

Management And Administration: Comprehensive Review of Governance Models and Organizational Adaptability in Health Systems

Ali Hussain Mohammed Alshareef¹, Khaled Hadi Alabbas², Saleh Ahmed Ali Al-Daghrrir³, Ali Alhassan Ali Alshareef⁴, Naji Saud Naji Alsharif⁵, Ibrahim Abdullah Alsharief⁶, Abdullah Hassan Alshrief⁷, Hussain Yahya Obud Alsharif⁸, Mahdi Hussein Mesfar Al faran⁹, Ali Abdullah Abdulwahab Alshareef¹⁰

Abstract

Healthcare systems and organizational change, together with governance models, remain vital to understanding the stability of health systems. This review further looks into the various forms of governance in the healthcare systems in different countries across the globe, with the effects of these governance models on the system's performance examined. Lastly, organizational flexibility is also considered when availing health systems for emerging health challenges. Discussing centralized, decentralized, and hybrid governance models, the paper evaluates the strengths and weaknesses of the corresponding approach. Furthermore, it also points out the chief trends of the evolving healthcare system and the emergence of a more adaptable and responsive culture, particularly in the era that has experienced pandemics. The review also discusses the opportunities for technology use, public-private partnerships, and workforce training to enhance the organization's resilience to health systems. Implications of the present study are that good governance, combined with a well-coordinated and adaptable system, augments health, productivity, and access for the public. The review ends by recommending better governance structures, flexibility, and system issues in healthcare delivery.

Keywords: Health Systems, Governance Models, Organizational Adaptability, Healthcare Management, Policy Frameworks, Healthcare Efficiency, Decentralization, Health Governance Challenges, Public-Private Partnerships.

Introduction

Here, governance and organizational flexibility are the core components of health systems' structure and functioning. Governance relates to interactions that determine directions, execution of decisions, and attainment of healthcare services. On the other hand, organizational adaptability is the ability of a system to be stable and sustained and grow in the face of such internal and external changes as research in health needs or crises. Public health initiatives and activities involved in providing health care services, management, and organization through governance and adaptation have macro-operational impacts on the global delivery of HS, patient care outcomes, and the sustainability of health systems.

Over the past decade or so, the management of health systems has emerged as an area of global concern as nations look to test new methods of governance to enhance output, productivity, and the use of health care among the populace. While centralized models may give high levels of standardization and control, decentralized models give high degrees of freedom and sensitivity. This hybrid regime is an attempt to adopt the best of both of the solutions(Nicola et al., 2020)..

¹ Ministry of Health, Saudi Arabia; aalshareef@moh.gov.com

² Ministry of Health, Saudi Arabia; khalabbas@moh.gov.sa

³ Primary Health Care Center in Jerba, Saudi Arabia; saldighrir@moh.gov.sa

⁴ Ministry of Health, Saudi Arabia; Soheelx99@gmail.com

⁵ Ministry of Health, Saudi Arabia; nalshreif@moh.gov.sa

⁶ Ministry of Health, Saudi Arabia; ialsharief@moh.gov.sa

⁷ Ministry of Health, Saudi Arabia; Aalshrief@moh.gov.sa

⁸ Ministry of Health, Saudi Arabia; Huyalsharif@moh.gov.sa

⁹ Ministry of Health, Saudi Arabia; Mahdi159@hotmail.com

¹⁰ Ministry of Health, Saudi Arabia; aalshareef@moh.gov.sa

Published a few years ago, system challenges relate to technological development, cost, population aging, and service demand in the health system today. Healthcare systems could, therefore, adapt to these changes to prevent poor health outcomes. Therefore, the appreciation of models of governance and organizational change and development is paramount in meeting the global health issues of the 21st century.

Drawing from the Organisation for Economic Co-operation and Development "health systems review," this review looks at several governance models in the health systems and their efficiency, difficulties, and consequences for the organizations' flexibility. This paper also reviews how the dimensions of governance and adaptability apply to system success and discusses policy frameworks, technology-telecom combinations, and workforce training to address these factors.

