

Research Article

The Essence of Reflections and Perspectives of Effective Leadership and Resilience within Health Systems during the SARS-CoV-2/COVID-19 Pandemic

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Abstract

Globally, leaders reacted to the SARS-CoV-2/COVID-19 pandemic by initially transitioning from containment approaches to amelioration, with a focus on accelerated scaling up of healthcare capacity, employing digital technology, and fortifying supply chains. Local and global health systems became increasingly resilient by inculcating shock absorption, conditioning to accelerate altering states, and modifying their modalities to sustain pertinent services. The SARS-CoV-2/COVID-19 pandemic presented as a principal stress format for worldwide health systems, subjecting them to take up, modify, and evolve for the sustenance of unexpected, accelerated, and sustained distortions. These constitute a strategic framework to manage change, as organizations initially adopt tested frameworks or baseline apparatus, adapt same to comply with specific requirements, and consequently alter strategies for long-range growth and resilience. This mechanism extends greater than mere compliance to enhance incessant advancement and newfangled measures. Health system resilience is defined as the potential to manage and be educated from shocks induced by pivotal reactions, as well as the accelerated application of telemedicine, the development of transient surge prowess, and prompt health workforce mobilization. The responsibility of the leader of a healthcare organization involves charting a novel strategic goal, vision, and mission, high-level operation monitoring and evaluation, ameliorating pecuniary risks, and broadening overall organizational growth. The essence of healthcare resilience is to influence members to develop and inculcate behaviours, idiosyncrasies, processes, and technologies that occur in sustainable arenas to exchange care. Local and global health infrastructures need to be improved for better and optimum response to future pandemics by focusing on recruitment, training, and prioritising healthcare workers, effective establishment of surveillance and response systems, confidence building in health services via community health, inclusivity of SARS-CoV-2/COVID-19 vaccines in conventional immunization packages, as well as empowerment and strengthening of logistics and supply. Therefore, the leadership role in healthcare must inculcate staff support, forthrightness, empathy, altruism, accountability, and sustainability. Leadership is pertinent to ensure traditions, cultures, and values that are not embellished with target setting, status hierarchies, rules, and regulations. SARS-CoV-2/COVID-19 presumably had a positive impact during the pandemic due to a decrease in expenditure, an increase in savings, as depicted in spending more time with family and spending less money on entertainment. Better life appreciation, survival through difficulties, and gratitude for the importance of life. Literature in health systems resilience emphasises that focus should not merely be on absorbing unprecedented and unpredictable shocks due to the emergence of health needs, but ensuring continuity in health progress, sustainable benefits in the functioning of health and healthcare systems, and fostering quality of life. Since SARS-CoV-2/COVID-19 globally overwhelmed health systems, discourse and polemics on resilience have created a sense of expansive urgency, with pertinence to explicate the ingredients of local and global responses by means of a lens of resilience.

More Information

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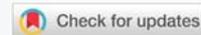
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Introduction

The COVID-19 pandemic behaved as an unprecedented stress test on global health systems, unravelling the rigidity of conventional, top-down structures, prioritising a shift towards a leadership laden with complexity and adaptiveness. The crisis depicted that resilience does not merely concern shock survival but the potential and capability anticipation, absorption, adaptation, and recovery. Pivotal challenges focused on meandering extreme unpredictability, management of disruptive, isolated, and restricted information, and accountability maintenance irrespective of flexible procurement regulations and expansive pressure [1, 2]. Healthcare systems confront increased systemic risk as a result of the ingrained uncertainty and complexity of their modalities, which frequently culminate in stress-laden events affecting the welfare and well-being of healthcare personnel. These are capable of compromising the efficacy and effectiveness of healthcare systems. Resilience enhancement among healthcare personnel is crucial for the maintenance of high-quality care and patient safety assurance [3]. The COVID-19 pandemic indicated the necessity for leadership and leadership development as highly significant and critical [2]. Since the inception of the pandemic, institutions have taken into cognizance the relevance of resilience processes, with efforts to prepare them against crises in the future. COVID-19 has significantly impacted the manner in which organisations function and relate to recent incidents, which need to be explicated [4]. In global healthcare delivery, the COVID-19 pandemic presented extreme challenges requiring vital approaches for response to a resilient health system. The background resilience is commonly referred to in the assessment of the potential and maintenance of health systems functionalities during unprecedented occurrences. Primary healthcare [5] constitutes the primordial health system, and indubitably, its resilient responses are of importance to the outcomes of the entire system. Elucidating how primary healthcare institutions can develop resilience prior to, during, and following unpredictable shocks is pivotal to public health readiness. This work inter alia attempts to establish how leaders' health systems interpret alterations in their operational environment during the era of COVID-19, and elucidation of reflections and perspectives [6] of resilience on healthcare [7]. This work exemplifies challenges and lacunae in scientific literature in the spheres of organisational resilience contextually inter alia SARS-CoV-2/COVID-19 pandemic era.

