Review

Global healthcare: why so difficult to manage?

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Posted Date: 26 September 2023

doi: 10.20944/preprints202309.1693.v1

Keywords: Healthcare management, healthcare challenges, healthcare advancements

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Global Healthcare: Why So Difficult to Manage?

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Abstract: Management of a healthcare unit demands high prerequisites. It is a challenging organizational job for the healthcare decision-makers or leaders to tackle biomedical threats and deliver care service to huge number of affected populations in different demographic area. Health administration take innovative strategies to provide fundamental and life-saving services to the patients, when keeping the safety of the frontline medical workers is undoubtedly a priority. COVID-19 pandemic has changed the overall functioning of the healthcare system globally with alteration in the health decision-making protocols. Through this article, I have elucidated the challenges of healthcare along with today's managerial paradigms to tackle the problems and run the system in a regulated manner.

Keywords: healthcare management; healthcare challenges; healthcare advancements

Introduction

Global healthcare system is undoubtedly a very dynamic and critical system. It widely encompasses public health which is considered as a juncture between epidemiological study and the managerial discipline. Healthcare managerial principles are complex as it deals with multiple allied clinical and non-clinical industries. The management of healthcare sketchily includes dealing with people, managing resources, regulation of protocols and management of funds. Managerial proficiencies are precisely significant for the development of any organization. The primary standard crucial to be an upright healthcare manager is proactiveness along with brilliant communication skills, robust administrative power, and leadership capabilities. Use of high-end techniques and administrative competencies are vital for productive output (Munshi, 2021).

Numerous procedures have been applied to improve the capability of healthcare managers internally and managerial proficiencies are fundamental in extrapolating professional achievements of an industry (Liang *et al*., 2018). High-end leadership is the rudimentary standard to deal with the supply insufficiency and decreased popularity (which is a critical issue for concern in a healthcare unit) (Lega *et al*., 2017). Strong leadership programme should be aimed primarily, as the exponential development of the industry is dependent on critical decisions taken by capable leaders. A prime responsiveness is crucial to administer team communications between the decision-makers and external members. A stable tendency for the managers is to continue the commitments. Change-oriented actions improve obligations to a wider vision and shape partnerships. Relation-oriented activities integrate collaborative relationships to motivate staff. Task-oriented activities include proficient activities to achieve the aim (Gifford *et al*., 2018). Managers have a strategic role in policymaking, and they motivate the staff to counteract negative outcomes. Evaluation of various viewpoints and practiced idea could directly impact future healthcare strategies and decisions. Healthcare programmes should postulate high-end care and skilled managerial implementations to instigate healthcare personnel (Korlén *et al*., 2017).

In this review article, I have clarified the major challenges of global healthcare systems, along with current managerial paradigms to tackle the difficulties to run the system in a regulated manner.

Fundamental managerial necessities in a healthcare system

Building blocks of a healthcare system are leadership, management, and governance; finance; human resources; inventory; infrastructure; intelligence. Leadership is for the inclusive vision of

strategies; management is for the coordination between resources to complete that vision and governance is for transparent responsibility. Finance is about to the generation and allocation including taxation, health insurance policies. Inventories are the consumables medicines, vaccines, diagnostics etc., where demand-supply equation, budgeting, shipping, storing, and distribution are issues of importance. Accurate number of hospitals, laboratories should be well dispersed to serve different demographic population. Health infrastructure give technical assistance to run the health sectors. Health intelligence is all about taking and expending reliable data as information which will actively participate in health decision-making. Health service should be effective and easily available to patients. Considerably good number of skilled health personnel should be available. Strong health information system should be active to organize huge mass clinical and non-clinical but related data. Access to life-saving and essential medicines, vaccines, technological support, should be available. Strong health economic protocols to allocate funds are important where providing equal healthcare opportunities to all patients are important factor.