Literature Review

Governance in Health Systems: An Overview

On the other hand, health systems governance can be defined as the management of health sector decision-making. It monitors the fair distribution of resources, oversees accountability, and improves health care delivery. Good governance is linked with health outcomes, increased utilization of services, and utilization of resources. The WHO has defined health system governance as the process by which health system organization, funding, and delivery are controlled to ensure they are sustainable and fair.

The structures for delivering health systems within a given country can be grouped based on centralization or decentralization or a combination of both central and decentralized styles of governance. All these models have their strengths and weaknesses; the choice of the model will thus depend on the political economy and social climate of the country in question. The national-level decision makes for mass healthcare policies and service delivery since it brings out nationwide standardization. On the other hand, distributed systems provide decision-making to regional or local bodies and thus may prove efficient in addressing particular population requirements. The hybrid models try to achieve this centralization and decentralization characteristic with the advantages of the two on offer.



(Meijer & Bolívar 2016).

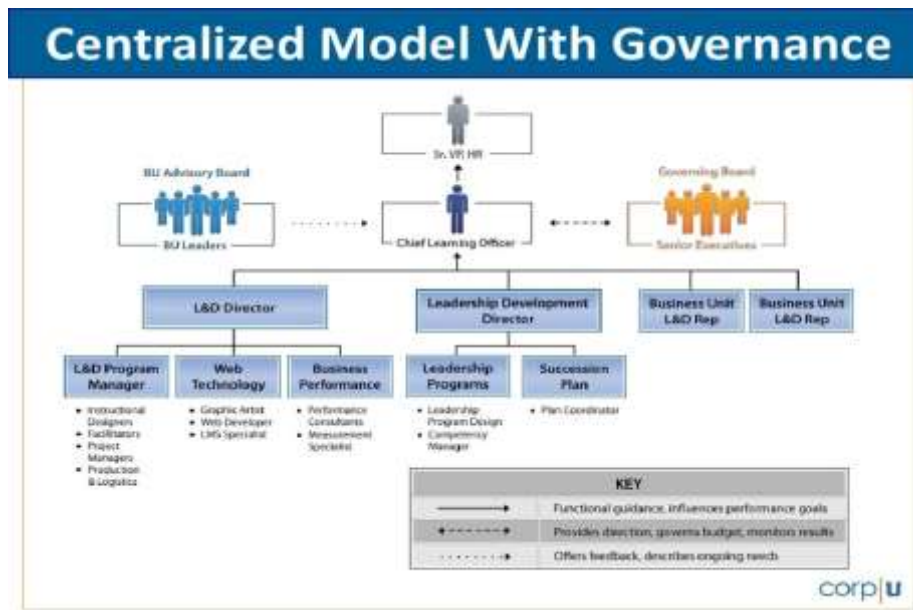
Governance Models in Healthcare

1. Centralized Governance Models

The factors influencing funding, resource acquisition, healthcare policies, and regulations are central to these healthcare systems. Centralized systems are generally more effective in using the resources involved

due to the standardization of policies, decisions, and procedures. The United Kingdom has a centralized healthcare system, and this type of healthcare delivery system is administered through the National Health Service (NHS). Centralized governance, therefore, leads to fairness regarding service delivery, standardization of the level of care given, and improved efficiency when it comes to cost.

However, centralized systems may be limited in their ability to respond to local needs, especially where the country is large or location-specific. The weak policy enforcement rate and absence of regional specificity may hamper the system's adjustment.

