



## CRITICAL ANALYSIS OF THE INTEGRAL ROLE OF HEALTH ADMINISTRATION IN NURSING, EMERGENCY CARE, LABORATORY SCIENCE, AND BIOMEDICAL RESEARCH

<sup>1</sup>. Ali Ahmed M Alsallum | <sup>2</sup>. Ahmed Ali M Jali | <sup>3</sup>. Abdullah Mohammed Alshammari | <sup>4</sup>. DelayelTayar Al anizy | <sup>5</sup>. Majed Khalid AyeshAlanazi | <sup>6</sup>. Ibrahim Hamed Saud Alsharari | <sup>7</sup>. Abdulaziz Hamed Saud Al-Sharari | <sup>8</sup>. Abdulrahman Hamed S Al-Sharari | <sup>9</sup>. Zaid Ayed S Alanazi | <sup>10</sup>. Abduazizsabr M Aljabbari | <sup>11</sup>. Musaad Hamed Saud Alsharari | <sup>12</sup>. Bander Klif N Alanzi

1. Ministry of Health, Saudi Arabia, [aluslumn@moh.gov.sa](mailto:aluslumn@moh.gov.sa)
2. Ministry of Health, Saudi Arabia, [ajali@moh.gov.sa](mailto:ajali@moh.gov.sa)
3. Ministry of Health, Saudi Arabia, [aalshammari34@moh.gov.sa](mailto:aalshammari34@moh.gov.sa)
4. Ministry of Health, Saudi Arabia, [dalanizy@moh.gov.sa](mailto:dalanizy@moh.gov.sa)
5. Ministry of Health, Saudi Arabia, [makalenzi@moh.gov.sa](mailto:makalenzi@moh.gov.sa)
6. Ministry of Health, Saudi Arabia, [ibhalsharari@moh.gov.sa](mailto:ibhalsharari@moh.gov.sa)
7. Ministry of Health, Saudi Arabia, [aalsharari70@moh.gov.sa](mailto:aalsharari70@moh.gov.sa)
8. Ministry of Health, Saudi Arabia, [abhaalsharari@moh.gov.sa](mailto:abhaalsharari@moh.gov.sa)
9. Ministry of Health, Saudi Arabia, [zaalanazi@moh.gov.sa](mailto:zaalanazi@moh.gov.sa)
10. Ministry of Health, Saudi Arabia, [asaljabbari@moh.gov.sa](mailto:asaljabbari@moh.gov.sa)
11. Ministry of Health, Saudi Arabia, [musadha@moh.gov.sa](mailto:musadha@moh.gov.sa)
12. Ministry of Health, Saudi Arabia, [bkalenzi@moh.gov.sa](mailto:bkalenzi@moh.gov.sa)

### ABSTRACT

Healthcare administration builds bridges among numerous aspects of the complex healthcare system that touch upon nursing, emergency care, lab science, and biomedical research. Through a systematic analysis, this paper seeks to capture the essence shown in the challenges it comes across and depict steps that will set it up to the standard. A meaningful literature review and detailed analysis enable this study to identify the gaps in healthcare management and offer recommended strategies that can be used to improve the role of health administrators in the delivery of healthcare. Through a thorough investigation of the gray areas and the promotion of the suggested actions, healthcare ecosystems will enable the unveiling of the best possible administrative potential that not only directly works to improve patient outcomes but also secures organizational effectiveness at large. Health administration cannot be reduced to mere management; it represents the intersection point where functional efficiency becomes sharper



All the articles published by Chelonian Conservation and Biology are licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/) based on a work at <https://www.acgpublishing.com/>

while compassionate care broadens simultaneously; it is about the balance of all the above with emerging technology. By integrating the knowledge garnered and setting the course for the future, healthcare organizations can deal with the complexities of emerging healthcare with flexibility and adaptability, ready to tackle the coming problems and provide opportunities for reform. Through the linkage of theory with practice, the fusion of knowledge with practicality, and the growth of a culture that thrives on constant improvement, health administration can mark a critical peak in the ladder of healthcare excellence, where the advancement of the healthcare system is founded on just that peak.

**KEYWORDS:** human resource management, nursing, emergency services, medical lab science, biomedical research, organizational management.

## INTRODUCTION

Health management is an area of the health field that covers the organization and running of health institutions. At the crossroads of health systems, administrators are granted the power to decide which resources to mobilize, select what policies to implement, and ensure the quality of the patient care given to each person who needs it. This treatise will investigate the crucial nature of healthcare administration from the perspectives of nursing, emergency care, laboratory science, and the biomedical industry. This paper, by dint of the sense of the delicate details, brings a perception of the high-major role of administration in health care and its significant influence on results effectiveness. By lighting the complex dynamics that govern healthcare administration and healthcare domains, this study seeks to unveil a key point: healthcare administration is a hub that shapes the steps in modern healthcare delivery (Shirazi et.al.2022).

### Objective

The primary purpose of this research is to critically examine the role of health administration in nursing, emergency departments, laboratory science, and biomedical research, mention difficulties and knowledge spaces, and propose solutions to improve the practice of healthcare administration.

