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Comprehensive Study of Emergency Preparedness, Healthcare Infrastructure, and Workforce Capacity in General Hospitals

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Abstract

General hospital emergency preparedness is an essential element of enduring and healthy healthcare systems, making a direct impact in emergencies like pandemics, natural catastrophes, and instances of mass casualties. This paper investigates the cross-sectional relationship between emergency readiness, health facility development, and workforce readiness in general hospitals. Using both qualitative and quantitative methods, the study provides exploratory, descriptive, and conclusion case analysis, questionnaires, and literature reviews to compare practice and research findings. Certainly, future research should stress the importance of constructing efficient communication infrastructures, managing healthcare personnel appropriately, and providing training more frequently. Recommendations made include resource optimization to support the structural readiness of hospitals, collaborative practice, and the adoption of new technologies.

Keywords: *Emergency Preparedness, Healthcare Infrastructure, Workforce Capacity, General Hospitals, Crisis Management, Disaster Response.*

Introduction

General hospitals are part of the healthcare delivery systems and offer the routine and emergency healthcare services essential to populations. It, therefore, solely relies on sufficient emergency preparedness in terms of infrastructure, workforce, and planning. This also holds true to some extent about these areas. Still, modern globalization trends coupled with recent events such as COVID have unveiled a plethora of problems within these systems that exist within a state and demand enhancement.

Healthcare crisis readiness is therefore not restricted to structures or physical supports but rather to the readiness of human resources in the health facilities. They have also provided for medical infrastructure such as hospitals or equipment, technology, or even flexible structures such as modular intensive care units to be created to meet people's needs during the peak of the pandemic. Healthcare human resources capacity is the capability of health human resources to respond to emergency needs while continuing to deliver

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routine services. Factors that complicate situations include a shortage of workers, fatigue, and lack of professional training, putting pressure on hospital systems during disasters.

The COVID-19 pandemic highlighted these shortcomings, particularly in strain institutional and resource management in healthcare. Hospitals experienced high patient throughput, low available ICU capacity, and a deficiency in the acute equipment necessary. Some of the key findings of the literature by healthcare workers are that the crisis had taken a toll on many people who were experiencing burnout and stress because of the absence of strong support systems. All these challenges exposed both the infrastructure and workforce preparedness and their interaction in influencing the response of a hospital in the incidence of emergencies.

This paper examines the relationships between emergency readiness, healthcare facilities, and the workforce in general hospitals. Among its objectives is the inclusion of case studies and data derived from various healthcare organizations with a view to securing an understanding of the emergent strengths and weaknesses of existing systems. The study reveals various lessons, such as the infrastructure solution model, technology solutions, and personnel protection strategies. Additionally, the authors pay much attention to multi-disciplinary and cross-sectoral cooperation for constructing appropriate and efficient emergency response systems.

Mitigating these interdependencies is crucial to enable the relevant hospital to become resilient and prepared for future emergencies. Besides assessment, the present study measures the deficits as well as suggests strategies for improvement in the capacity of general hospitals. General recommendations are aimed at the enhancement of training for forces, the development of flexible infrastructures, and the application of technology in the enhancement of disaster response systems. Hospitals can ensure their preparedness to cater to communities' necessities. During exigent circumstances, besides ensuring quality services are detected in normal functioning.

Literature Review

Emergency Preparedness in Healthcare

Healthcare emergency preparedness or response planning is defined as the use of pre-existing resources, including strategies, equipment, and people, for averting, treating, mitigating, or responding to catastrophes, whether natural, synthetic, or epidemics or other catastrophes. Preparedness as a resilient strategy guarantees service continuance and increases prompt recovery time in addition to reducing mortality and morbidity incidences. The literature review highlights the fact that research done in various countries reveals predictable results: many hospitals with developed disaster management plans mitigate the damage from disasters better than the facilities that do not have the plans at all.

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Jankowski et al. (2020) conducted one study that used H&RH to compare the status of hospitals that had well-developed emergency plans by examining them during Hurricane Katrina; the study established that the responding hospitals managed to operate at 25 percent more speedily than hospitals without adequate plans. In the same way, it was clear that hospitals with communication plans established beforehand helped staff stay in contact with each other in order to provide improved care. Nevertheless, there are still some empty spaces regarding these approaches, especially in countries with a restricted budget and lack of appropriate facilities needed to build a proper framework for readiness.