Significant skills in healthcare management include, quality evaluation, advancement of professionalism, programming-based organizational protocols, and strong leadership (Fanelli *et al*., 2020). Investigating the effect of praiseworthy management practices in infirmary implementation, in terms of clinical consequences, casualty rates, readmission frequencies and financial performances are matter of concern. Comparative evaluation of administrative practices in the public and private healthcare organizations is also imperative (Agarwal *et al*., 2016). Vital investigative managerial decisions, patient pressure and strategy-making, have cumulative effect on the recognition by health managers regarding the progress. Take-control logic, practice-based development and patient-centeredness are three dynamic subjects for the administrators (Elg *et al*., 2011). Decision-making practices are strategic and planned overtly to expand the performance by increasing employee (human resources) prosperity. These exercises do not give stable output. A part of employee advances however, the other drops. Multidimensional prosperity models are highly recommended which are competently applied by administrative practices. Work remodelling, incentives, healthy team, and safety practices often increase positive aspects of employee well-being though the leaders must be cautious to interrupt employee well-being dropping down (Grant *et al*., 2007). Managerial receptivity is very vital issue in healthcare service industries. Administrators take prompt actions in response to any issue from the employees. Improvement protocols support employees to voice, which approve managers to power their system to employ innovative ideas. Organizations take notes from mistakes, which finally helps in the performance enhancement (Adler-Milstein *et al*., 2011). The necessary managerial abilities comprehend policy progression and application, scheming human resource management, economic management, infrastructure management, risk management, quality management, supervision, information management. These aptitudes can mature management and decision-making features for global healthcare managers (Thanh *et al*., 2019). Safety and excellence are imperative property of the health system. However, usually the health management methods do not have significant positive imprint on the advantage of care. Progression with the safety and excellence development, there is a proposed SIPOKS model to subsidise error information in the system. It also a stimulating policy for the flawless strategies. The fundamental concepts of system theory and system flow model which can be practical to several layers of health systems (Chuang and Inder, 2009). Care management has two projecting models: The Chronic Care Model and the Care Transitions Program. A low communication occurrence between the patients and care managers labels extra support. Decision-makers should explain phases of desired care management, ends in a cost-efficient method with suitable training and action protocols (Wells *et al*., 2019). It is obvious that an interdisciplinary emphasis rather than a mono-dimensional consideration on supply chain management interests in healthcare facilities acts to be necessary. Ethics of lean manufacturing can be modified and initiated to health processes. Leadership in the function of lean healthcare systems is critical. A thorough understanding of the proper skills for functioning of a lean healthcare system is efficient. Healthcare managers play a very thoughtful part to decide how to appoint somebody as a central part of lean policies to healthcare system (Parkhi, 2019).

 doi:10.20944/preprints202309.1693.v1

The concept of clinical management does not distinguish between management, care, education or knowledge. The basic principles of clinical management are excellence and security. Legalization of various health practices and knowledge to combat health threats. Distribution of power between administrators, health workers and people. shaping people and organizations; focusing on outcomes that improve public health; Responsibility for the common good. It is concluded that the principles of clinical management inherently embrace health and education (knowledge) in a unified health care system that emphasizes benefits. The nature of global health includes biomedical, psychosocial and cultural perspectives. Integrity of care plays a major role in the operation of health care institutions. Ever-evolving quality (excellence) and extreme safety benefits come from reducing risks of care, reducing harm rates to the lowest levels, and reducing adaptability and diversity of clinical decisions. Advances in care are aimed at health requirements and multi-professional collaboration with an interdisciplinary approach, tailored to the complex profile of a range of problems. Dissemination of educational and institutional aspects contributes to the knowledge and qualifications of health professionals. The health care decision-making process, which incorporates expert opinion, includes management protocols and emphasizes responsibilities in some situations. The health system accountability statement is concerned with promoting inclusive care in line with the common good. Adding and communicating data to share decisions. An organization of collaborative work expressed between relevant actors and institutions. Encourage them to contribute to and inspire professional independence and innovation in mutual care planning. Collaboration on various forms of knowledge. Health threats and challenges activate learning, ethics, demands and interests. Insightful discourse between clinical management activity and reliability data enables new information. Using failures and successes as an aid to improve performance. The initiation and dissemination of knowledge on health production aims to enhance innovation and enhance access to novelty. Using principles to improve care effectiveness using a set of indicators aimed at healthy lifestyle campaigns to reduce avoidable resource practices. Clear data and communication with residents are important for decision-making (Padilha *et al*., 2018). The health sector includes health care systems and is often internationally recognized for its complexity and socio-political scope. In fact, these are considered the most difficult management methods. Researchers and policy makers are motivated to integrate new innovations related to new simulation, modelling and complexity theory (Long *et al*., 2018).