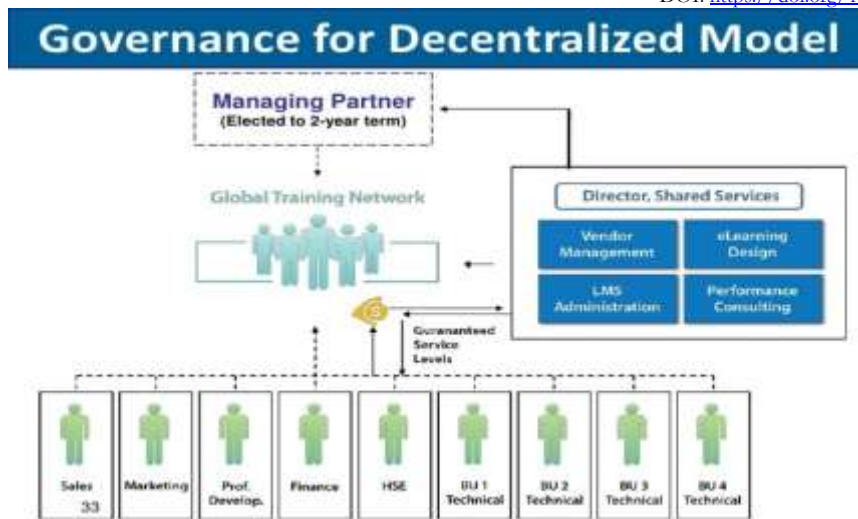


(Da Cruz et al., 2019).

2. Decentralized Governance Models

The decentralized governance system shifts the decision-making powers down to an organizational unit or geographic location to enable more localized and vital decision-making that is unmet. A decentralized system means that the local government or health agency has the power to decide and create the health policies of the local population. A not-so-well-known health system can be examined in the context of decentralization: Brazil's Sistema Único de Saúde (SUS).

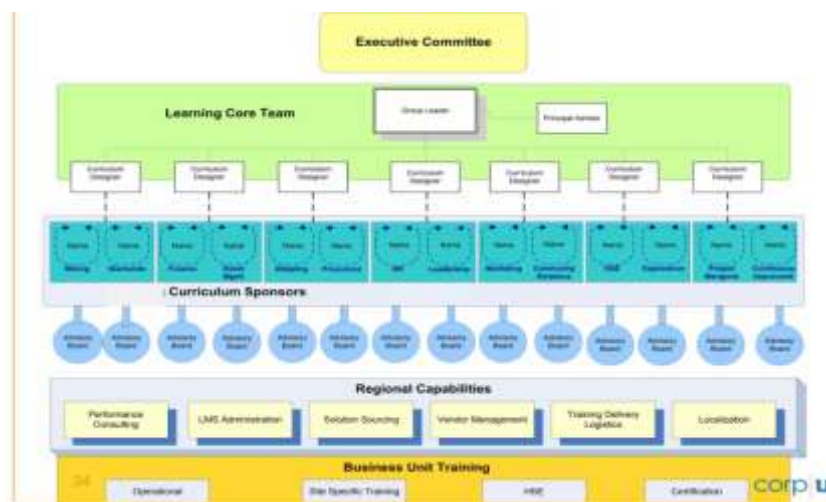
The decentralized system can better respond to local health requirements and crises since it is near the people making the decisions. However, there may be some issues, such as fragmentation of services, imbalance in the resources distributed, and maintenance of quality standards.



(Manavalan & Jayakrishna, 2019).

3. Hybrid Governance Models

Centralized and decentralized governance models are merged into hybrid organizational governance models. This model is common in countries such as Germany and Canada, with a national health framework but regional or local school-based flexibility to meet regional needs. Thus, hybrid models are oriented towards finding a rational compromise between eradicating local inequalities and maintaining central control while providing adequate maneuverability for local offices. Hybrid systems are considered ideal for balancing the strengths of centralization and decentralization but can be complex to manage due to competing interests between national and local authorities.



(Kossek & Perrigino 2016).

Organizational Adaptability in Health Systems

Health system organizations, therefore, need to be adaptable to be better positioned to deal with situations that require change. Successful running and sustenance of a health system depend on and work with the ability to respond to technological change, health shocks, and changes in population health needs. For example, the COVID-19 experience also showed major weaknesses in preparedness for such situations within the healthcare infrastructure, and flexibility and adaptability should be essential components of coping with such a crisis. Healthcare systems flexibility was evident when countries with flexible systems

were able to augment testing, vaccination, and telemedicine, all showing how flexibility is key to a system's success.

