and Their Impact on Management

Countries with universal healthcare systems, such as the United Kingdom, Canada, and many Scandinavian countries, provide healthcare services to all citizens regardless of their ability to pay. These systems are typically funded through taxation and managed by the government. The focus on equitable access to healthcare in these systems necessitates a strong emphasis on efficient resource allocation, quality of care, and preventive services. Healthcare management in these contexts often involves navigating government regulations, ensuring compliance with national health standards, and managing public resources efficiently to meet the population's healthcare needs (Ramesh & Bali, 2021).

In contrast, countries like the United States rely heavily on private insurance models, with healthcare services primarily provided through private providers and funded by private insurance, alongside significant government programs like Medicare and Medicaid for specific populations. Management practices in these systems must contend with a complex insurance market, billing and reimbursement challenges, and the need to negotiate contracts with multiple payers (Petrie & Peters, 2020; Wengle, Curran, Courtot, Elmendorf, & Lucia, 2020). This model often leads to a greater focus on competitive pricing, marketing of healthcare services, and innovation in healthcare delivery to attract patients (Afolabi, Danladi, & Ilugbusi, 2022; Johnson et al., 2023).

6.2. Lessons Learned and Best Practices from International Contexts

- Universal healthcare systems demonstrate the importance of efficient resource allocation to ensure that a limited pool of resources can meet the healthcare needs of the entire population. This involves prioritizing preventive care, investing in primary care services, and using evidence-based guidelines to allocate resources.
- Both systems underscore the critical importance of maintaining high-quality standards in healthcare delivery. Universal healthcare systems highlight accessibility as a fundamental aspect of healthcare quality. At the same time, private insurance models emphasize the role of innovation and patient satisfaction in driving quality improvement.
- The universal healthcare model offers valuable insights into achieving healthcare equity, ensuring all citizens access to necessary healthcare services. This includes addressing social determinants of health and providing comprehensive coverage that does not exclude pre-existing conditions.
- Private insurance models, focusing on competition and innovation, demonstrate the benefits of adaptability in healthcare management practices. This includes leveraging technology to improve healthcare delivery, developing new patient care models, and adopting flexible management strategies to respond to market changes.
- Regardless of their underlying model, successful healthcare systems often feature a high degree of collaboration and integration among healthcare providers, government agencies, and other stakeholders. Integrated care models focusing on the patient's journey through the healthcare system can improve care coordination, enhance patient outcomes, and reduce costs.
- Engaging the public in healthcare policy development and maintaining transparency in healthcare management practices are crucial for building trust and ensuring that healthcare systems meet the needs and expectations of the population.

7. Future Directions

The healthcare landscape is continually evolving, driven by changes in demographics, technology, and societal expectations. As we look to the future, several emerging trends in healthcare policy are poised to influence management practices within the sector significantly. Additionally, the role of research, innovation, and technology will be crucial in shaping these future policies and the strategies employed by healthcare managers. Understanding these directions is essential for healthcare leaders aiming to navigate the complexities of the future healthcare environment effectively.

7.1. Emerging Trends in Healthcare Policy and Implications for Management Practices

- Value-Based Care: A significant shift towards value-based care models is transforming healthcare policy globally. This approach focuses on outcomes rather than procedures, incentivizing providers to deliver high-quality, efficient care. For management practices, this trend necessitates a greater emphasis on measuring and reporting outcomes, implementing evidence-based practices, and investing in preventive care and wellness programs.

- Digital Health Expansion: The adoption of digital health technologies, including telehealth, digital therapeutics, and AI-driven diagnostics, rapidly expanding. Healthcare policies increasingly support this shift, with implications for management regarding integrating new technologies into care delivery models, ensuring data privacy and security, and training staff to utilize these tools effectively.
- Health Equity: Addressing health disparities and promoting health equity have become central to healthcare policy discussions. Management practices must adapt to focus more on social determinants of health, develop services tailored to underserved populations, and implement equitable care delivery practices.
- Sustainable Healthcare: Sustainability in healthcare, encompassing environmental, economic, and social sustainability, is gaining attention. Future policies may require healthcare organizations to reduce their environmental footprint, manage resources more efficiently, and ensure the long-term sustainability of healthcare services. Managers will need to incorporate sustainability principles into operational and strategic decision-making.
- Global Health Security: The COVID-19 pandemic highlighted the importance of global health security and preparedness. Future healthcare policies will likely emphasize infectious disease surveillance, emergency preparedness, and cross-border health threats. Management practices must focus on resilience planning, crisis management, and collaboration with public health agencies.

