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Best Practices in Health Administration for Managing Public Health Emergencies Including Pandemics and Natural Disasters: Review

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Abstract

Background: Integrating Health Emergency and Disaster Risk Management (Health EDRM) into healthcare systems, particularly nursing, is essential for enhancing resilience against public health emergencies. The COVID-19 pandemic has highlighted the critical role of nurses and community health workers in managing health crises.

Methods: This study employed a comprehensive literature review, case studies, and expert consultations to identify best practices and competencies necessary for effective Health EDRM workforce development. Key areas of focus included training programs, stakeholder engagement, and community involvement.

Results: Findings revealed significant gaps in workforce competencies and training, particularly regarding the roles of community health workers (CHWs) and nurses during disasters. Successful programs emphasized a people-centered approach, fostering collaboration among various stakeholders to enhance disaster preparedness and response. The research also identified essential competencies that should be

integrated into training frameworks to empower the nursing workforce and improve disaster management outcomes.

Conclusion: Strengthening the Health EDRM workforce requires a strategic commitment to developing core competencies, enhancing training programs, and fostering collaboration between health professionals and communities. By prioritizing the involvement of nurses and CHWs, healthcare systems can improve their capacity to respond effectively to emergencies, ultimately safeguarding public health and resilience.

Keywords: Health EDRM, nursing, workforce development, community health workers, disaster preparedness.

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1. Introduction

From 2000 to 2019, were 7,348 catastrophes linked to natural hazards globally, causing 1.2 million fatalities and impacting over 4 billion people [1]. The latest COVID-19 pandemic has resulted in an extra 2 million fatalities by early 2021, with a continually increasing number of infections attributed to the extremely contagious COVID-19 virus and its variations. The pandemic posed an unparalleled challenge to all sectors within nations, particularly public health, and continues to exert substantial strain on health systems and workforce capability at local, national, and global levels. The significant morbidity and mortality resulting from catastrophes underscores the need for nations to enhance health system capacity and for the worldwide community to establish a cohesive framework for disaster risk management via comprehensive governmental and societal strategies [2].

The probability of disaster is contingent upon the intricate interplay between hazard intensity and frequency, the population exposed, their susceptibility, and the efficacy of risk management capabilities [3]. The four factors—hazard, exposure, vulnerability, and capacity—are affected by several risk variables, including poverty, unplanned urbanization, climate change, and state instability, necessitating solidarity at both national and global levels. The Sendai Framework on Disaster Risk Reduction 2015–2030 was approved during the 2015 Third United Nations World Conference on Disaster Risk Reduction, establishing objectives and priorities for disaster risk management [4,5]. Building upon earlier global Disaster Risk Reduction (DRR) frameworks, including the Yokohama Strategy (1994) and the Hyogo Framework (2005), the Sendai Framework prioritizes human health within global Disaster Risk Management (DRM) and calls upon all UN member states to enhance their DRM capabilities to safeguard the lives, livelihoods, and health of their populations [6,7].

The World Health Organization (WHO) launched the Thematic Platform for Health Emergency and Disaster Risk Management (Health EDRM) in 2009 to include the one health idea into disaster risk management (DRM). The Sendai Framework has stimulated Health EDRM initiatives: the WHO Thematic Platform for Health EDRM Research Network (Health EDRM RN) was established in 2016 to foster global research collaboration and offer technical guidance for evidence-based Health EDRM policies and practices [8,9]. These advancements signify the progression of Health EDRM over the last ten years and the release of the WHO Health EDRM Framework in 2019, including extensive health-related DRM initiatives in prevention, readiness, response, and recovery. It offers policy suggestions for mitigating health risks, vulnerabilities, and exposures while enhancing coping ability to strengthen resilience in health systems, communities, and nations [8,10].

The health EDRM framework is congruent with the objectives and priorities outlined in the Sendai Framework and the 13th WHO General Programme of Work, while also contributing to other significant UN agreements, including the Sustainable Development Goals, the Paris Agreement on Climate Change, and the International Health Regulations (2005). These significant worldwide frameworks may synergistically enhance comprehensive measures for safeguarding human lives, resilience, health security, and development [8].

2. Health Electronic Document and Records Management Workforce

Health EDRM has originated from several fields, including risk management, emergency management, epidemic preparation and response, community disaster resilience, and health systems enhancement. Health EDRM is established at the extensive convergence of health and disaster risk management. It enables a holistic societal strategy to mitigate risks from various hazards for nations and communities, enhance skills and systems across health and other sectors, and diminish health risks associated with crises and disasters [11].