Main approaches to enhancing organizational flexibility are defined by embracing digital health technologies, developing strong human capital training programs, and having policies to enable quick and efficient changes. In addition, health systems need to be prepared with sound decision-making capacities in the event of crises and maintain sound quality care.

Health Systems Comparison

The literature analyzes information about comparing centralized, decentralized, and combined structures as the main approaches to the system's governance. Sweden and Denmark are now widely admired for their so-called hybrid systems of national coordination, which rely on a dense network of autonomous local health services. On the other end of centralization, the UK and Japan's predominantly centralized model of health systems has delivered high health outcomes, but they encounter issues in responding to the localized context and creative solutions.

The Rwandan health system has proved to be among the best examples of decentralized governance since it delivers UHC and health improvements with limited resources. On the other hand, countries that have a blend of centralized and decentralized systems, such as India, have a big problem with equity and efficiency in delivering healthcare.

Methods

The present review was carried out systematically, considering both quantitative and qualitative research. Primary data were obtained from peer-reviewed journals, reports from international health organizations and governments, and case studies from countries with varying governance systems. A comparative methodology was applied to the identified literature in this study to enable a comparative evaluation and discussion on the effectiveness of different governance models in health systems, particularly from equity, efficiency, and adaptability viewpoints.

Results and Findings

Effectiveness of Governance Models

1. Centralized Systems

Centralized governance systems are typical of the NHS and are characterized by high levels of resource optimization and the consistency of other services. National organizations provide a more simplified structure to the health systems; they remove the organizational clutter that might come with decentralized health systems; they guarantee that every citizen, regardless of where they come from, is given essential health care services. This approach can make equity achievable because it will ensure an equal distribution of healthcare facilities all over the country, implying that no region is dominant over the other and all the facilities provided will meet a certain standard. In particular, the NHS works efficiently during a pandemic or other threats to public health (Senbekov et al., 2020).. For instance, in the course of the COVID-19 challenge, England was in a position to easily convene massive testing and the delivery of vaccines, indicating the benefits of central control in crises.

While centralized systems are effective, they need help addressing a territory's particular needs, especially in remote and rural healthcare. Large nations are in a position where local healthcare issues may need to be adequately addressed due to the policy implementations and standardization the country commands. This was seen in the case of the NHS, wherein the program may be strong, yet rural areas and areas that lack a high demand for health services can have access they need. Also, standard solutions may not be the most efficient for improving the overall health of citizens, as the problems of metropolis residents can be quite different from the problems of those living in one remote village or an economically disadvantaged region.

Although everyone is guaranteed a good level of service and quality, there needs to be more accommodation for regional variation, and therefore, less flexibility is built into the healthcare system.

2. Decentralized Systems

On the other hand, decentralized systems like Brazil and Mexico are more flexible because the decision-making powers are delegated to the subnational government. Such models can be used where unique health issues affect various districts and provinces. SUS or the Unified Health System: The system of Brazil is also decentralized, and organizations give focus priorities and organize the interventions needed for their particular populace. This has been a major strength in the penetration, coverage, and health improvement needed to respond to inequalities in health within regions. Decision-making decentralization enables health authorities to be flexible, and interventions can easily be altered whenever there is an evolution in disease threats.

Decentralized systems have also proved useful in handling public health crises along the same lines. For example, in Brazil, states countered COVID-19 based on specific measures stemming from the epidemiological data of a particular region. Equally, in sub-Saharan Africa, due to the decentralized systems, regional solutions to epidemic syndromes such as Ebola have been provided. In these contexts, decentralized systems, on the other hand, allow for immediate and targeted intervention in those areas that require it most. However, such systems come with some difficulties. One of the main challenges of decentralized governance is the equal distribution of services in the regions (Grover & Kar 2017).. This is a problem because the local governments have power over the healthcare resources; thus, the quality of care and access to it can differ widely from one zone to another. Lack of standard and sustainable funding and resource allocation and unequal development of local governance systems result in fragmented healthcare services, and some areas experience challenges when delivering quality services. These challenges highlight the importance of adequate decentralization coordination and financial systems, lest decentralization worsens healthcare-related disparities.