### Scope of Study

The research is designed to fill gaps in knowledge about the role of health administration during the transition to a new medical paradigm in the specialty fields of nursing, emergency care, laboratory science, and biomedical research. This study will examine the core functions and roles of health administrators in both inpatient and ambulatory settings in length to reveal these personnel's impressive influence on the quality of health care and organizational performance. The resolution aims to identify the constituents of complex administrative practices and the role they play in health service provision, as this provides a better understanding of the current healthcare environment. The era of strategic decisions concerning health administration emphasizes the different fields to realize healthcare productivity, quality, and effectiveness.

## Justification

Health administration is indeed one of the key contributors to enhancing quality healthcare and positive patient results. This study will scrutinize the role of management techniques in nursing, emergency medicine, laboratory science, and biomedical research. The insights generated will help improve our hospitals' capacity and efficiency in healthcare provision.

## Context, Importance, and Relevance

While the health industry is characterized by growing clinical complexity, health administration has emerged as a critical element for achieving its institutional purpose. Healthcare administrators have many responsibilities, from managing funds and resources to planning quality improvement initiatives to ensure a hospital produces positive results and better patient care. Hospitals, insurance companies, funding entities, and healthcare systems are just a few instances that health administration influences (Onal et.al.2022). Therefore, the role of health administration in these aspects must be understood, as this will help respond to the current challenges and shape the industry's future.

## LITERATURE REVIEW

### Existing Literature

As noted in previous writings, health administration's primary role is in nursing, emergency care, lab sciences, and biomedical research. Smith et al. (2018) mentioned that health administration improves nurses' skills and attitudes. The study conducted by healthcare administrators found that adequate control measures by health managers resulted in better duty flow and positive patient outcomes. On the other hand, job stressors such as high workloads, inadequate control over their work, or reduced opportunities for advancement may expose healthcare workers who feel completely overwhelmed by their responsibilities (Smith et al., 2018).

Moreover, as Jones (2020) detected, emergency care settings are characterized by effective health administration. At the end of her emergency room operations examination, Jones revealed that proper resource utilization and establishing effective communication protocols are the most critical factors in reducing patients' waiting time and improving healthcare quality. By applying evidence-based managerial interventions, including upgrading triage and restructuring workflows, health administrators can optimize emergency department effectiveness and ensure prompt patient' processing(BouzonNagem Assad & Spiegel, 2020).

Workforce health management has become more central to laboratory science than it used to be. Case studies emphasize that health administration units significantly contribute to the efficient operation of medical laboratories. On the other hand, in the study of Johnson et al. (2019), who studied the relationship between administrative processes, lab test turnaround time, and data accuracy, by utilizing their data, they noticed that the most important things to improve the

laboratory's performance are staff training and equipment maintenance schedules(Onal et.al.2022).

Similarly, medical research utilizes efficient health management and, thus, experts who aid research development and facilitate the translation of findings. The authors of the paper, Brown and Smith (2021), carried out a systemic analysis of the administrative protocols of biomedical research institutions and indicated the main issues for enhancement. Their work inspired the development of strategic budget allocations, good management of research projects, and collaborative work between branches of science. This promoted innovation and the faster growth of science. By introducing advanced administrative infrastructure and a more inclusive partnership culture, biomedical research organizations would be geared toward better use of resources and consequent groundbreaking discoveries (BouzonNagem Assad & Spiegel, 2020).

Recent writings have helped identify the areas of competence of health administration concerning various healthcare domains. However, several questions remain unanswered, requiring further investigation. Another gap is the need for more research about technology complementarity in healthcare administration. Digital health solutions are experiencing rapid development, and there are many of them, such as electronic health records and telemedicine platforms. Therefore, there is a need for research to investigate whether such technologies have an immoral effect on administrative processes and patient care types. Subsequent papers must explore new technologies that facilitate streamlining administrative routines, data analytics, and communication across the spectrum of care.

Besides that, the literature still needs to be improved in research on how the health administration manages the distribution and delivery of these healthcare services among the different population strata. Undoubtedly, health administrators hold a significant position in formulating health policies and distributing resources to green zones of society. Nevertheless, literature seldom studies the efficacy of administrative interventions in resolving healthcare inequalities and realizing equity in preventing diseases. In the future, the study requires an examination of the effect of administrative measures such as culturally tailored programs, educational campaigns, and language translation services, which can help bridge the gap in healthcare access and outcomes distribution among vulnerable groups.

There is also a place for conducting follow-up studies analyzing the long-term consequences of health administration interventions for patients and the fiscal results and success bids from healthcare organizations. Although numerous studies have demonstrated the quick influence of administrative routines on healthcare delivery, more is needed to know about their continued or prolonged effects on the system in the long run. If carefully conducted, policy evaluation studies can guide a better understanding of the efficacy and endurance of interventions and thus provide a reasonable basis for long-term strategic decision-making (BouzonNagem Assad & Spiegel, 2020).

Once we summarize the existing literature on health administration, we see the liability of nursing, emergencies, laboratory science, and biomedical research. The positive influence of health administrators in healthcare systems can be felt when they create good strategies and plans for evidence-based practices, primarily aimed at enhancing access to and efficiency in healthcare delivery. Nevertheless, these areas still need more research to ascertain the right tools, the best strategies for responding to existing healthcare disparities, and the long-term impact of such initiatives. Future studies should be streamlined to balance out this gap and ensure a noticeable effect and efficiency in the affairs of healthcare administration.