Resilience enhancement in health systems during the crisis of the SARS-CoV-2/COVID-19 pandemic

The COVID-19 pandemic outbreak was an era of unpredictability and unprecedented dilemma and stress for health and healthcare managership due to paucity of information and knowledge of the aetiology, pathogenesis, and pathophysiology [8-10], including deficiency of organised structures and therapeutic modalities. That was an era devoid

of the sustainable potential to weather a global healthcare crisis, while adapting to the extant health status, to extract didactic lessons from the prevailing conditions, which constitute vital significance for operative units [11] for emergency care. Globally, the SARS-CoV-2/COVID-19 pandemic unpredictably and unprecedentedly unleashed a sustained impact on health and healthcare systems, not merely due to the encumbered pressures from the pandemic, but to its emergence and adaptation to the perceptibly ever-changing and never-ending issues to be addressed in the future. There were rapid transformations in clinical practice, new care models, focused resources, and newfangled strategies were implemented at an accelerated pace to undergird the increasing number of infected patients and alternative modalities of care delivery and vaccinations. As a result of globalisation, resilience became more relevant than previously due to increased and intensified shocks on the health system and enhanced impacts [12]. The resilience of the health system is a composite collective effort, resulting from incessant pursuit and targeted investments of concerned stakeholders. The investments unravel challenges, opportunities, and priorities for innovative resolutions, solutions, and sustain the accountability of actors in the global health system. Experiences and perspectives highlight the crucial role of organisations in the development of resilient health systems. Contextually, strengthening governance, a bi-directional information exchange, and focused science leverage for effect can attract enhanced potential of resilience in health systems. Specifically, governments and diverse organisations present spheres of contribution in the trajectory towards resilience and carry the societal responsibility for the prioritisation of enhanced attributes of resilience. The building of resilience will not merely accord countries preparedness for future shocks but connect diverse health and development agendas for better positioning of the nexus between humanitarian aid, development cooperation, geopolitical accountability [13], and drive advancements to face COVID-19 or other emerging or re-emerging pandemics in the future. In the initial pandemic wave, there were disparate adaptations towards an identical agenda to undergird the health and healthcare system to respond locally and globally, with select staff redeployment and engagement on COVID-19 response programmes.

Effective leadership impact on health and healthcare during the COVID19 pandemic

The aetiologies of change in healthcare are due to technological progress, ageing and vulnerable populations, alterations in disease patterns, trajectories and novel drug deliveries, targets and discoveries for disease therapy, which necessitate healthcare personnel to modify frequently [14]. The strategy that ensures healthcare leaders comprehend the specific needs of patients constitutes an adaptive leadership philosophy essential to improve patient outcomes and staff well-being, as well as enhance a resilient healthcare environment. Healthcare leaders can employ their



management skills for the promotion and improvements health and healthcare literacy within personnel and patients through fostering patient-focused care, a continuous education milieu, and overt communication. Effective leadership in healthcare impacts the efficacy, efficiency and effectiveness of healthcare delivery, patient engagement, welfare, quality of life and the well-being, job satisfaction and retention of healthcare personnel; thus, aiding healthcare through studies which translate the trajectory of information and knowledge to practice for the future in the healthcare industry shifting from fragmented, infrastructural and pecuniary decadence, especially in vulnerable and low income societies. Effective healthcare leadership is essential for ensuring high-quality patient care, enhancing organizational performance, and fostering the professional development of healthcare professionals [15]. Effective leadership in healthcare impacts the efficiency and effectiveness of healthcare delivery, patient interaction, the welfare/well-being, job satisfaction, and retention of healthcare personnel. In addition, effective leadership enhances the future of healthcare through research as knowledge is translated into practice.