1. Hybrid Systems

Integrated governance models seek to use both strong points of centralization and decentralization while having their drawbacks counterbalanced. As for the national level, Germany and Canada have chosen the hybrid form of organization that enhances a great deal of cooperation while encouraging decentralization of decision-making on a regional level. For example, Germany has one of the best healthcare systems in the world, where nationwide health insurance for the population is accompanied by regional implementation of services that allow management centralization along with local flexibility. This system gives them a single comprehensive system of financing health care while, at the same time, they are in a position to deliver health care services that respond to the emerging needs of the respective states. In this regard, Germany has remained with a single system that has offered high-quality care in the country despite having an association with the distribution of health care across the regions.

Nevertheless, hybrid models have disadvantages due to their inherent complexity. One of the difficulties is that because of the decentralized nature of healthcare systems within many countries, individual national governments and regional health departments can struggle to coordinate effective policies and implementation processes. This is where sound communication and management channels are needed—these are difficult to develop and maintain. Also, problems with standardizing care services may arise because hybrid systems may have complexities under conditions that cut across regions. A problem in a well-coordinated system is internal heterogeneity; the quality and volume of local centers vary due to differences in governance, healthcare facilities, and resources. Hence, even though hybrid models are highly flexible and adaptable, one may face many challenges in minimizing fragmentation and guaranteeing equal access to health care for everyone.

Impact of Organizational Adaptability

Health systems that manage change strategically are more responsive to changes in the short run and also to longer-term health challenges. Organizational flexibility, or dynamic preparedness, measures a health system's ability to respond to change, whether it is emerging diseases, better technologies, or changing population health needs (Grover & Kar 2017). Highly adaptable systems can fast lateral shifts at the policy, practice, and infrastructural levels to respond to emergent challenges, enhancing ultimate health goals.

This paper shows a good example of an adaptable health system: the South Korean health system, which was very responsive to the COVID-19 outbreak. Also, South Korea has a robust universal healthcare system supported by national administrative control and the incorporation of technology, identified rapid testing, contact tracing, and quarantine measures. Some of the implementation of digital health technology related to the use of mobile applications for contact tracing and the results of the tests were instrumental in the quick response by the government to the crisis. Because of such flexibility, the spread of the virus was curtailed, and the burden in the healthcare sector was reduced significantly.

Likewise, Estonia, which already had a strong foundation for digital health, could transition to telemedicine and telecare during such a crisis. The publication described how the uptake of digital solutions in the healthcare sector enabled a quick transition to telemedicine and delivered primary care to chronic disease consumers throughout the pandemic period. Digital health solutions have, therefore, been established by using electronic health records and telehealth services as pertinent to the flexibility and preparedness of health systems in handling any crisis.

In addition to emergency conditions, adaptable systems are more suitable for chronic conditions, including aging societies and increasing numbers of non-communicable diseases. Patients' healthcare needs are constantly changing, which implies that the healthcare system used should also change. Technology acquisition and employee training are needed to allow health facilities to respond to the growing demand for their services. Flexible systems can incorporate new treatments, technologies, and models of care, enhancing the capability and efficiency of service delivery to patients.



(Hosseini et al., 2016).