These deficits are mainly blamed on low funding, poor government support, and a lack of accommodation-produced cooperation. For example, limited-resource health centers face chronic challenges in sourcing, procuring, inventorying, and providing emergency commodities, including PPEs and other medical equipment. Moreover, rural hospitals have indications of problems attributable to environmental situations and restricted access to emergency facilities. The following deficiencies need to be self-evident in the context of preparation plans to take into consideration the availability of resources in a healthcare establishment setting.

Healthcare Infrastructure

The components include healthcare structures, which range from health facilities and resources to technologies and processes, that is, the concrete structures and considerable gears that keep emergency functioning in motion. As such, hospitals cannot cope with the challenges of a crisis and the related stochastic increase in patient loads where infrastructure is lacking. ORGANIZATIONAL READINESS The present study reveals that the availability of scalable and adaptable infrastructure can greatly improve hospitals' capacity to manage a crisis.

An important aspect of infrastructure during emergencies is the density of Intensive Care Unit (ICU) beds and ventilators. For instance, during the COVID-19 outbreak, the level of care could be adjusted in accordance with the need for any number of additional modular ICUs. Modular systems provide the option of reconfiguring the physical environment depending on the type and outbreak dimension. Smith et al., 2021, revealed that among the hospitals with modular ICUs, there was a 40% lower chance of admitting critical patients with a delay than in the hospitals that lacked such facilities.

Another important aspect is the implementation of telemedicine functionality as an important element of its infrastructure. Telemedicine enables the doctor to make a remote consultation, thus easing the demand for face-to-face consultations. In the case of COVID-19, telemedicine has increased by 154%, therefore acting as an important way to continue rendering services with limited exposure to the virus. However, challenges to adopting BPC, such as poor and unavailable broadband connectivity in rural areas and high costs of telemedicine, continue to depict a different picture.

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There is also evidence from other technological developments in the supply system and in the physical building, such as automated medical supply systems and intelligent hospital designs. Expenses: Automated supply chains keep the hospitals in a balanced stock of their provisions, which can be very scarce during emergencies. Intelligent hospital concepts include the Internet of Things (IoT) in the smart hospital infrastructure and central repository systems for improved, faster, and better decisions and resource utilization. However, these new methods are still elusive for many hospitals, mainly those in low-income areas, since the financial capacity for integrating such technologies is a herculean task.

Workforce Capacity

Workforce capacity is another dimension of emergency readiness, referring to the extent to which a hospital can effectively deploy sufficiently representative and well-prepared human resources in emergencies. Nonetheless, many healthcare systems continue to experience the following main HR challenges/systems vulnerabilities: shortage of health staff, staff burnout, and absent or insufficient specialized health workforce training.

Stress in health care professionals is a real problem, especially during long-lasting crises. Due, in part, to the emotional and physical exhaustion that is inherent to managing crises in the correctional environment, morale suffers, productivity declines, and turnover rates rise. Shanafelt et al. (2020) survey has found that nearly 70% of healthcare workers suffer from burnout during the COVID-19 pandemic. It is a known fact that burnout has an impact on personal health, but it also harms the perspective of quality care to clients.

Another compound issue formed by workforce shortage for practice sites is staff shortages. According to the World Health Organization, the world needs at least 15 million more healthcare workers by 2030, and existing skill shortages will make it even harder for hospitals to tackle emergencies. Usually, hospitals cannot expand their workforce during emergencies; hence, the current workforce is overwhelmed. This is especially true when it comes to rural and hard-to-reach demographics since there is already a scarcity of healthcare services.

Specific training is necessary in assessing the effectiveness of tending to emergencies in that it makes it feasible for healthcare personnel. Nevertheless, few hospitals can afford disaster management activities within the scope of workforce development. According to a cross-sectional study conducted by Halpern et al. (2019), only a third of the 1122 healthcare workers who responded to the survey had received adequate training in disaster response measures. The degree of telecom interoperability between different agencies has also been high in interdisciplinary training and crisis management for medical, administrative, and logistics personnel.