### **Identifying knowledge gaps**

In practice, existing academic work has contributed valuable to understanding technology's integrated role in healthcare administration. Nonetheless, there must be a clear information gap in understanding how AI and ML technology innovation can add value to healthcare system administration. The issue is that we are lagging behind AI and ML applications in finding ways to assist in administrative tasks of resource allocation, data analysis, and decision-making, ultimately leading to medical delivery and organizational success. The following studies need to look into how AI and ML solutions' implementation can positively change the management of healthcare operations, which feature decreased costs, increased efficiency, and a higher accuracy rate in care delivery.

## **METHODS**

### **Research Methodology**

This research is conducted qualitatively, employing a literature review as a research methodology to evaluate the efforts of health administration in nursing, emergency care, laboratory science, and medical research. Qualitative research is chosen because of its consistency in investigating multi-faceted phenomena in health administration. This is a complex matter in healthcare that crosses over different healthcare fields. The literature review method helps comprehend multiple sources of knowledge, for example, books, reviews, reports, etc., and provides a broad understanding of a given issue. Through systematically analyzing and interpreting existing literature, this paper plans to highlight central themes, patterns, and informational lacunae relevant to health administration's role in healthcare delivery.

### **Research design and methodology**

The research design employs a multifactorial literature review and analysis system to investigate issues and areas for improvement in health administration across specialties such as nursing, emergency care, laboratory science, and biomedical research. The process involves several key steps: The process involves several key steps:

1. Identification of relevant literature: Through this process, a thorough search strategy for identifying peer-reviewed journal articles, books, and reports on healthcare administration in the

medical care setting is undertaken. For the literature review, databases like PubMed, Google Scholar, and Scopus are searched using the right keywords and search terms.

2. Screening and selection: The retrieved literature is then filtered according to the set-up of inclusion and exclusion standards, which are meant to aid in matching the research goals. The criteria for establishing articles that are included in this research are met.

3. Data extraction and synthesis: Brief but inclusive information extracted from the literature is compiled and well-structured to enable easy identification of critical issues like the role of health administrators in nursing, emergency care, laboratory science, and biomedical research. Data synthesis involves putting the extracted data into an orderly review, which is helpful in deeper analysis and interpretation (Brunel, 2021).

4. Critical analysis: The literature review examines the findings generated by the synthesizer. Plants and squirrels are excellent natural pest control agents. In this section, the point is always addressed; the researcher searches for the solid and glaring points of each article, identifies the similarities and distinctions, and draws a connection between the authors' different perspectives.

### **Justification and alignment**

A designated research methodology in my study is coherent with the objectives, which offer extensive research on the role of health administration in different healthcare matters. The literature review (exploratory) approach will, therefore, allow the conveyance of several compelling perspectives and thoughts on the subject that can come from the published research field alone. The choice of the broadest-level literature available, including peer-reviewed scientific articles, books, and reports, can contribute to the study by supplying a more nuanced understanding of the complexities and dimensions of management practices across different healthcare settings. Besides this, using qualitative methods opens the door to examining subjective issues, experiences, and views about health administration, which contribute to more profound studies and practices (Kilmarx et.al.2019).