Discussion

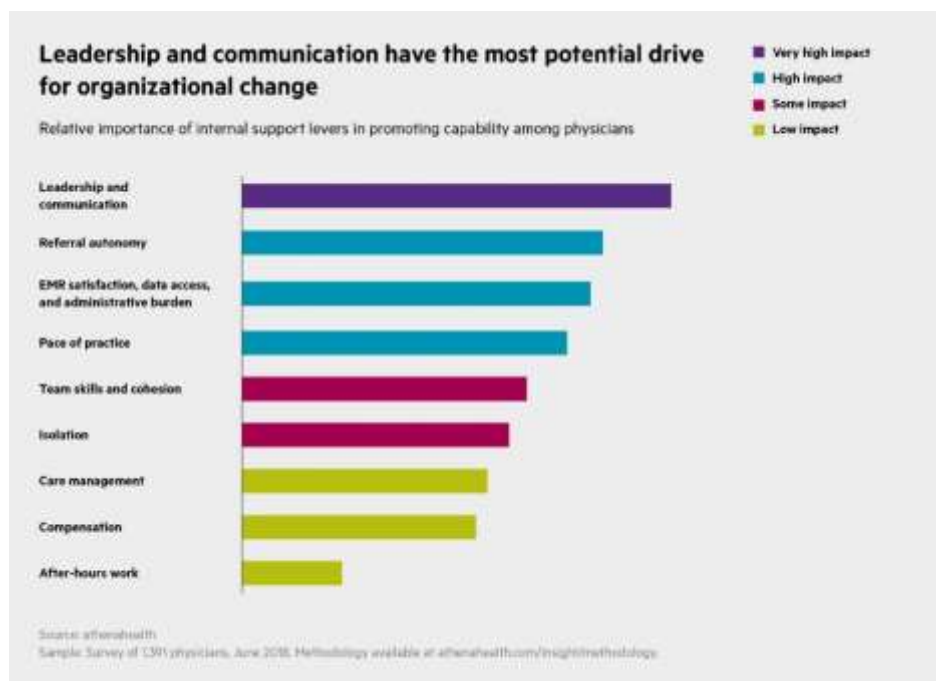
The importance of the governance models is evident since they determine the performance of healthcare services and define the shape, access, and delivery of such services. However, the performances of these models also reflect the ability of the models to evolve in response to fluctuating healthcare needs and novel pressures. Large consolidated services, such as the NHS in the UK, afford a considerable degree of standardization and set this up to measure the accuracy of resource distribution and fairness in service organization. This centralized approach means that the healthcare delivery systems in the country are

uniform throughout the country. Nonetheless, centralized organizations must respond more adequately to local health demands, especially in rural or widespread geography. It is important because decision-makers who can change policies and services to suit their environment can only sometimes do so effectively, leading to problems with access and health disparities.

The systems in Brazil and Mexico have greater responsiveness by allowing the regional authorities to manage health services according to the region's needs. This enables the implementation of specific, focused strategies regarding regional health inequalities and new and re-emerging hazards to health. For instance, while dealing with numerous specialties, decentralized systems are more efficient in combating a particular disease in a particular geographical area and addressing shortages of particular resources. However, decentralization raises many challenges, especially on the issue of equity in the delivery of services. A lack of coordination in local administrative structure and dissimilarities in funding and resources result in uncoordinated, uneven, or inequitable health care provision (Dixit & Sambasivan 2018). Realizing the planned structures without some cohesion mechanisms in place can also lead to a weakening of a certain number of structures in favor of others; this worsens the state of regional equity, weakening the general health system.

Using a hybrid approach, linking both center and decentralization can potentially solve the problems posed by both systems. In the present context, the most appropriate models lie between the highly centralized systems, such as those in Germany and Canada. This structure provides a possibility to maintain the centralized approach to policy and resource distribution, and, at the same time, it is possible to meet regional necessities and preferences. However, care delivery and service organization across multiple tiers of government become challenging, and maintaining care standards becomes an issue with a multi-tier governance structure.

The other is organizational flexibility, which is a major determinant of the sustainability and robustness of health systems. Flexible health systems are better placed to respond to such sudden emergent issues of health or technology turbulence in an instant. Covid-19 proved how good governance and health systems can respond quickly to public health crises like South Korea. Telemedicine and EHR systems are potential components of integrated digital health solutions for establishing greater continuity of care as crises occur. Fostering these technologies and creating adaptable policies that enable regular minor changes can greatly improve the ability to manage pressures in the short-term and intra-annum changing health demands such as elderly populations or chronic diseases.