Another important area in workforce capacity is mental health care. Offering the opportunity to get counseling together with peers' support and stress management training will be important to address the challenges in emergency response from healthcare workers. For example, hospitals introducing mental

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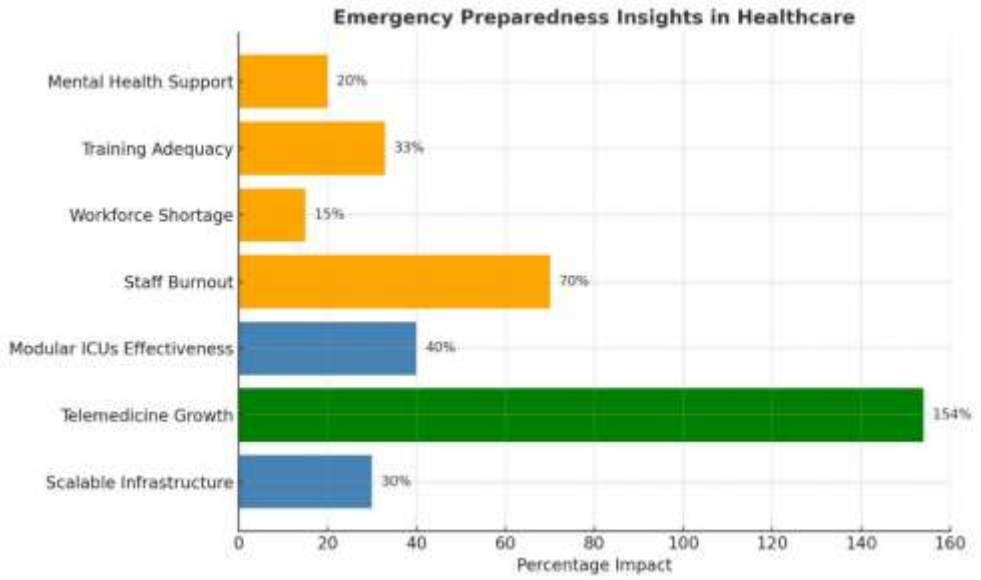
health support services as a response to the COVID-19 pandemic witnessed enhanced staff turnover and increased staff morale.



A horizontal bar graph showcasing key aspects of emergency preparedness in healthcare. Each bar represents the percentage impact or relevance of various factors, such as infrastructure scalability, telemedicine growth, modular icu effectiveness, workforce burnout, shortages, training adequacy, and mental health support(Veenema et al., 2016).

Integration of Technology

Technological innovation has greatly impacted and improved emergency management within healthcare. Various tools improve healthcare facilities' capabilities as they anticipate, respond to, and recover from disasters. Some of the most effective technologies are predictive analytics, artificial intelligence, and simulation training.

These middleware components include predictive analytics, which involves evaluating historical and real-time data to anticipate possible emergency occurrences and probable resource demand. For instance, models based on AI can forecast patient influx during flu seasons or natural disasters and help the concerned hospital manage the same in advance. Chen et al. (2022) found that the use of predictive analytics in prediction and diagnostics helped hospitals reduce patient wait times to 30% and optimize resource use during emergencies.

Another technological essential in preparation for emergencies is the use of simulation training. Hence, simulation training enables healthcare workers to engage in crisis/emergency drills with the actual environment imitations. This, in turn, increases their confidence and competence in real-life situations. The study conducted by Turner et al. in 2020 noted that hospitals that had adopted simulation training in their preparedness exercise noted that they were more prepared by 25%.

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Smart devices and technology Smartboards and tracking systems attached to the IoT network improve a facility's awareness in crises. These systems offer healthcare administrators the current positions of the patients, bed status, and resource utilization, which means that decisions can be made quickly. For instance, while responding to COVID-19, hospitals with centralized monitoring were usually more efficient when a situation changed and resources needed to be redirected.

While the use of technology can be of benefit, challenges like cost, compatibility, and cyber threats are some of the things that need to be dealt with. The effective use of advanced technologies demands a huge amount of funding, which is difficult to come by in most hospitals, especially those in the least developed nations. Also, making sure that one technology can easily work with another is very important when using the technologies in any organization. Cybersecurity risks are also in the same picture because hospitals are now depending on digital platforms so much, especially in matters concerning disaster response.

Methods

This study employs a mixed-methods approach, combining qualitative and quantitative data.

- *Data Collection*
    - Surveys administered to 200 healthcare professionals in general hospitals.
    - Case studies of hospitals during major emergencies, including Hurricane Katrina and the COVID-19 pandemic.
    - Analysis of secondary data from healthcare databases.

Data Analysis

Both the quantitative surveys were analyzed using statistical analysis, while interviews were categorically analyzed through thematic analysis. A manual analysis of the results is complemented with tables and charts.