The essence of ethical leadership, leadership development, and maintenance of ethical behavior demands institutionalisation of pellucid and defined standards as well as expectations for personnel. Leaders must ensure organizational awareness of the sustainable mission, vision, values, and goals by focusing on clear standards that place all and sundry on the same ethical trajectory and platform, which ensures conducting functions with adroit administrative corporate responsibility and humane integrity [16]. The leadership strategy inculcates steadfastness in serving the needs of employees based on a servant-leadership moral-based platform whereby leaders prioritise the fulfillment of the needs of employees, patients, and other stakeholders, rather than their personal needs and satisfaction. The trait theory of leadership emphasises the identification of discrete traits which make a leader effective, and defines or translates aspects of inborn or innate qualities and characteristics which enhance the potential for leadership qualities imbibed from inter alia intelligence, personality, and physical attributes.

Governance and national responsibilities during the pandemic

The COVID-19 pandemic presented a global crisis that manifested differently across scales, triggering multiple interrelated crises, including economic and social disruptions. The impact of the pandemic has necessitated a re-evaluation of leadership practices, prompting leaders to reflect critically on how to navigate a future pandemic. This is depicted by equity, sustainability, and democracy within regional governance structures through the utilisation of a framework developed from extant literature and practical experience during the COVID-19 pandemic [17]. It is paramount to research how healthcare organizations create, maintain, and advance

resilience within never-ending distortions and disruptions such as pandemics, regulatory transformations, and resource deficiencies. Application of dynamic capabilities theory (DCT) for explicating or elucidating the processes that potentiate institutions to sustainably endure essential services in the complexity of resource-deprived ambients may be crucial [18]. Organizations that enact and maintain essential services amidst crises foster public trust and engagement while protecting susceptible and low-income populations.

The capability of a country to cope with a crisis correlates with its resilience level. Although there are efforts to explicate the concept of health system resilience, the study of its operationalisation is grossly neglected, as evidenced in the SARS-CoV-2/COVID-19 era [19]. In-depth contextual analysis for optimal identification of an enabling environment and the required capability to develop a certain level of resilience are required for the transformation into practice of the expertise for the enactment and development of a resilient healthcare system [19]. Research on the health system responses to the SARS-CoV-2/COVID-19 pandemic offers the latitude to improve local and global elucidation of health system resilience and create a more transparent association between practical ideas and theoretical concepts on the development of resilience [20].

The most veritable enhancer of health system functionality is governance that provides the basis and leverage for resource production, finance, and service delivery with assurance of sustainable operation in coordination with other spheres of the health system. Before the COVID-19 pandemic, it was clear that good governance supported and was strengthened by means of state prowess, political leadership, and community involvement to a resilient response in the outbreak of a novel COVID-19 infectious disease [21]. Thus, governance continues to be a key attribute for an effective response to the COVID-19 pandemic. Governance effectivity and efficacy at multifarious stages, such as the entire health system functionalities, encompassing beyond the health system, fulfill a resilient response and buffer against ineffective political leadership. Whereas transformations in crisis governance are achievable in the pandemic, these cannot be enacted or enforced within a vacuum, and must take into cognizance extant issues, challenges, opportunities, and priorities, in the face of formal and informal power structures.