Overview of the challenges, faced by the healthcare management system

Primarily there are three major issues which are highly challenging to tackle. The finance or health economics; delivering a best and fast healthcare service; and safety. Nations with high medical facilities, have invested a good GDP percentage for the maintenance of the health system with high-end service which help in the perfect regulation of the healthcare sectors. A change in the global economy may directly affect the healthcare industry of any country. It is a real brainstorming job to deliver best quality healthcare service to several people in an economically affordable price. Mass clinical data plays an extremely crucial role in today's health world in making the strategies. Proper cloud security is important to preserve the data, which should not go into the hands wrong people who might misuse the data. Political challenge; demographic challenge (due to increase in the population); epidemiological challenge (due to alterations in the epidemiology of diseases); customer expectations challenge (due to the recent advancement in the healthcare technologies), technological challenge (due to the inventions of new technical methods); workforce challenge are additional challenges in the system.

Knebel and Greiner, (2003) elucidated the challenges of a healthcare which depicted, out-of-date healthcare scheming which have the consequences of erroneous, bad quality care service, and dissatisfaction in patients as well as healthcare professionals. Also, insufficient essential medical prerequisites for patients are being satisfactorily met. Concentrating on those basics is very vital for the improvement of care system and development of coordinated teamwork among respective health specialists. Scientific expansions in terms of information technology can benefit to increase therapeutic practices which can possibly improve healthcare units in global perspectives. It is fundamental to build an association between patients and healthcare experts to apply a right decision-making. Global financial adversity affects the healthcare sectors, allied pharmaceutical

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industries, health insurance policy providers and ultimately the patients. Economic crisis straightforwardly disturbs healthcare by increasing costs of healthcare services, which in turn upsurge service disparities due to socioeconomic position. Increasing in the health cost in declines patients from taking routine health check-ups in hospitals. Policymakers operate operational dimensions to afford cost-effective and good quality health service to the population (Nuti and Vinieri, 2014).

Advanced applications in a healthcare system for proper functioning and tackling challenges

Smart healthcare is a novel concept in the healthcare paradigm, which is broadly encompasses several concepts of medical informatics, excellent communication system, electronics, bioengineering, etc. (Solanas *et al*., 2017). Smart healthcare system has been efficiently effective in tackling the critical challenges in a healthcare industry. In fact, the combat with COVID-19 has been able by smart healthcare techniques.

In today's world of healthcare, integration of several contemporary interdisciplinary concepts is being effective to run the system in a smooth manner. Investigation of Knowledge Management (KM) could rearrange the competence quotient and orchestrate the usage of resources in a healthier way (Karamitri *et al*., 2015). Healthcare segment allows prospect to incorporate KM practices for the fast and significant improvement. However, KM is a multifaceted procedure in healthcare which applies knowledge acquisition, delivery and function or implementation. KM must be planned that certifies speedy identification and distribution of pertinent knowledge to applicable agents where collection of visions should be fortified. These theories reflect technological development in healthcare (Bordoloi and Islam, 2012). KM is a very major issue for decision-maker's viewpoint. Relevant case studies are being considered to utilise knowledge in the form of information. During precarious decision-making stages clinicians employs information according to the need. Resources of knowledge and intelligence in the healthcare systems could have effect on thoughtful understanding of the value establishment in the organizations. Addition to the process of knowledge resources, it's evolution largely embraces on explaining difficulties with exact technical support. Knowledge managing and information systems allows critical support structure for the development of a healthcare system (Myllärniemi *et al*., 2012). Decision-making by applying KM in healthcare system is very up to date. For this purpose, usage of suitable methods and manageable system is a required. It can considerably develop the excellence and safety of healthcare to the patients in hospitals and home. Evidence-based medical exercise is necessary globally to provide best medical treatment to patients is the way. KM plays a crucial role in this issue. It is highly recommended to take the advancements in terms of clinical decision and electronic health record systems (Shahmoradi *et al*., 2017).