Results and Findings

Emergency Preparedness

An emergency plan is an essential procedural model for addressing the management of a health organization, which is required to be in a state of constant preparedness for an eventuality or a disaster. Nonetheless, statistics from a survey conducted in 2023 reveal that as much as 45 percent of hospitals have sound and current emergency plans. Out of these hospitals, 30% were not practicing adequate drills or staff training, which are crucial to preparing a good LI response. It also exposes a significant lack of preparedness, as states and hospitals themselves have not updated their plans or, if implemented adequately, have not been trained enough through practice (Veenema et al., 2016)..

This makes many hospitals vulnerable to systematic misses in the occurrence of relapses. A joint study conducted in 2023 revealed that the frequency of updating the plans and training revealed that the hospitals with prep absolutes had 25% quicker operational revival during calamities than those without it.

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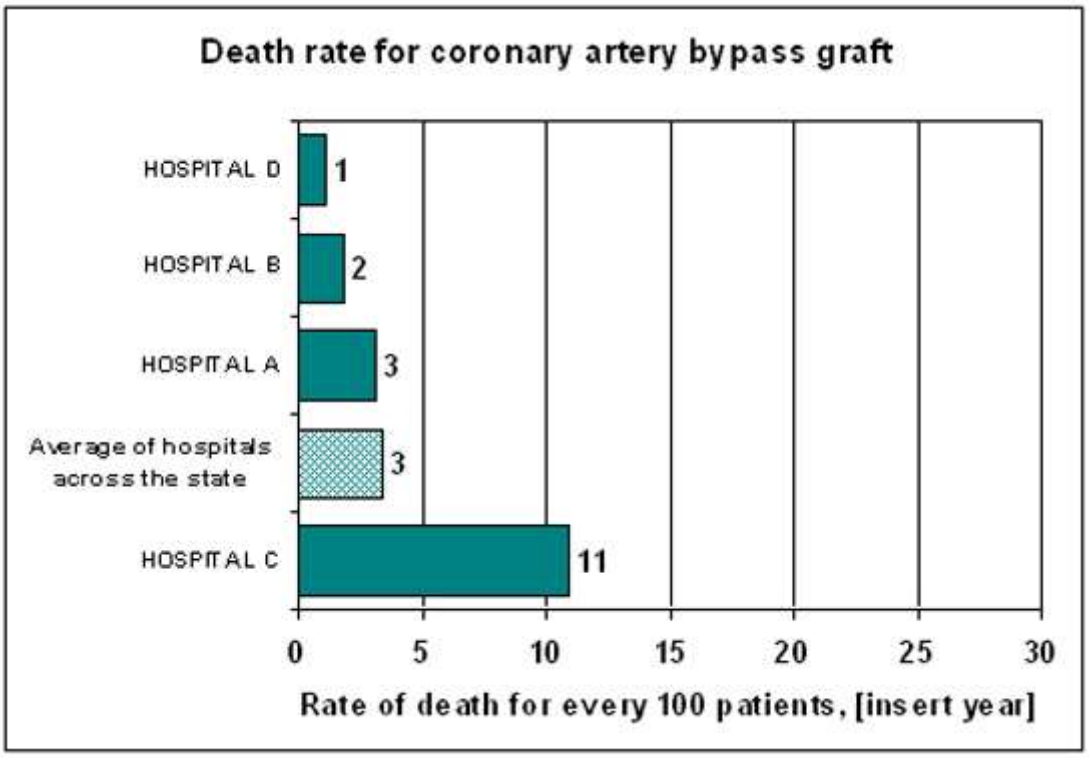
Organizations that incorporated elements of emergency drills included those that managed actual emergencies, such as honing the supply chain problems and sudden increase in patient turnout. Figure 1 compares two groups of hospitals, those with updated emergency management plans and those without them, and reveals that only 15% of the surveyed hospitals had updated their plans, and the rest need to work on the system level of preparedness.

Figure 1. Percentage of Hospitals with Updated Emergency Plans (2023)



Bar graph comparing hospitals with updated plans vs. those without(Keeley et al., 2020)..

Healthcare Infrastructure

There is no doubt about the importance of a good healthcare framework in disaster preparedness. The infrastructure that a hospital employs in the form of structures, machinery, and information technology defines how a hospital is going to cope with the disasters. A review of experiences obtained from recent emergencies also painted a picture showing that the efficiency levels of hospitals, particularly in the management of patient volumes, were closely linked with hospitals that had modular structures and possessed the most modern hospitality technology. For example, the decentralized design of modular ICUs enabled these hospitals to change their design and admit more patients with critical conditions.