Nascent adaptive strategies to governance appeared during the pandemic, involving increased participation at all levels in response to the pandemic, supporting the machinery of government and governance [21-23]. The resilience concept was adapted to the public health discipline to research the health systems' resultant impact due to health crises, the conditions that ameliorated the thrust, and the reorganisation following the capitulation of the crisis. Following the inception of the COVID-19 infection, the COVID-19 pandemic due to the SARS-CoV-2 virus constituted a worldwide challenge in



2020 that demanded prompt action to an unprecedented health crisis in the annals of modern civilization, especially in Western countries [24-27]. Certain researchers believed that the intensity of the crisis in countries with inequitable distribution of resources suffered mostly regarding emergency services, and health personnel experiences at every sphere of medical care during the scourge [27], which necessitated proper governance and national responsibilities during the SARS-CoV-2/COVID-19 pandemic.

The functionalities of hospitals and nursing homes during the crisis

The COVID-19 pandemic ushered in a global crisis for healthcare systems, particularly hospitals and intensive care units, with nursing homes and homecare services responsible for the elderly and extremely vulnerable group of patients had to adapt and transform for the safety of patients and personnel, whereby leaders introduced newfangled solutions to be resilient in tackling the COVID-19 pandemic [28] in maintaining proper care for patients under surveillance. The analysis of hospital resilience is essential in understanding health services' preparedness for, and response to, abrupt shocks and unprecedented challenges in the COVID-19 health crisis, and in the context of the SARS-CoV-2/COVID-19 pandemic era. The major theoretical strategy based on resilience is the capacity of the system to sustain pertinent functions and to absorb, adapt, and transform during unprecedented or unexpected alterations [29].

The COVID-19 pandemic created significant challenges for healthcare professionals and the provision of hospital care, leading to immense stress and rapidly changing conditions. Hospitals had to constantly adapt their organizational structures and strategies to manage the crisis [27]. Concomitant centralized and decentralized aspects of decision-making are effective, with organizational adaptation and learning during crisis being of immense importance in resilience theory. The COVID-19 pandemic enormously affected healthcare systems worldwide, which culminated in several healthcare studies. Nursing homes and homecare services were custodians of vulnerable groups of people, and heavily impacted by the pandemic. Managers in nursing homes and home care services employed disparate approaches to tackle the COVID-19 pandemic [28]. Hospitals usually function in intricately complex and dynamically unpredictable environments. Understanding how hospitals confronted such uncertainty during the COVID-19 crisis inculcated human and material resources, planning, reorganization, and decision-making [29]. It is pertinent that hospitals offer flexibility without suppressing efficiency through enabling opportunities and priorities for better preparedness and response to environmental alterations, challenges, and issues. Modification of capabilities grants organizations more resilience and responsiveness during incessant and extant uncertainty.

Discussion

This article explores the interplay between public administration and community resilience during the COVID-19 pandemic era, concerning the studies conducted, nascent topics in resilience research, and inculcated lessons [30] for the future. Strengthening public administration [5] promotes community resilience, but restricted access to public services elevates vulnerability, especially in low-income societies presenting inequitable distribution of resources, and a debilitated mindset and social conflict for resilience, necessitating trajectories for opportunities and priorities in social relationships, wellbeing, and sustainability in quality of life. Leadership role in times of crisis has intensively drawn attention, but the resultant impact of crisis leadership on ameliorating supply chain distortions within the healthcare sector has been elusive in research. It became necessary to bridge the lacuna of the theory in supply chain leadership [31] by applying an inductive strategy in developing a crisis leadership theory on ameliorating supply chain disruptions in the healthcare system in navigating issues and challenges presented during the COVID-19 pandemic era.

Managing numerous uncertainties broadly depends on the quality of the trajectory of decision-makers at all stages and administrative levels, wherein management of COVID-19 in a contextually precarious healthcare system became diverted to awareness-raising and a surveillance system, to build a resilient healthcare system in leadership ability, community dynamism, and extant culture of learning [19]. Decision-making, trust, interdependence, and modifications become important in monitoring risks and repercussions of alterations beyond the health system, such as inclusivity and trans-sectoral resilience, and private sector alliances were identifiable factors from the COVID-19 pandemic for future exploration. The COVID-19 pandemic exerted immense pressure on healthcare systems by depicting the relevance of intensive contextual analysis for better identification of an enabling environment and the propensities for development to determine the resistance level, with translation into practice of the expertise to enact a resilient healthcare system for the future [32-34].