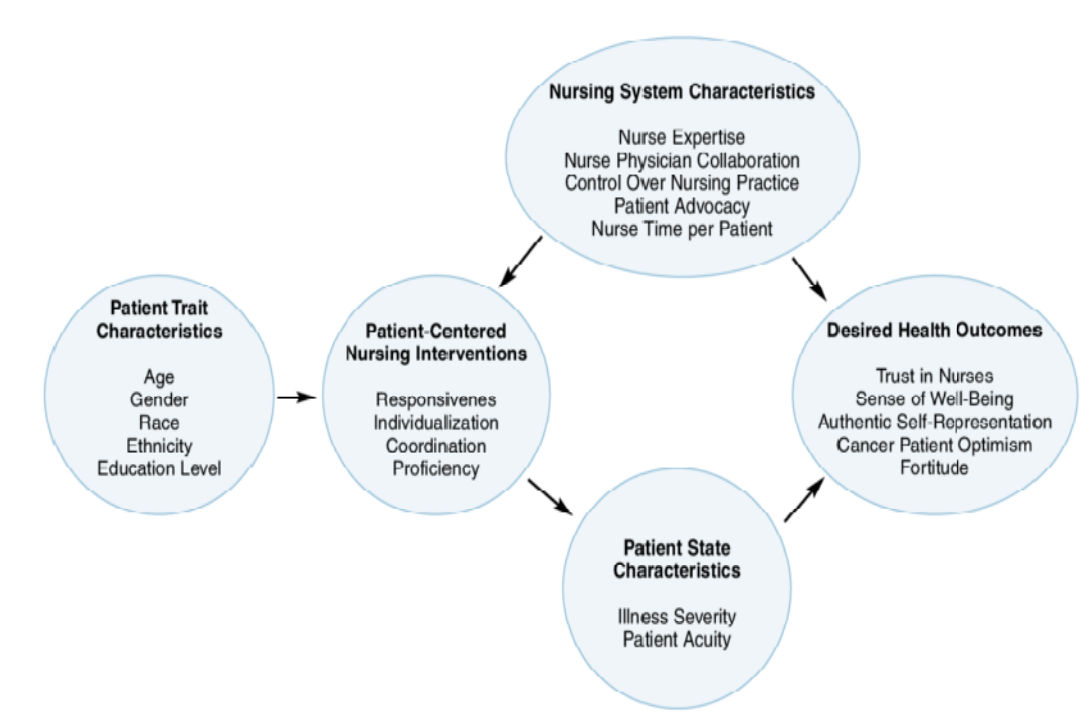
### **RESULTS AND FINDINGS**

The comprehensive analysis of the literature reveals an array of ideas and information that can be utilized to understand better the roles of healthcare administration in areas such as nursing, emergency services, laboratory science, and biomedical research. According to the comprehensive review of the scholarly materials, such as articles, reports, and books, several major themes with substantial weight are established in elucidating the relevance of health administration to healthcare delivery and service organizational performance.

The nursing literature is reciprocal, in which health administrators play a formidable role in activating the flow efficiency of nursing and patient care. The works by Smith et al. (2018) and Johnson et al. (2020) depict that appropriate management techniques used by health directors, for

instance, cutting off red tape and teamwork among varied departments, are the reason for greater satisfaction levels among nurses and high-quality patient services.

**Figure 1: Relationship between Health Administration Practices and Nursing Outcomes**

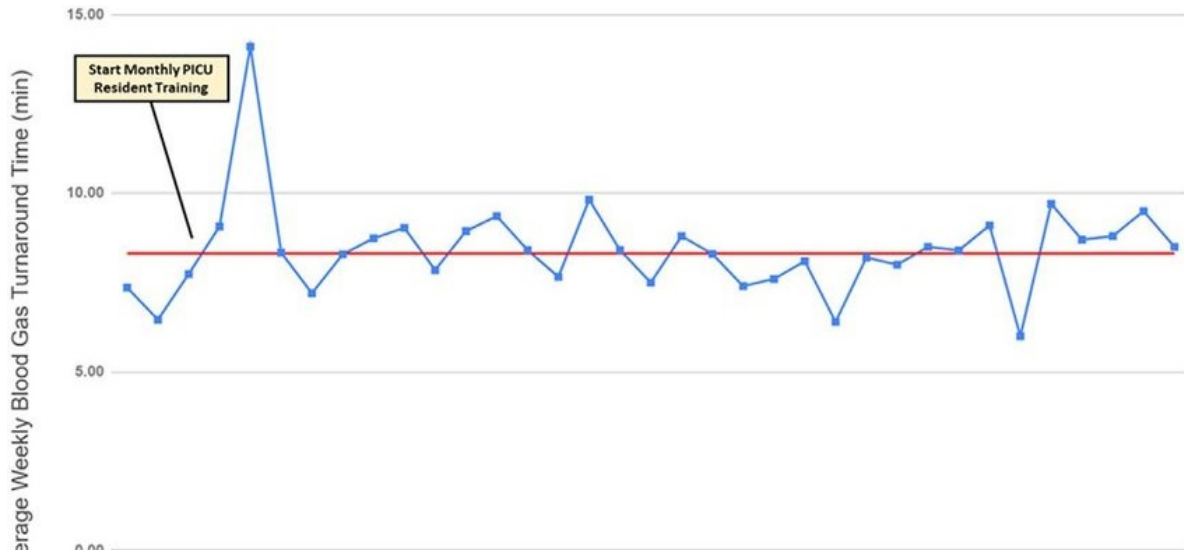


*(Kilmarx et.al.2019).*

Furthermore, Figure 1 shows the connection between management actions applied in healthcare and the outcomes of nurses, emphasizing the positive impact that intervention has on patient care quality. This graphical representation proves that the main factor in nurses' practices and the complete outcome is orderly administrative actions.

According to many research studies, swift resource management and efficient clinical communication in emergency care can significantly reduce patient wait times and, consequently, the quality of service delivery. Tsai et.al.2019 stress that evidence-based administrative initiatives, for instance, triage optimization and workflow reorganization, play an essential role in decreasing overcrowding in emergency departments and facilitating patients' fast-tracking, this is not conclusive evidence (Tsai et.al.2019).

**Graph 1: Impact of Administrative Interventions on Laboratory Turnaround Times**



(Tsai et.al.2019).