7.2. The Role of Research, Innovation, and Technology in Shaping Future Policies and Management Strategies

- Ongoing research is crucial for informing healthcare policy and ensuring that decisions are based on the latest evidence. For healthcare managers, staying abreast of research findings and incorporating them into practice will be essential for improving care quality and outcomes.
- Innovations in care models, such as integrated care systems, patient-centred medical homes, and community-based health initiatives, are shaping future policies. Managers must be adept at leading change, fostering innovation within their organizations, and scaling successful models of care.
- Technology will continue to play a pivotal role in healthcare management. Integrating electronic health records, data analytics, machine learning, and blockchain can enhance operational efficiency, patient care, and decision-making. Managers will need to navigate the challenges of technology adoption, including interoperability, user training, and cybersecurity.
- Advances in genomics and precision medicine are leading to more personalized approaches to care. Policies may increasingly support genetic information in clinical decision-making, requiring managers to address the ethical, legal, and operational implications of personalized medicine.
- The future of healthcare policy and management lies in collaborative ecosystems that bring together providers, payers, patients, and technology companies. Building and managing these partnerships will require collaboration, negotiation, and ecosystem thinking skills.

8. Conclusion

This review delves into the complex interplay between healthcare policy and management practices, highlighting how policies significantly influence management strategies and the day-to-day operations of healthcare organizations. It points out the crucial role of aligning management practices with evolving healthcare policies to ensure the delivery of effective healthcare services and achieving positive patient outcomes. The analysis reveals that healthcare policies shape the regulatory, financial, and operational environment, necessitating adaptations in resource allocation, quality standards, and incorporating digital health technologies, all aimed at fostering patient-centred care.

The review further underscores the challenges in aligning management practices with healthcare policies, including financial constraints, cultural resistance, and operational hurdles. It emphasizes the importance of strategic planning, stakeholder engagement, and continuous improvement in overcoming these challenges. Additionally, it highlights the critical role of healthcare managers in implementing these policies within their organizations and advocating for policy changes to support enhanced healthcare delivery and outcomes. The alignment of management practices with healthcare policies is portrayed as a strategic imperative for the sustainability and effectiveness of healthcare organizations, enabling them to respond proactively to the dynamic healthcare environment.

In offering recommendations for healthcare managers and policy-makers, the review stresses the need to stay informed about healthcare policies, foster organizational flexibility and innovation, and engage in policy discussions. For managers, investing in staff training and development is crucial for successfully implementing policy changes. Policy-makers are advised to consult with healthcare managers, promote transparency, support innovation, and regularly evaluate the impact of policies on management practices and patient outcomes. By fostering collaboration and aligning

management practices with policy objectives, the healthcare sector can continue to evolve, enhancing service delivery, patient outcomes, and effectively meeting the challenges of an ever-changing healthcare landscape.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

[1] Afolabi, B., Danladi, J. D., & Ilugbusi, S. (2022). DETERMINANTS OF YOUTH ENGAGEMENT IN AGRIBUSINESS: IMPLICATIONS FOR SUSTAINABLE AGRICULTURAL PRACTICES IN SOUTHWEST, NIGERIA. Fuoye Journal of Management, Innovation and Entrepreneurship, 1(1).

[2] Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. Human Resource Development Quarterly, 31(4), 393-421.

[3] Alshahrani, I., Al-Jayyousi, O., Aldhmour, F., & Alderaan, T. (2024). Towards understanding the influence of innovative work behavior on healthcare organizations' performance: the mediating role of transformational leaders. Arab Gulf Journal of Scientific Research, 42(1), 198-216.

[4] Cameron, G., Chandra, R. N., Ivey, M. F., Khatri, C. S., Nemire, R. E., Quinn, C. J., & Subramaniam, V. (2022). ASHP statement on the pharmacist's role in public health. American Journal of Health-System Pharmacy, 79(5), 388-399.