Processes for assurance of local and national collaboration for effective shock response and advanced preparedness for future emergencies, particularly infectious disease outbreaks that disseminate through community transmission and necessitate sensitive responses, and inculcated as a dual measure for improved pandemic response and health services [35-37]. With the evolution of health governance, local and national collaboration must be ardently established into crisis management and responses as well as governance and resilience trajectories [38]. The lesson and expertise exhibited represent strengthening pertinent functionalities of health systems and the trajectories for positively addressing the increasing intricacies and complexities of health issues,



challenges, opportunities, and priorities of the future [41, 42]. Adequate strengthening of pertinent functionalities in health systems inculcates improvement of primordial structures, such as service delivery, health staff, information systems, medicines, technologies, financing, and leadership for enhanced resilience and efficiency. This strategy proportionally highlights the progressive complexities of future health challenges, issues, opportunities, and priorities concerning pandemics, ageing populations, and economic burden [43-45].

Reflections and perspectives on resilience modalities

This study explores timely and complex issues of the multidimensional spheres of leadership, communication, accountability, and resilience in health systems during the SARS-CoV-2/COVID-19 pandemic and for the future. The COVID-19 crisis has exposed paramount vulnerabilities in global health systems, whereby explicating, elucidating, and understanding the confounding factors via the lenses of resilience and leadership are of immense pertinence for contemporaneous sustainability measures and preparedness for the future. The article relates the transition of health and healthcare systems per resilience during the COVID-19 pandemic era [46] with emphasis on the roles of leadership, communication, and accountability; and a strategic framework encompassing incipient fundamental building blocks, streamlined adaptations, and extended growth modalities to promote resilience of health systems. This conceptual work relates that resilience extends beyond mere shock absorption to imbibe proactive expectations and adaptations, with focused leadership functionality in the mechanisms as proposed. Overall, the presentation highlights clinical practice transformation in hospitals and nursing homes, the relevance of impactful communication, and the prerequisites for governance structures that engender resilience.

This article offers a robust theoretical framework for conceptual resilience in health systems, undergirding an overall delivery of leadership dynamics. The conceptual discourse provides novel insights into the strategic functions of leaders in treading and ameliorating pandemic-propelled crises, focusing on both local and global perspectives, which expatriates the pertinence of the topic across disparate healthcare contexts. This paper invites significant interdisciplinary inquiry, particularly around the integration of health policy and leadership theory within resilience frameworks. It raises important ethical questions regarding equity and accessibility in global health systems, especially as they relate to the differential impact of pandemics on vulnerable populations. Furthermore, as health systems continue to evolve post-COVID-19, the insights from this study could contribute to the ongoing dialogue on long-term health system transformation and resilience building. Overall, the study contributes immensely to understanding the intricately complex interplay between leadership and resilience in health

systems during the COVID-19 pandemic era. It highlights both a theoretical exploration and practical implications that are relevant for extant and future health crises. In tackling the methodological disruptions and distortions as well as expatriating on the scalability of its intentions, the presentation significantly advances the discourse on health system resilience in academia, policy-making, and public administrative spheres [5]. In essence, the article ignites insightful dialogue on the reconceptualization of health and healthcare systems as evident in current global issues, challenges, opportunities, and priorities, unravelling extant vulnerabilities, optimistic adaptive possibilities in leadership and governance resilience [47] in the scourge of any pandemic or crisis in the future.

Conclusion

This work attempts to present a succinct new understanding of the impact of crisis-induced innovation for resilience in health and healthcare during the COVID-19 pandemic era. Leaders of health and healthcare implemented, monitored, and evaluated diverse innovative strategies for leadership, communication, and accountability for adequate resilience during the pandemic. Within the context of resilience, disparate innovative solutions can be based on impacts on situational, structural, and systemic resilience, necessitating frameworks for harnessing newfangled solutions and the effect on resilience in health and healthcare. Although there was an accelerated leadership response to the pandemic, the overall crisis management was broadly tailored by the directives of governments. In conclusion, future research in leadership and crisis leadership competence mechanisms through training and change is pertinent for the potential of leadership development intervention and creativity to advance health system resilience.

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