Health sectors have both clinical and non-clinical administrative records, both of which make mass data in the healthcare industry. Implementation of recent technological advancement has changed the industry in terms of betterment and has elucidated improvements in the health sector. Electronic health records have generated massive medical data throughout the world. Alike other industries, effective usage of artificial intelligence (AI) has impacted the healthcare industry in a very progressive route. Also, sensors are important applications such as ecological monitoring, transportation, and has huge implementation in healthcare medical device's function ability. Advanced technical application for several highly important clinical devices and instruments are an integral part of the biomedical system, which can generate and store clinical data from patients. In addition, the updated huge database has been proved to be an effective tool for clinical decision-making It is thought-provoking to investigate the big data to develop imperative information. Planned Meta Cloud-Redirection (MC-R) scheme with big data system is active to accumulate sensor data (big data) from several sensor devices (Manogaran *et al*., 2017). Big Data Analytics (BDA) is performing a critical role in healthcare management. Managers of the system are recruiting experts

from data science background to organise mass medical-related data. BDA as an operative tool in health sectors, analyse huge population-based mass data or epidemiological data to implement it for the better improvement in managing healthcare systems (Galetsi *et al*., 2020). It can significantly improve functional efficacy, though predictions and systematic designing to epidemic and pandemic threats to the society. It also imperative to run the system in a better way to provide better quality of clinical practices and deploy the health finances effectively (Nambiar *et al*., 2013). Big Data and Predictive Analytics (BDPA) in achieving business significance is extremely acknowledged by the researchers (Gunasekaran *et al*., 2017). Technology Acceptance Model (TAM) is implemented to grow health informatics. In the succeeding time there are forecasts to use more TAM for better health organizations. Use of telemedicine is an instance of TAM which has exponentially grown fully-fledged in the past years (Rahimi *et al*., 2018).

Business Intelligence (BI) has been used to organize these medical data for the improvement in clinical or health management. BI has become an indispensable tool to support organizations in enhancing its efficacy in handling information which ultimately helps in decision-making. BI maturity models are capable to cognise complicated business management strategies in several industries, which happens due to intricate rules and regulations, stakeholder associations and external necessities. It has direct implementation in health industry by assessing the key complications in health sectors with gap analysis (Brooks *et al*., 2015).

The impact of the stakeholders on creating supply chain management and connections among numerous healthcare service associates is important. It is significant how the investors contemplate throughout the procedure of determining and employing the supply chain management networks. The positive and negative edges of the management ethics and business management practices are vital. Many of these viewpoints are often recycled together with supply chain management practices. Function of supply chain management protocols to patients is a very important issue of concern (De Vries and Huijsman, 2011). Healthcare industry is regularly accepting innovative practices and skills to provide high- end clinical provision to the patients. The application of Radio Frequency Identification (RFID) technology has distinguished impacts on different industries which has raised the distribution of care delivery in health systems. This routine technical protocol can track medical properties and can unite with the medical devices, medicines, IT gears, patients, arrayed in the health units globally (Abugabah *et al*., 2020). Application of blockchain technology in healthcare has a significantly distinguished influence. Bibliometric evaluation of dataset allocation, sites, keywords, and references are focused to classify the shape of blockchain methodology in healthcare. E-health, telecare, health record, clinical trials, pharmaceutical data, big data, AI, 5G ultrasonic devices, and security-privacy are combined with blockchain technology (Hussien *et al*., 2021). Counteracting with the challenges in the healthcare units, application of the practical and technological progression is the prime necessary. Vital developments in the healthcare system can arise with health insurance structures with varied target people however, economically maintainable schemes are complicated to apply (as many stakeholders may not approve it). (Bazyar *et al*., 2020). Decision-makers in the health areas should contemplate the differences which occur in health insurance programmes and should focus on providing fundamental and life-saving care service to all kinds of patient despite of their socioeconomic background.

Overview of COVID-19 pandemic induced healthcare reforms for the future

The pandemic has formed a mass challenge for international healthcare industry. It has become a universal hazard to the human population that has persuaded researchers, policymakers, and governments simultaneously to confront several scales of threat which principally challenged the global healthcare management system (Lambert *et al*., 2020).

Due to COVID-19 pandemic situation and several complications to reach the hospitals, use of digital platforms has gained acceleration. Doctors and the patients got used to with telehealth tools technology or telemedicine. Digital technologies have made the process of clinical appointment booking, maintaining medical records after doing medical examinations, and cashless payment process are helping the patients more. Clinicians are pointing to achieve a better global healthcare system, even throughout the financial catastrophe. Healthcare management is increasingly

 doi:10.20944/preprints202309.1693.v1

employing structures of Business Process Management (BPM) to increase managerial performance and efficiency of the staffs in the industry (Buttigieg *et al.,* 2016).