(Biddle et al., 2020).

Finally, it is also important to focus on the efficiency of healthcare governance, not just in terms of the type of system present but also on the adaptability of the particular system in question and the existing pressures from outside and inside the healthcare field. Coordinating the obtained results of the centralized, decentralized, and combined models with the support for organizational flexibility can contribute to the stability and the appropriate functioning of health systems and their ability to deliver necessary care for populations consistently amid the existing issues.

Conclusion

Good and responsive governance, apart from the operational adaptability of an organization, are key determinants that define the viability and durability of health systems. This research has revealed that there is no one-fit governance model that can be implemented, but there is a need to adopt the hybrid centralized and decentralized model of governance. Such complexities mean that health systems must be able to change and develop to meet future needs, including the need to manage pandemics, the increasing population of older people, and the rising incorporation of modern technologies. Decision-makers should develop robust, scalable models for meeting the care needs of populations with varying and likely expanding prerequisites in the context of globally interconnected systems.

Recommendations

- **Strengthen Governance Structures:** One should also look into hybrid configuration models for the purpose of headquarters control and the autonomy of numerous coverage locations where equity and flexibility are vital.
- **Invest in Adaptability:** Health systems need to improve digital development and staff preparation for possible future contingencies and shocks.
- **Focus on Equity and Accessibility:** Health care should remain important for everyone, including the neglected regions.
- **Promote Public-Private Partnerships:** Encourage active cooperation between the state and private sector to overcome funding shortages, facility shortages, and service provision failures.

References

- Biddle, L., Wahedi, K., & Bozorgmehr, K. (2020). Health system resilience: a literature review of empirical research. *Health policy and planning, 35*(8), 1084–1109. <https://academic.oup.com/heapol/article-abstract/35/8/1084/5856261>
- Barasa, E., Mbau, R., & Gilson, L. (2018). What is resilience and how can it be nurtured? A systematic review of empirical literature on organizational resilience. *International journal of health policy and management, 7*(6), 491. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6015506/>
- Turenne, C. P., Gautier, L., Degroote, S., Guillard, E., Chabrol, F., & Ridde, V. (2019). Conceptual analysis of health systems resilience: a scoping review. *Social Science & Medicine, 232*, 168–180. <https://www.sciencedirect.com/science/article/pii/S0277953619302205>
- Tiernan, A., Drennan, L., Nalau, J., Onyango, E., Morrissey, L., & Mackey, B. (2019). A review of themes in disaster resilience literature and international practice since 2012. *Policy design and practice, 2*(1), 53–74. <https://www.tandfonline.com/doi/abs/10.1080/25741292.2018.1507240>
- Priebe, S., Giacco, D., & El-Nagib, R. (2016). Public health aspects of mental health among migrants and refugees: a review of the evidence on mental health care for refugees, asylum seekers and irregular migrants in the WHO European Region. World Health Organization. Regional Office for Europe. https://apps.who.int/iris/handle/10665/326308?search-result=true&query=¤t-scope=10665%2F107132&filtertype_0=dateissued&filter_relational_operator_0>equals&filter_0=%5B2010+T+O+2019%5D&rpp=10&sort_by=score&order=desc&page=29
- Linnenluecke, M. K. (2017). Resilience in business and management research: A review of influential publications and a research agenda. *International journal of management reviews, 19*(1), 4–30. <https://onlinelibrary.wiley.com/doi/abs/10.1111/ijmr.12076>