The Health EDRM Framework delineates risk management principles and encompasses 10 components along with approximately 200 functions essential for effective Health EDRM. A fundamental component is human resource management, which entails staff planning (e.g., surge capacity for emergency response, including rapid response teams), competency development training, and ensuring the occupational health and safety of personnel, including the community-level health workforce and the protection of all individuals [12, 13].

The Health EDRM RN identified health workforce development as a critical research area, emphasizing the knowledge gaps in a shared understanding of the necessary knowledge and competencies for the health EDRM workforce, along with the training and professional development content required at both organizational and national levels [14]. This encompassed their engagement with stakeholders, comprehending the sustainability of the local health workforce for Health EDRM, promoting constructive interactions between external support personnel and the local workforce, facilitating a successful transition to recovery, and incorporating strategies to mitigate future risks and enhance system resilience. Further comprehension is required about how nations might enhance Health Emergency and Disaster Risk Management (EDRM) via disaster risk management training programs, as well as how they can retain, motivate, and effectively deploy trained individuals [15-17].

Effective human resource capabilities and management systems are essential for executing various Health Emergency Disaster Risk Management activities and addressing potential health risks from all types of catastrophes. A comprehensive understanding of the function and makeup of the health EDRM workforce is essential for the successful management and mobilization of all available human resources with varying levels of skills, experience, and knowledge. A risk management strategy for Health EDRM acknowledges that a significant portion of the health workforce contributes to mitigating the risks and effects of crises and catastrophes. The diverse composition of the health EDRM workforce, coupled with the absence of well-defined administrative and governance models at the national level and the collective responsibility for executing functions, presents inherent challenges in utilizing workforce groups to establish a comprehensive taxonomy for the health EDRM workforce [18].

The WHO (2006) generally defines human resources for health as “all individuals involved in activities aimed primarily at improving health.” This concept encompasses all health professionals, including doctors, nurses, pharmacists, and other key workers such as managers, ambulance crew, and administrative employees, who are vital for sustaining effective health systems [19]. They are, unequivocally, essential workforce cohorts under the health EDRM framework. In hazardous occurrences, supplementary entities, including rescue personnel and community workers, play crucial roles in preserving lives. Therefore, they have to be included in Health EDRM workforce growth plans, such as surge capacity planning.

3. Research Requirements for Health EDRM Workforce Advancement

To cultivate a successful Health EDRM workforce at local, national, and global levels, it is imperative to recognize the significant deficiencies in workforce development and evidence [11,20]. Initially, it is essential to establish consensus on definitions for the health EDRM workforce within the framework of various health system components. This may assist in delineating the profile and extent of the participants (e.g., health service delivery, policy formulation, planning and coordination, human resource management, funding, logistics, and community-based Health Emergency Disaster Risk Management).

Secondly, numerous educational and training programs have been established globally by academic institutions, hospitals, professional organizations, governments, and non-governmental entities, aimed at enhancing health systems and healthcare professionals' capacity to manage risks related to emergencies. Nonetheless, these programs often use abilities, terminologies, and course frameworks derived only from a single program or institution, and some may lack a foundation in research data [20-23]. Consequently, these programs may differ significantly, and the inconsistency among them has impeded risk management, including prevention, preparation, response, readiness, recovery, and coordination during catastrophes, sometimes leading to disjointed support for impacted populations [24-26].

The need to include community health workers (CHWs) at every level of disaster response was underscored during the Ebola virus epidemic in West Africa from 2014 to 2016. Nonetheless, the functions, essential skills, and minimal criteria for Community Health Workers (CHWs) are often insufficiently included in local or national disaster risk management strategies within the health sector and beyond [27-30]. When governments or organizations want to develop core competence frameworks, it may be challenging to adapt the general models used across many programs and institutions for unique national applications. Although some nations have competence frameworks, these frameworks often emphasize readiness and reaction rather than comprehensive risk management by the health EDRM framework [22].

It is essential to ensure that global guidelines or frameworks adapt to advancements in Health EDRM. Consequently, it is crucial to delineate a set of evidence-based, practical, universally recognized core competencies and standardized knowledge frameworks that can be customized to fit any national context, facilitating their incorporation into national Health EDRM capacity development strategies, policies, and plans in alignment with population health priorities and identified skills deficiencies.

Third, despite the existence of extensive Health EDRM workforce efforts and programs worldwide, the development of such programs poses significant challenges for several nations [24,31,32]. Difficulties may stem from various sources, such as insufficient comprehension of necessity, exclusion from governmental priorities, constrained physical and financial resources, absence of established information exchange and coordination mechanisms (particularly pronounced in resource-limited countries), the existence of post-conflict phases, residents in remote areas, and communities with marginalized populations [33-36]. Furthermore, although programs exist, they primarily emphasize practical skills and frequently neglect management functions, such as effective governance, coordination mechanisms, and human resource management among external support personnel and the local workforce to optimize the utilization of the available health workforce [22,24]. Disseminating exemplary practices from current Health EDRM workforce development initiatives may demonstrate effective methods for planning, managing, retaining, motivating, deploying, and coordinating human resources [31].