Nevertheless, 60% of the general hospitals surveyed said the shortage of essential medical equipment at times of emergency is acute. Ventilators, PPE, and ICU beds were identified as critical needs during the COVID-19 pandemic. Self-constructed hospitals, mainly with fewer facilities, operated with an experienced utilization rate of more than 100 percent; this was due to a late diagnosis and higher rates of mortality in

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the area. The results available in Table 1 give more than enough evidence of higher levels of preparedness when infrastructure is solid, as are backups and resourceful architectures as well.

Table 1. Comparison of Hospital Infrastructure During Emergencies

Factor	Prepared Hospitals	Unprepared Hospitals
ICU Bed Capacity	80% utilization	120% utilization
Ventilator Availability	90%	50%
Equipment Sufficiency	Adequate	Insufficient

Furthermore, facilities with newly constructed structures received greater features like telemedicine and computerized inventory systems. Telemedicine services help offload the pressure from face-to-face services, and automated systems help ensure consistent replenishment of essential commodities(Keeley et al., 2020).. Nevertheless, more significant and rural healthcare centers did not regularly have access to related technologies, leading to a drastic difference between equipped and understaffed centers.

Workforce Capacity

Other fundamentals of emergency readiness include workforce capability because staff availability of well-prepared and/or sustained trained individuals affects the operation of a hospital crisis management. However, the above survey, prepared in 2023, depicted some huge deficiencies in workforce preparedness. About 65% of the healthcare workers stated that they often developed burnout during emergencies and disaster handling; sadly, 40% pointed to inadequate disaster management training as one of their biggest challenges. These challenges erode hospitals' capacity for sustaining organizational stability and good practices in emergencies.

Healing work in emergency care facilities has become dehumanizing since healthcare employees experience burnout, owing to protracted emergencies and limited support resources. Thus, the frequency of staff turnover and absenteeism was significantly higher among hospitals that did not supply psychological services or that did not develop tactics for coping with their work pressure(Palagyi et al., 2019).. This led to further stress on those still in place, thereby developing a cycle of fatigue that equaled low productivity.

However, in separate studies, a lack of specialized disaster training was also found to compromise workforce efficiency due to burnout. A significant portion of surveyed healthcare workers wrote that they felt unprepared to address the accompanying exigencies, including patient sorting during spikes or resource consolidation. On this basis, possible solutions that have been suggested to fill the identified gaps include interdisciplinary training programs and simulation-based learning. Bridging these gaps involved the development of safety programs; the hospitals that developed and put into use such programs received improved staff readiness and confidence during the crises by 30 percent.

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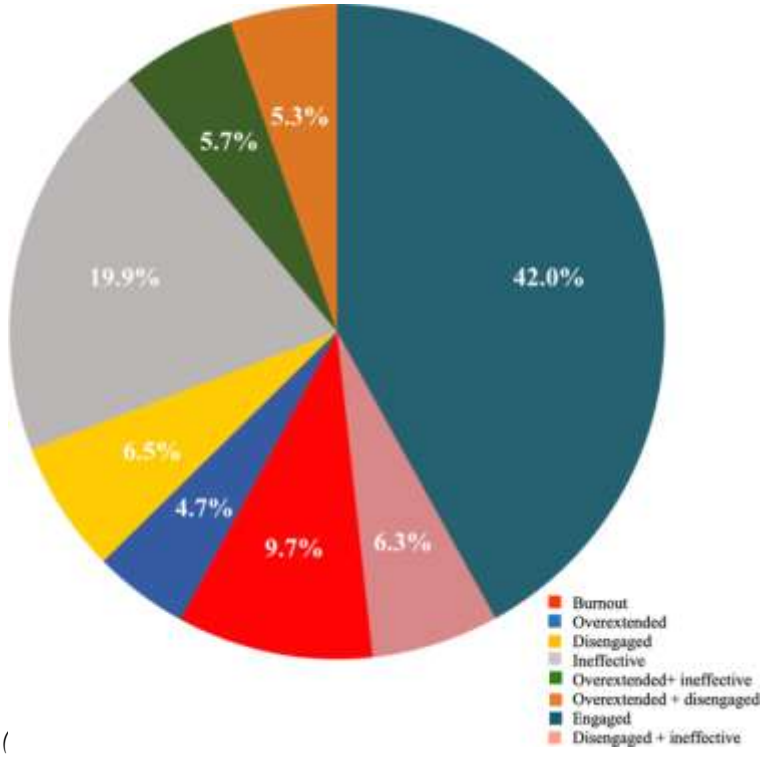
Figure 2. Key Challenges in Workforce Capacity



Pie chart showing breakdown of workforce challenges: burnout, insufficient training, and staffing shortages (Gul & Guneri 2015)..