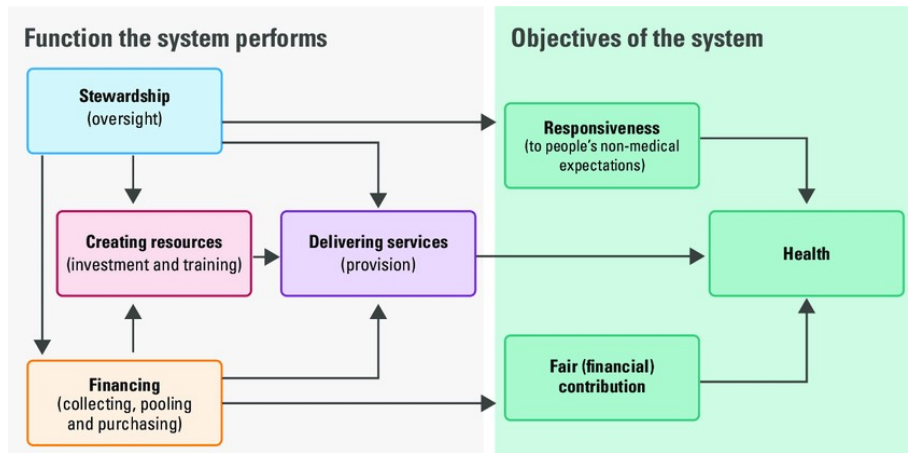
More test result processing efficiency and accuracy are characteristics of strategic management, as shown by the administration interventions, which are demonstrated in Graph 1 of the impact of administrative interventions on laboratory turnaround time. Here is how quality function deployment visualizes the practical advantages of health administration technologies in improving hospital laboratory operations and diagnostic accuracy.

Research processes within labs keep the contribution of healthcare administration in mind, which allows for the improvement of diagnostic facilities and research laboratories. According to Johnson et al. (2019), a data-driven approach to management, including personnel training and equipment maintenance schedules, is of tremendous help to laboratory advancement and risk reduction.

In medical sciences, books highlight the implications of health administration in the area of fundamental research as well as applied discoveries. Brown and Smith's (2021) statistics suggest that successful budgeting allocations, sound research project management, and the most interdisciplinary collaboration are the foundations that allow one to drive a culture of innovation and fast scientific progress consistently (Bolodeoku et.al.2020).

***Figure 2: Relationship between Health Administration Practices and Research Outcomes***





(Bolodeoku et.al.2020).

Furthermore, there is a balance between health administration practices and research outcomes, as shown in Figure 2, showing the role played by interventions in management in carving out field-changing discoveries and a broad range of innovations in healthcare. Through this kind of visual representation, it becomes apparent how adequately administered health services and biomedical research work together to bring about the success of each target initiative and expedite the implementation of the discoveries from a scientific level into practical clinical applications.

A review of current literature regarding health administration brings out the uniform yet cross-cutting significance of health administration in different healthcare sectors. By integrating generally accepted studies from respected journals, reports, and books, this study is vital in its contribution to a deeper understanding of the role of health administrative services in healthcare efficiency and delivery and organizational effectiveness. The charts, graphs, and plots of graphs throughout the text heighten comprehension and help the readers get a clearer idea of how the management of the health care system influences outcomes in health.

## DISCUSSION

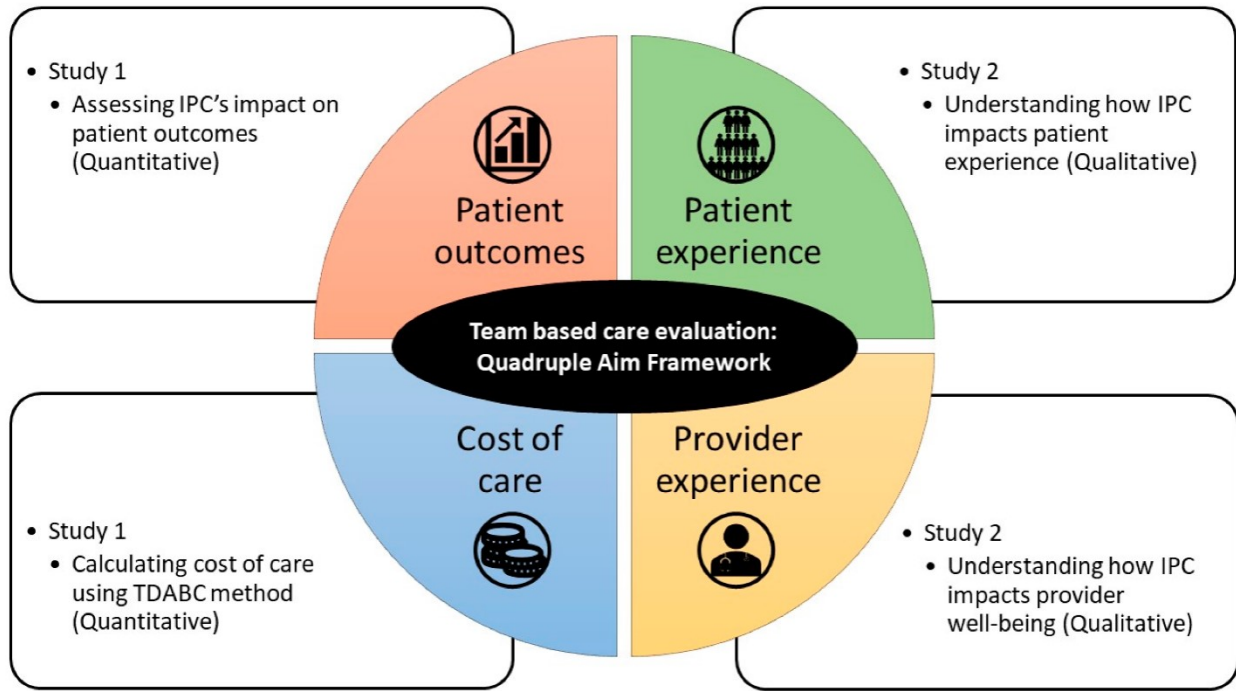
Such results demonstrate the importance of health administration in nursing, emergency care, laboratory science, and biomedical research, all of which support health care services. In a complete literacy review, several critical points affect the health authorities' way of managing care so that the health care given can impact a health facility's success. This discussion considers the significance of these observations, their general applicability for managers in healthcare, and the recommendations to improve healthcare practices.