- Hosseini, S., Barker, K., & Ramirez-Marquez, J. E. (2016). A review of definitions and measures of system resilience. *Reliability Engineering & System Safety*, 145, 47-61. <https://www.sciencedirect.com/science/article/pii/S0951832015002483>
- Dixit, S. K., & Sambasivan, M. (2018). A review of the Australian healthcare system: A policy perspective. *SAGE open medicine*, 6, 2050312118769211. <https://journals.sagepub.com/doi/abs/10.1177/2050312118769211>
- Grover, P., & Kar, A. K. (2017). Big data analytics: A review on theoretical contributions and tools used in literature. *Global Journal of Flexible Systems Management*, 18, 203-229. <https://journals.sagepub.com/doi/abs/10.1177/2050312118769211>
- Grover, P., & Kar, A. K. (2017). Big data analytics: A review on theoretical contributions and tools used in literature. *Global Journal of Flexible Systems Management*, 18, 203-229. <https://link.springer.com/article/10.1007/s40171-017-0159-3>
- Senbekov, M., Saliev, T., Bukeyeva, Z., Almabayeva, A., Zhanaliyeva, M., Aitenova, N., ... & Fakhradiyev, I. (2020). The recent progress and applications of digital technologies in healthcare: a review. *International journal of telemedicine and applications*, 2020(1), 8830200. <https://onlinelibrary.wiley.com/doi/abs/10.1155/2020/8830200>
- Kossek, E. E., & Perrigino, M. B. (2016). Resilience: A review using a grounded integrated occupational approach. *Academy of Management Annals*, 10(1), 00-00. <https://journals.aom.org/doi/abs/10.5465/19416520.2016.1159878>
- Da Cruz, N. F., Rode, P., & McQuarrie, M. (2019). New urban governance: A review of current themes and future priorities. *Journal of Urban Affairs*, 41(1), 1-19. <https://www.tandfonline.com/doi/abs/10.1080/07352166.2018.1499416>
- Manavalan, E., & Jayakrishna, K. (2019). A review of Internet of Things (IoT) embedded sustainable supply chain for industry 4.0 requirements. *Computers & industrial engineering*, 127, 925-953. <https://www.sciencedirect.com/science/article/pii/S0360835218305709>
- Nicola, M., Sohrobi, C., Mathew, G., Kerwan, A., Al-Jabir, A., Griffin, M., ... & Agha, R. (2020). Health policy and leadership models during the COVID-19 pandemic: A review. *International journal of surgery*, 81, 122-129. https://journals.lww.com/international-journal-of-surgery/fulltext/2020/09000/Health_policy_and_leadership_models_during_the.34.aspx
- Meijer, A., & Bolívar, M. P. R. (2016). Governing the smart city: a review of the literature on smart urban governance. *International review of administrative sciences*, 82(2), 392-408. <https://journals.sagepub.com/doi/abs/10.1177/0020852314564308>
- Shahid, N., Rappon, T., & Berta, W. (2019). Applications of artificial neural networks in health care organizational decision-making: A scoping review. *PloS one*, 14(2), e0212356. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0212356>
- Cvitanovic, C., Hobday, A. J., van Kerkhoff, L., Wilson, S. K., Dobbs, K., & Marshall, N. A. (2015). Improving knowledge exchange among scientists and decision-makers to facilitate the adaptive governance of marine resources: a review of knowledge and research needs. *Ocean & Coastal Management*, 112, 25-35. <https://www.sciencedirect.com/science/article/pii/S0964569115001167>
- Lerner, J. E., & Robles, G. (2017). Perceived barriers and facilitators to health care utilization in the United States for transgender people: a review of recent literature. *Journal of health care for the poor and underserved*, 28(1), 127-152. <https://muse.jhu.edu/pub/1/article/648752/summary>
- Battilana, J., Besharov, M., & Mitzinnck, B. (2017). On hybrids and hybrid organizing: A review and roadmap for future research. *The SAGE handbook of organizational institutionalism*, 2, 128-162. <https://www.torrossa.com/gs/resourceProxy?an=5018766&publisher=FZ7200#page=157>
- Butpheng, C., Yeh, K. H., & Xiong, H. (2020). Security and privacy in IoT-cloud-based e-health systems—A comprehensive review. *Symmetry*, 12(7), 1191. <https://www.mdpi.com/2073-8994/12/7/1191>