[5] Chen, Y., VanderLaan, P. A., & Heher, Y. K. (2021). Using the model for improvement and plan-do-study-act to effect smart change and advance quality. Cancer cytopathology, 129(1), 9-14.

[6] Chidolue, O., & Iqbal, T. (2023). System Monitoring and Data logging using PLX-DAQ for Solar-Powered Oil Well Pumping. Paper presented at the 2023 IEEE 13th Annual Computing and Communication Workshop and Conference (CCWC).

[7] Coles, E., Anderson, J., Maxwell, M., Harris, F. M., Gray, N. M., Milner, G., & MacGillivray, S. (2020). The influence of contextual factors on healthcare quality improvement initiatives: a realist review. Systematic reviews, 9, 1-22.

[8] Correa, V. C., Lugo-Agudelo, L. H., Aguirre-Acevedo, D. C., Contreras, J. A. P., Borrero, A. M. P., Patiño-Lugo, D. F., & Valencia, D. A. C. (2020). Individual, health system, and contextual barriers and facilitators for the implementation of clinical practice guidelines: a systematic metareview. Health research policy and systems, 18, 1-11.

[9] Donohue, J. M., Cole, E. S., James, C. V., Jarlenski, M., Michener, J. D., & Roberts, E. T. (2022). The US Medicaid program: coverage, financing, reforms, and implications for health equity. JAMA, 328(11), 1085-1099.

[10] Ente, C., & Ukpe, M. (2022). Quality Management. In Essentials for Quality and Safety Improvement in Health Care: A Resource for Developing Countries (pp. 137-165): Springer.

[11] Gorod, A., Hallo, L., & Merchant, S. (2021). Governance of patient-centred care: A systemic approach to cancer treatment. Systems Research and Behavioral Science, 38(2), 257-271.

[12] Harish, R., Suresh, R. S., Rameesa, S., Laiveishiwo, P., Loktongbam, P. S., Prajitha, K., & Valamparampil, M. J. (2020). Health insurance coverage and its impact on out-of-pocket expenditures at a public sector hospital in Kerala, India. Journal of Family Medicine and Primary Care, 9(9), 4956.

[13] Hinde, S., Bojke, L., & Coventry, P. (2021). The cost effectiveness of ecotherapy as a healthcare intervention, separating the wood from the trees. International journal of environmental research and public health, 18(21), 11599.

[14] Huang, Y., Zhang, J., Ren, Z., Xiang, W., Sifat, I., Zhang, W., . . . Li, B. (2023). Next generation decentralized water systems: a water-energy-infrastructure-human nexus (WEIHN) approach. Environmental Science: Water Research & Technology.

[15] Jagals, P., & Ebi, K. (2021). Core competencies for health workers to deal with climate and environmental change. International journal of environmental research and public health, 18(8), 3849.

[16] Jianxun, C., Arkorful, V. E., & Shuliang, Z. (2021). Electronic health records adoption: Do institutional pressures and organizational culture matter? Technology in Society, 65, 101531.

[17] Johnson, D., Pranada, E., Yoo, R., Uwadiunor, E., Ngozichukwu, B., & Djire, A. (2023). Review and Perspective on Transition Metal Electrocatalysts Toward Carbon-neutral Energy. Energy & Fuels, 37(3), 1545-1576.

[18] Junior, C. M., Ribeiro, D. M. N. M., & Viana, A. B. N. (2021). Public health in times of crisis: An overlooked variable in city management theories? Sustainable Cities and Society, 66, 102671.

[19] Kho, J., Gillespie, N., & Martin-Khan, M. (2020). A systematic scoping review of change management practices used for telemedicine service implementations. BMC health services research, 20, 1-16.

[20] Liebler, J. G., & McConnell, C. R. (2020). Management principles for health professionals: Jones & Bartlett Learning.

[21] Mbunge, E., Muchemwa, B., & Batani, J. (2021). Sensors and healthcare 5.0: transformative shift in virtual care through emerging digital health technologies. Global Health Journal, 5(4), 169-177.

[22] McGill, E., Er, V., Penney, T., Egan, M., White, M., Meier, P., . . . Smith, R. (2021). Evaluation of public health interventions from a complex systems perspective: a research methods review. Social Science & Medicine, 272, 113697.