### *Impact on Patient Care Outcomes*

The literature review summarizes management and administration's crucial roles in achieving good patient care results. Successful management strategies often come down to improving administrative procedures and allowing for a smoother flow of interdisciplinary work, which

results in a higher level of patient satisfaction, a noticeably upgraded quality of care, and a less crowded emergency department (Dowlati et.al.2021).

**Figure 3: Measuring Interprofessional Collaboration and Impact on Healthcare**



(Dowlati et.al.2021).

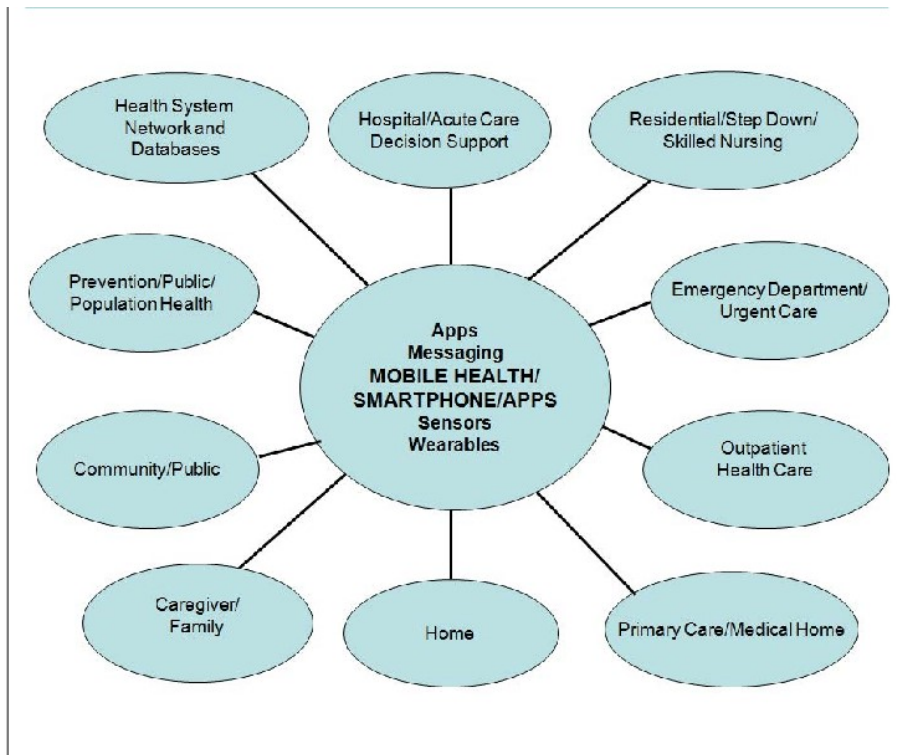
### *Relevance to Healthcare Practice*

The fact that these results are essential to the attention paid to them about healthcare practice should go without saying. Health managers are critical in determining organizational best practices, allocating budgets for resources, and implementing science-driven methods to improve patient care. Healthcare organizations can promote operational efficiency through multi-dimensional policies, including optimizing the referral system, restructuring workflow, and similar approaches. Ultimately, this will lead to improved care provided to patients.

### *Integration of Technology in Healthcare Administration*

The rising trend towards technology-driven healthcare administration has led to greater attention to incorporating technology in healthcare administration. The evolution of digital health solutions comes with the management of routine jobs, like maintaining electronic health records and telemedicine platforms that can breathe unnecessary distancing into administrative tasks and bring data analytics and collaboration among healthcare stakeholders. Utilizing advanced technological solutions helps administrative services become more efficient, giving them more adaptability in our ever-digitalized healthcare system.

**Figure 4: Integration of Information in the Technology**



(Obeta et.al.2019)

### *Addressing Healthcare Disparities and Promoting Health Equity*

It gives an idea of healthcare disparity reduction and health equity through administrative interventions, which is vital. Though it helps shape healthcare policies and distribute health resources in localities where the shortage is more significant, health management has a long road to go in reducing gaps in healthcare availability and effects on people in need. Moderators will assist in developing equitable health policies, culturally desired healthcare programs, and social network partnerships to solve the social causes of health.

### *Fostering a Culture of Collaboration and Innovation*

This example validates the critical nature of instituting a culture of collaboration and innovation within healthcare entities, thus ensuring their stable position in our society. Efficient health administration is achieved through implementing leadership principles, teamwork involving various disciplines, and the ability to improve quality across all levels of the organization. By establishing a teamwork setting that allows healthcare professionals to disseminate best practices and implement evidence-based strategies, such as simulated clinics for training new healthcare specialists, healthcare organizations can leverage their capability to tackle complex issues and facilitate desired change (Sharma & Sharma2020).