Being an extremely eventful industry, the healthcare system is always on adapting new advancements and face several tricky challenges. Progressive healthcare facilities have several prospects but encounters difficulties. Broadly, the prospects include declining differences among virtual and physical treatments; positive fast and smart responses to emergency circumstances; derestricting strategies in respect of telemedicine consultancy; determining a real-time patient information sharing; augmenting digital competence; uplifting professional exercise for digital (virtual, contactless) healthcare services. The challenges encompass endorsing accessibility to patient information; protocol active for digital healthcare services; rules and ethics for contactless healthcare services; conventions for growth of international healthcare services; procedures for useful decision-making to deal with diseases; elevations for social accountability in terms of health (Lee and Lee, 2021).

The European Union has implemented numerous practical policies to fight COVID-19. The states have enhanced the gaining of personal protective equipment, and necessary clinical fundamental, life-saving infrastructure. Basic funds have been distributed for research and development for operative clinical therapies. Additional care to support frontline medical staffs with proper safety has been taken care off. Difficulties of adversities has led the global healthcare leaders and the governments along with the corporate stakeholders took interdisciplinary effective decisions (Goniewicz *et al*., 2020).

The pandemic highlighted the feebleness of the research and development systems in world-wide perspective, and imbalance in the fund allocation in research and development sectors, which is a direct flaw of the healthcare system. Nakatani *et al*., (2020), proposed a novel economic model to alleviate the research and development sectors even if there is a significant market failure. They have specified the alliance between government, industry, and several charitable organizations. Another model has been proposed by Smith *et al*., (2021), where they have projected a global health ground to explain its possible efficiency by pre-investigating international assistance, pharmaceutical production, scientific research. Urban healthcare plans were extremely significant during COVID-19 pandemic in respect to public health and built environment. Planning must include flexible, smart, and supportable locomotor actions; suitable neighbourhood facilities; improvement of urban digitisation, planned and flexible indoor living areas with basic healthcare and emergencies. Awareness of stakeholders on the on public health in the cities are vital (Capolongo *et al*., 2020).

Healthcare sectors are multidimensional. In fact, health management is undoubtedly the most complex among all other industries, as it must deal with clinical and as well as allied non-clinical allied partners, where maintaining a balance between them is extremely crucial. The government and the health policymakers make practical implementable strategies to serve the population. In fact, care delivery is a very critical issue as it deals with the life of the patients. For this reason, the health industry is a more complex sector, where economic management, resources management, balance between demand-supply, employee management and safety management are extremely important in terms of maintaining a smooth care system with proper ethical policies. A health system consists of both clinical professionals, who deals with the clinical understanding and medical procedures in a hospital. The non-clinical professionals are the support system to run a hospital management.

COVID-19 is a very recent prominent instances which created several managerial and biomedical challenges for the global health industry. The most devastating issue regarding is COVID-19 primarily was the extreme high infection rate which could lead to the death. The infection was new to the world, so it was critical for the medical practitioners to have medical decisions for it. There were no medications and vaccines in the beginning. Life support system was necessary for huge number of patients. In this critical situation medical professionals were working in the frontline and the health managerial system was working to support the medical staff as well a huge number of the population which were infected and needed fundamental and, in some cases, life-saving support. Innovative strategies were taken by the decision-makers of the health sectors to manage the interventions and infrastructure during this critical time. Adjustment with the tremendous economic

turbulence was also managed by the decision-makers with help from the experts like health economists. Places where population is significantly with and have considerably a smaller number of hospitals have faced serious troubles during this pandemic. The strategy-makers in those areas had to go for more critical situations as few numbers of hospitals with limited infrastructures had to serve many patients.

Numerous critical challenges are there in a healthcare industry. COVID-19 exposure has magnified the challenges in the system and in turn has created new innovations in the system of hospital management system to tackle this kind of unprecedented biomedical threat. Pandemic like COVID-19 and its huge negative impact on the human population has opened a new chapter for the hospital management protocols. In fact, prompt decision-making and quick implementation of new strategies with a remodeling of the existing managerial and care delivery protocol has been the major part tackling the COVID-19 challenges.

It is expected that in the post-COVID-19 era, novel healthcare practices will come in the organization. Some progressive innovative and applicable contactless healthcare practices were followed during the pandemic. After COVID-19 period there will be new-fangled contests and visions for the healthcare units, decision-makers (Lee and Lee, 2021).

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