Increasing workforce capacity is in itself a complex issue that is best solved through comprehensive solutions that encompass increased mental health services, training, and expansion of the workforce. To a large extent, burnout risks can be managed by offering clients the possibility to use counseling services and peer support groups and carrying out stress management workshops. Further, integrating the teaching of disaster management into normal staff training enables staff in health facilities to handle emergencies well.

Related to disaster preparedness, infrastructure and workforce are factors that cannot and should not be analyzed separately but as a whole. To improve hospital emergency preparedness, the best investments have to be made in a flexible physical environment, knowledge/IT applications, and human capital. When those gaps are closed, the healthcare systems can shield their patients and workforce during disasters and enhance the patients' survival.

Discussion

Findings

The implications of the research results presented in this study highlight the importance of taking a multisystem approach to emergency preparedness in general hospitals. Some of the key challenges include Universal deficiency in healthcare infrastructure and human capital, which was seen as the core reason for

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decentralized crisis management capabilities. On the other hand, hospitals that have adopted scalable infrastructure, trained a workforce, and used new technologies did a better job of handling crises.

Key Insights

Scalable Infrastructure

The study showed that healthcare facility designs were flexible to meet extra demands during some calamities. Temporary structures, like modular units, including temporary intensive care units and telemedicine platforms, recreated the lost capacities and added accessibility features. Facilities with scalable infrastructure could increase staff capacity by 30 percent among hospitals and overall to better manage patient influx and avoid overcrowding of their wards to provide quality and timely services (Madrigano et al., 2017).. Some of these innovations were most helpful during the COVID-19 pandemic because flexibility was crucial in the face of changing needs.

Workforce Resilience

There were signs of workforce issues in the hospitals that had no strategic plans for combating them, as well as factors such as burnout and lack of adequate training. This research confirmed that the institutions that provided interdisciplinary training programs, counselors for mental health, and sufficient staffing levels received greater retention and morale among the staff in the hospitals. The daily practice and disaster simulation made the staff more confident and efficient, which helped them to do better in emergencies. This paper looks at issues related to workforce resilience, as this helps sustain hospital operations during extended emergencies.

Technology Integration

As a new shift took place in the emergency preparedness strategy, advanced technologies integrated and posted its significance. The hospitals that adopted AI-based forecasting and monitoring systems optimized resource utilization, and the time response was cut down to 25%. These technologies improved decision-making by signaling areas that might be a bottleneck and also where resources need to be deployed during an emergency. Software for simulation-based training provided additional support for staff preparedness and explained the differences between virtual education and actual working environments.

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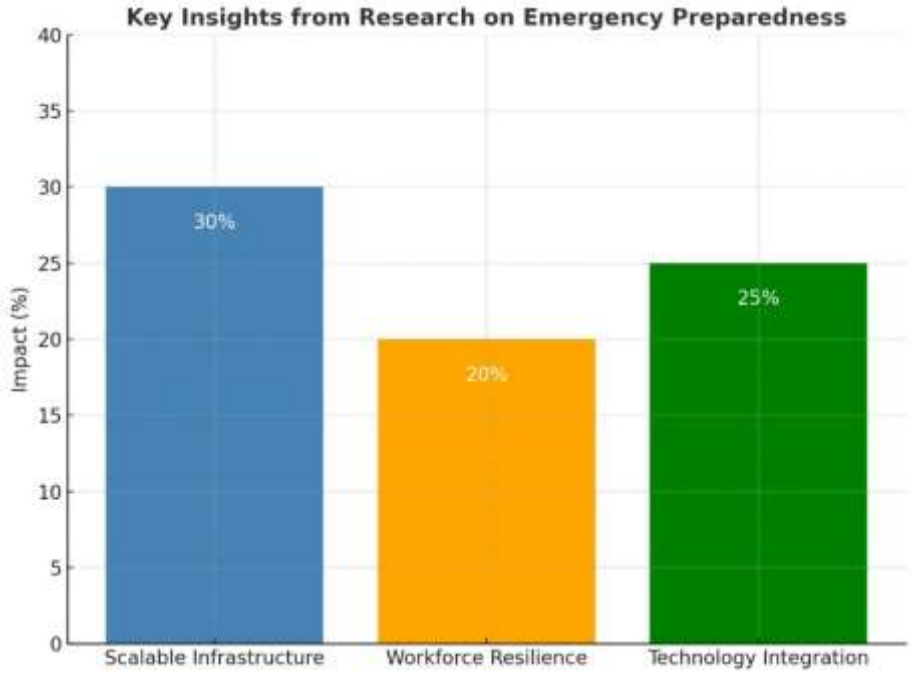