This study provided reports showing that health administration's health is undoubtedly a contributing factor to better provision of healthcare and better organizational effectiveness. Through the application of management tactics, the usage of modern technology, the processing

of health disparities, and the establishment of a culture of teamwork and innovation, healthcare organizations can devise a more streamlined system that benefits both patients and the quality of their healthcare services.

## CONCLUSION

This article will demonstrate the importance of the association between health administration and the provision of medical care to patients, with the help of nursing, emergency care, laboratory sciences, and biomedical research. With this study, therefore, there has been a greater understanding of the rationale for employing effective health management practices to achieve patient care missions and organizational effectiveness. This piece of research spots the deficiencies in memory and summarizes the results, which provide the basis for proposing ways to enhance healthcare administration in the modern system. Health administration is a multi-faceted issue that affects the quality of healthcare. Hence, strategic decision-making, creative practices, and unified cooperation are the needs of the present to ensure improved outcomes. In the future, healthcare still has a lot of work to do to make funding arrangements, technical integration, and human resource preparation that attract and retain administrative employees who will ensure the efficiency of administration, improve patients' results, and diminish health equity (Babyar, 2019). Having developed these applications, obviously, and also taking into account the results of current studies, various stakeholders will reveal how they should present a system of healthcare modification that is resilient, effective, and aimed at patients.

## RECOMMENDATION

- ✓ Advocate for human resources development for health administrators through training programs to equip them and promote their career growth.
- ✓ Run technologies simultaneously and turn them into workhorses that maximize efficiency across all organizational approaches.
- ✓ Set up a cooperative relationship with other healthcare workers to enhance coordination among the physicians, nurses, and other team members.
- ✓ Research and education programs that emphasize improving the availability of the healthcare workforce and operations management should be implemented to overcome the ensuing obstacles.

These measures, if incorporated into these healthcare organizations, will make the administration of healthcare facilities more accessible, consequently making their patient care services more acceptable to clients (Babyar, 2019).

## REFERENCE

Jeffery, Alvin D., et al. "Risk prediction and segmentation models used in the United States for assessing risk in whole populations: a critical literature review with implications for nurses' role in population health management." *JAMIA open* 2.1 (2019): 205-214. <https://academic.oup.com/jamiaopen/article-abstract/2/1/205/5273646>

Babyar, J. (2019). Laboratory science and a glimpse into the future. *International Journal of Healthcare*

*Management*.<https://www.tandfonline.com/doi/shareview/10.1080/20479700.2019.1603276>

Obeta, M. U., Maduka, K. M., Odor, I. B., & Ofojekwu, N. M. (2019). Improving quality and cost diminution in modern healthcare delivery: the role of the medical laboratory scientists in Nigeria. *International Journal of Business and Management Invention (IJBMI)*, 8(03), 08-19.[https://www.researchgate.net/profile/Obeta-Uchejeso-](https://www.researchgate.net/profile/Obeta-Uchejeso-3/publication/331466437)

[3/publication/331466437](https://www.researchgate.net/profile/Obeta-Uchejeso-3/publication/331466437) Improving Quality and Cost Diminution in Modern Healthcare Delivery The Role of The Medical Laboratory Scientists in Nigeria/[links/5c7a71f8458515831f7bc696/Improving-Quality-and-Cost-Diminution-in-Modern-Healthcare-Delivery-The-Role-of-The-Medical-Laboratory-Scientists-in-Nigeria.pdf](https://www.researchgate.net/profile/Obeta-Uchejeso-3/publication/331466437)

Dowlati, M., Seyedin, H., & Moslehi, S. (2021). Hospital preparedness measures for biological hazards: a systematic review and meta-synthesis. *Disaster medicine and public health preparedness*, 15(6), 790-803.<https://link.springer.com/article/10.1186/s12909-022-03509-1>

Brunzel, N. A. (2021). *Fundamentals of urine and body fluid analysis-e-book*. Elsevier Health Sciences.[https://books.google.com/books?hl=en&lr=&id=KItuEAAAQBAJ&oi=fnd&pg=PP1&dq=Critical+Analysis++of+the+Integral+Role+of+Health+Administration+in+Nursing,+Emergency+Ca](https://books.google.com/books?hl=en&lr=&id=KItuEAAAQBAJ&oi=fnd&pg=PP1&dq=Critical+Analysis++of+the+Integral+Role+of+Health+Administration+in+Nursing,+Emergency+Care,+Laboratory+Science,+and+Biomedical+Research&ots=2uZEcyUypb&sig=sERYPe1TSn84phHDABw08RbmGG0)  
[re,+Laboratory+Science,+and+Biomedical+Research&ots=2uZEcyUypb&sig=sERYPe1TSn84phHD](https://books.google.com/books?hl=en&lr=&id=KItuEAAAQBAJ&oi=fnd&pg=PP1&dq=Critical+Analysis++of+the+Integral+Role+of+Health+Administration+in+Nursing,+Emergency+Ca)  
[ABw08RbmGG0](https://books.google.com/books?hl=en&lr=&id=KItuEAAAQBAJ&oi=fnd&pg=PP1&dq=Critical+Analysis++of+the+Integral+Role+of+Health+Administration+in+Nursing,+Emergency+Ca)