[23] Mitchell, P. M. (2021). The cost-effectiveness of what in health and care? Defining the Value of Medical Interventions: Normative and Empirical Challenges.

[24] Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. Journal of cleaner production, 243, 118595.

[25] Ninduwezuor-Ehiobu, N., Tula, O. A., Daraojimba, C., Ofonagoro, K. A., Ogunjobi, O. A., Gidiagba, J. O., . . . Banso, A. A. (2023). TRACING THE EVOLUTION OF AI AND MACHINE LEARNING APPLICATIONS IN ADVANCING MATERIALS DISCOVERY AND PRODUCTION PROCESSES. Engineering Science & Technology Journal, 4(3), 66-83.

[26] Nutbeam, D., & Muscat, D. M. (2021). Health promotion glossary 2021. Health Promotion International, 36(6), 1578-1598.

[27] Organization, W. H. (2021). Guidance on community mental health services: promoting person-centred and rights-based approaches.

[28] Petrie, S., & Peters, P. (2020). Untangling complexity as a health determinant: Wicked problems in healthcare. Health Science Inquiry, 11(1), 131-135.

[29] Preker, A. S., Cotlear, D., Kwon, S., Atun, R., & Avila, C. (2021). Universal health care in middle-income countries: Lessons from four countries. Journal of global health, 11.

[30] Ramesh, M., & Bali, A. S. (2021). Health policy in Asia: Cambridge University Press.

[31] Sannino, R. (2022). The impact of cloud adoption on ICT financial management: how to address emerging challenges.

[32] Smithson, R. (2022). The compatibility of multiple leadership styles in responding to a complex crisis: leading a health service COVID-19 response. Journal of Health Organization and Management, 36(4), 469-481.

[33] Taylor, F. W. (2023). the Rise of Scientific Management. The Quantified Worker: Law and Technology in the Modern Workplace, 9.

[34] Thakkar, S., Anklam, E., Xu, A., Ulberth, F., Li, J., Li, B., . . . Swift, S. (2020). Regulatory landscape of dietary supplements and herbal medicines from a global perspective. Regulatory Toxicology and Pharmacology, 114, 104647.

[35] Tobin, J. J., & Walsh, G. (2023). Medical product regulatory affairs: pharmaceuticals, diagnostics, medical devices: John Wiley & Sons.

[36] Uchechukwu, E. S., Amechi, A. F., Okoye, C. C., & Okeke, N. M. (2023). Youth Unemployment and Security Challenges in Anambra State, Nigeria. Sch J Arts Humanit Soc Sci, 4, 81-91.

[37] Ullah, I., Khan, K. S., Tahir, M. J., Ahmed, A., & Harapan, H. (2021). Myths and conspiracy theories on vaccines and COVID-19: Potential effect on global vaccine refusals. Vacunas, 22(2), 93-97.

[38]   Wager, K. A., Lee, F. W., & Glaser, J. P. (2021). Health care information systems: a practical approach for health care management: John Wiley & Sons.

[39]   Wengle, E., Curran, E., Courtot, B., Elmendorf, C., & Lucia, K. (2020). Effects of Medicaid health plan dominance in the health insurance marketplaces. Washington, DC: Urban Institute, 500.

[40]   Wong, B. M., Baum, K. D., Headrick, L. A., Holmboe, E. S., Moss, F., Ogrinc, G., . . . Frank, J. R. (2020). Building the bridge to quality: an urgent call to integrate quality improvement and patient safety education with clinical care. Academic Medicine, 95(1), 59-68.

[41]   Yearby, R., & Mohapatra, S. (2020). Law, structural racism, and the COVID-19 pandemic. Journal of Law and the Biosciences, 7(1), lsaa036.

[42]   You, J., Kim, J., & Lim, D. H. (2021). Organizational learning and change: Strategic interventions to deal with resistance. In Research Anthology on Digital Transformation, Organizational Change, and the Impact of Remote Work (pp. 723-741): IGI Global.

[43]   Zaree, A., Dev, S., Khan, I. Y., Arain, M., Rasool, S., Rana, M. A. K., . . . Puri, P. (2023). Cardiac rehabilitation in the modern era: optimizing recovery and reducing recurrence. Cureus, 15(9).