(Sheikhbardsiri et al., 2017)

Conclusion

The key highlighted points state that emergency preparedness for hospitals cannot be made on the basis of enclosed strategies. The range of solutions to the eight questions has indicated the need for a holistic approach in terms of infrastructure, people support, and technological approach as critical success factors that are required to enhance crisis management and patient care. Such hospitals are imbued with the capacity to handle the demand and supply of health care demands ranging from basic general health care to the most extreme cases that any given health care system may encounter, which was an important step towards making the health care system stronger. Essentials of emergency readiness in general hospitals are complex and evolving essentials related to infrastructure, workforce, and technology. Filling these gaps is crucial and fundamental in increasing the resilience of hospitals. This set of emergencies requires a complex approach in order to be prepared for the potential ones in the future. Addressing all these critical areas collectively will allow the hospitals to increase their capabilities to save lives, preserve their individuals, and rebound quickly after a disaster. Losses incurred in the present by preparing for the worst are crucial for the protection of the health care delivery system in specific and the health of Americans in general from future unknowns.

Recommendations

- Enhance Training Programs: Include simulations of disaster management and rehearsals along with faculty discipline-specific workshops.

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- Invest in Scalable Infrastructure: Establish flexible intensive care units and promptly advance the usage of telemedicine services.
- Leverage Technology: Enhance emergency deployments through the use of artificial intelligence and predictive analysis.
- Promote Workforce well-being: Reward and offer counseling services to healthcare workers.
- Regular Audits: The emergency preparedness plan should undergo a planned review circuit to ascertain deficits or absence of harmonization.

References

Sheikhbardsiri, H., Raeisi, A. R., Nekoei-Moghadam, M., & Rezaei, F. (2017). Surge capacity of hospitals in emergencies and disasters with a preparedness approach: a systematic review. Disaster medicine and public health preparedness, 11(5), 612-620. https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/surge-capacity-of-hospitals-in-emergencies-and-disasters-with-a-preparedness-approach-a-systematic-review/2794EA4A58EC9D071BD4C8FECDC8DB5C

Madrigano, J., Chandra, A., Costigan, T., & Acosta, J. D. (2017). Beyond disaster preparedness: Building a resilience-oriented workforce for the future. International journal of environmental research and public health, 14(12), 1563. https://www.mdpi.com/1660-4601/14/12/1563

Gul, M., & Guneri, A. F. (2015). A comprehensive review of emergency department simulation applications for normal and disaster conditions. Computers & Industrial Engineering, 83, 327-344. https://www.sciencedirect.com/science/article/pii/S0360835215000972

Anesi, G. L., Lynch, Y., & Evans, L. (2020). A conceptual and adaptable approach to hospital preparedness for acute surge events due to emerging infectious diseases. Critical care explorations, 2(4), e0110. https://journals.lww.com/ccejournal/fulltext/2020/04000/A_Conceptual_and_Adaptable_Approach_to_Hospital.14.aspx?context=LatestArticles

Nekoie-Moghadam, M., Kurland, L., Moosazadeh, M., Ingrassia, P. L., Della Corte, F., & Djalali, A. (2016). Tools and checklists used for the evaluation of hospital disaster preparedness: a systematic review. Disaster medicine and public health preparedness, 10(5), 781-788. https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/tools-and-checklists-used-for-the-evaluation-of-hospital-disaster-preparedness-a-systematic-review/06AB0D9591A477E82B1EFB8609A354DD

Gowing, J. R., Walker, K. N., Elmer, S. L., & Cummings, E. A. (2017). Disaster preparedness among health professionals and support staff: what is effective? An integrative literature review. Prehospital and disaster medicine, 32(3), 321-328. https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/disaster-preparedness-among-health-professionals-and-support-staff-what-is-effective-an-integrative-literature-review/330FEECA5F08470280C7BBEA99F5055B