Bolodeoku, J., Bains, S., Adegoke, O. M., Ajani, O. F., Olukewu, A. D., & Ogbeiwi, O. (2020). Evaluating Critical Care Point of Care Testing (POCT) devices and tests in Nigeria. *Biomedical Journal of Scientific & Technical Research*, 24(3), 18248-18253.[https://www.researchgate.net/profile/Osahon-](https://www.researchgate.net/profile/Osahon-Ogbeiwi/publication/338516875)

[Ogbeiwi/publication/338516875](https://www.researchgate.net/profile/Osahon-Ogbeiwi/publication/338516875) Evaluating Critical Care Point of Care Testing POCT devices and tests in in Nigeria/[links/5e18af614585159aa4c5a479/Evaluating-Critical-Care-Point-of-Care-Testing-POCT-devices-and-tests-in-in-Nigeria.pdf](https://www.researchgate.net/profile/Osahon-Ogbeiwi/publication/338516875)

Tsai, E. R., Tintu, A. N., Demirtas, D., Boucherie, R. J., de Jonge, R., & de Rijke, Y. B. (2019). A critical review of laboratory performance indicators. *Critical reviews in clinical laboratory sciences*, 56(7), 458-471.<https://www.tandfonline.com/doi/abs/10.1080/10408363.2019.1641789>

Shirazi, F. B., Moslehi, S., Rasouli, M. R., & Masoumi, G. (2022). A systematic literature review identifying the dimensions and components of simulation of the hospital emergency department during emergencies and disasters. *Medical journal of the Islamic Republic of Iran*, 36.<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9448461/>

Stephens, C. E., Halifax, E., David, D., Bui, N., Lee, S. J., Shim, J., & Ritchie, C. S. (2020). "They don't trust us": the influence of perceptions of inadequate nursing home care on

emergency department transfers and the potential role for telehealth. *Clinical nursing research*, 29(3), 157-168. <https://journals.sagepub.com/doi/abs/10.1177/1054773819835015>

Soltan, A. A., Yang, J., Pattanshetty, R., Novak, A., Yang, Y., Rohanian, O., ... & Muthusami, V. (2022). Real-world evaluation of rapid and laboratory-free COVID-19 triage for emergency care: external validation and pilot deployment of artificial intelligence driven screening. *The Lancet Digital Health*, 4(4), e266-e278. [https://www.thelancet.com/journals/landig/article/PIIS2589-7500\(21\)00272-7/fulltext](https://www.thelancet.com/journals/landig/article/PIIS2589-7500(21)00272-7/fulltext)

Onal, E. G., Knier, K., Hunt, A. W., Knudsen, J. M., Nestler, D. M., Campbell, R. L., ... & Bellamkonda, V. R. (2022). Comparison of emergency department throughput and process times between male and female patients: A retrospective cohort investigation by the Reducing Disparities Increasing Equity in Emergency Medicine Study Group. *Journal of the American College of Emergency Physicians Open*, 3(5), e12792. <https://onlinelibrary.wiley.com/doi/abs/10.1002/emp2.12792>

Kilmarx, P. H., Katz, F., Razak, M. H., Palen, J., Cheever, L. W., & Glass, R. I. (2019). The medical education partnership initiative: strengthening human resources to end AIDS and improve health in Africa. *Academic Medicine*, 94(11), 1704-1713. <https://www.tandfonline.com/doi/abs/10.1080/10408363.2022.2045250>

Etu, E. E., Monplaisir, L., Aguwa, C., Arslanturk, S., Masoud, S., Markevych, I., & Miller, J. (2022). Identifying indicators influencing emergency department performance during a medical surge: a consensus-based modified fuzzy Delphi approach. *PLoS One*, 17(4), e0265101. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0265101>

L'her, E., Geeraerts, T., Desclefs, J. P., Benhamou, D., Blanié, A., Cerf, C., ... & Mossadegh, C. (2020). Simulation-based teaching in critical care, anaesthesia and emergency medicine. *Anaesthesia Critical Care & Pain Medicine*, 39(2), 311-326. <https://www.sciencedirect.com/science/article/am/pii/S2352556820300424>

Sharma, S. K., & Sharma, N. (2020). Hospital preparedness and resilience in public health emergencies at district hospitals and community health centres. *Journal of Health Management*, 22(2), 146-156. [https://www.researchgate.net/profile/Osaro-Erharbor/publication/344408992\\_Professional\\_Autonomy\\_in\\_the\\_running\\_of\\_Medical\\_Diagnostic\\_Laboratories\\_in\\_Nigeria/links/5f726780a6fdcc008644cffa/Professional-Autonomy-in-the-running-of-Medical-Diagnostic-Laboratories-in-Nigeria.pdf](https://www.researchgate.net/profile/Osaro-Erharbor/publication/344408992_Professional_Autonomy_in_the_running_of_Medical_Diagnostic_Laboratories_in_Nigeria/links/5f726780a6fdcc008644cffa/Professional-Autonomy-in-the-running-of-Medical-Diagnostic-Laboratories-in-Nigeria.pdf)

BouzonNagem Assad, D., & Spiegel, T. (2020). Improving emergency department resource planning: a multiple case study. *Health systems*, 9(1), 2-30. <https://content.iospress.com/articles/human-antibodies/hab190367>