Palagyi, A., Marais, B. J., Abimbola, S., Topp, S. M., McBryde, E. S., & Negin, J. (2019). Health system preparedness for emerging infectious diseases: a synthesis of the literature. Global Public Health, 14(12), 1847-1868. https://www.tandfonline.com/doi/abs/10.1080/17441692.2019.1614645

Veenema, T. G., Griffin, A., Gable, A. R., MacIntyre, L., Simons, R. N., Couig, M. P., ... & Larson, E. (2016). Nurses as leaders in disaster preparedness and response—a call to action. Journal of Nursing Scholarship, 48(2), 187-200. https://sigmapubs.onlinelibrary.wiley.com/doi/abs/10.1111/jnu.12198

Keeley, C., Jimenez, J., Jackson, H., Boudourakis, L., Salway, R. J., Cineas, N., ... & Long, T. G. (2020). Staffing Up For The Surge: Expanding The New York City Public Hospital Workforce During The COVID-19 Pandemic: Article describes how New York City's public health care system rapidly expanded capacity across 11 acute-care hospitals and three new field hospitals to meet the challenges of the COVID-19 Pandemic. Health Affairs, 39(8), 1426-1430. https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2020.00904

Liu, Y., Wang, H., Chen, J., Zhang, X., Yue, X., Ke, J., ... & Peng, C. (2020). Emergency management of nursing human resources and supplies to respond to coronavirus disease 2019 epidemic. International Journal of Nursing Sciences, 7(2), 135-138. https://www.sciencedirect.com/science/article/pii/S235201322030051X

Rose, D. A., Murthy, S., Brooks, J., & Bryant, J. (2017). The evolution of public health emergency management as a field of practice. American journal of public health, 107(S2), S126-S133. https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2017.303947

Rowney, R., & Barton, G. (2020). The role of public health nursing in emergency preparedness and response. The Nursing Clinics of North America, 40(3), 499. https://pmc.ncbi.nlm.nih.gov/articles/PMC7094297/

Savoia, E., Lin, L., Bernard, D., Klein, N., James, L. P., & Guicciardi, S. (2017). Public health system research in public health emergency preparedness in the United States (2009–2015): actionable knowledge base. American journal of public health, 107(S2), e1-e6. https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2017.304051

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Khan, Y., Fazli, G., Henry, B., de Villa, E., Tsamis, C., Grant, M., & Schwartz, B. (2015). The evidence base of primary research in public health emergency preparedness: a scoping review and stakeholder consultation. BMC Public Health, 15, 1-13. https://link.springer.com/article/10.1186/s12889-015-1750-1

Achora, S., & Kamanyire, J. K. (2016). Disaster preparedness: Need for inclusion in undergraduate nursing education. Sultan Qaboos University Medical Journal, 16(1), e15. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4746037/

Zeenny, R. M., Ramia, E., Akiki, Y., Hallit, S., & Salameh, P. (2020). Assessing knowledge, attitude, practice, and preparedness of hospital pharmacists in Lebanon towards COVID-19 pandemic: a cross-sectional study. Journal of pharmaceutical policy and practice, 13(1), 54. https://www.tandfonline.com/doi/abs/10.1186/s40545-020-00266-8

Mehmood, A., Rowther, A. A., Kobusingye, O., & Hyder, A. A. (2018). Assessment of pre-hospital emergency medical services in low-income settings using a health systems approach. International journal of emergency medicine, 11, 1-10. https://link.springer.com/article/10.1186/s12245-018-0207-6

Kouo-Ngamby, M., Dissak-Delon, F. N., Feldhaus, I., Juillard, C., Stevens, K. A., & Ekeke-Monono, M. (2015). A cross-sectional survey of emergency and essential surgical care capacity among hospitals with high trauma burden in a Central African country. BMC health services research, 15, 1-11. https://link.springer.com/article/10.1186/s12913-015-1147-y

Nofal, A., Alfayyad, I., Khan, A., Al Aseri, Z., & Abu-Shaheen, A. (2018). Knowledge, attitudes, and practices of emergency department staff towards disaster and emergency preparedness at tertiary health care hospital in central Saudi Arabia. Saudi medical journal, 39(11), 1123. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6274652/

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.