In 2019, the WHO solicited applications for the Health EDRM Workforce Development research project to address the pressing demand for enhanced evidence to inform policy and practices [11]. This document delineates the planning and strategy of the project, predicated on the proposal 'Health Workforce Development Strategy in Health EDRM: Evidence from Literature Review, Case Studies, and Expert Consultations.' This multinational initiative began in June 2020. The goals and objectives of this extensive research project were formulated by the research questions established by the WHO Thematic Platform for Health EDRM and its research group. This project seeks to delineate guidelines and optimal practices for the development of the health EDRM workforce, as well as to formulate strategies that enhance successful workforce development, therefore informing policy and practice across WHO regions.

4. Significance of Evidence-Based Recommendations for Health EDRM Workforce Development

The main objective of this project is to provide a series of explicit, succinct, and implementable suggestions for enhancing successful Health EDRM workforce development initiatives. The proposals are expected to serve as valuable resources for various audiences in directing future Health EDRM workforce development at local, national, and regional/global levels.

4.1. Local or Community Level

Hazardous events of varying magnitudes, including catastrophes, may occur in both rural and urban areas, posing a direct danger to community health. The probability of disaster is anticipated to increase due to hazard modifiers, such as climate change, and escalating exposures and vulnerabilities, including unplanned urbanization. Therefore, with a robust national strategy for disaster risk reduction, enhancing the ability to manage emergency risks via substantial community involvement is crucial for mitigating both the risks and consequences of catastrophes. The health EDRM framework prioritizes a people- and community-centered approach, recognizing that community members often serve as the first responders in crises, and their local knowledge and experience are crucial for the effective execution of Health EDRM projects [10]. The One Billion Coalition for Resilience and the 2015 World Disasters Report of the International Federation of Red Cross and Red Crescent Societies (IFRC) emphasized the need to empower local communities for the enhancement of resilience.

Community people need to be pivotal in community-based 'bottom-up' or 'grassroots' efforts [37]. It is crucial to include local stakeholders in risk assessment and program execution from the beginning. They may assist in gathering data on particular local catastrophe risks, as well as local knowledge, culture, and health hazards. Importantly, they may also facilitate program involvement and execution within their communities [38, 39]. To enable communities to effectively avoid, prepare for, and react to unanticipated catastrophes, citizens must acquire sufficient information and skills via training or risk communication.

A 'bottom-up' planning strategy initiates by collaborating with communities to identify and solve their genuine needs and priorities. This involves identifying local hazards, vulnerabilities, and capacities, which enables the creation of targeted initiatives to minimize recognized local risks and enhance local capabilities to manage risks impacting communities, particularly sub-populations at greater risk [38,40]. Diverse community-oriented health promotion initiatives have been established along this trajectory, addressing non-communicable illnesses and mental health [41,43-45]. Nonetheless, the functions and assistance of national and regional entities are crucial for community disaster risk management, since contributions from governmental authorities are vital for establishing appropriate rules, financial resources, and technical capabilities.

Improving community catastrophe resilience requires collaborative efforts among all principal stakeholders, including community leaders who can ascertain priorities and educate the local workforce based on regional requirements. Multidisciplinary partnerships serve as a crucial coordination tool for effective 'bottom-up' efforts, as they may provide enhanced outcomes by integrating the knowledge of all project stakeholders [41,46,47]. Government and partner support is essential to enhance the community health workforce by fortifying existing health systems and supplying resources, such as financing, technical assistance, human resources, or materials.

Optimizing the talents and competencies of current community health workers (CHWs) will serve as a significant advantage for community disaster risk assessment, preparation, response, recovery, and sustained resilience. Community Health Workers possess comprehensive information on health requirements and inherent vulnerabilities within their communities, and they have significant local trust, which bolsters their credibility and legitimacy. Therefore, enhancing community-based Health EDRM initiatives that prioritize community involvement is crucial [49].

The case studies and suggestions produced in this project serve as evidence and direction for evaluating the resources and capabilities within communities to formulate or amend community-based disaster preparation and response plans. This project's proposals may prompt national governments to institutionalize a 'people- and community-centered approach' in their national health workforce development strategies by the Health EDRM Framework. This project will provide instruments to formulate, execute, and oversee community Health EDRM workforce development plans, including the establishment of core competencies and minimal requirements for community workforce training programs [50].

4.2. National Scale

The efficacy of national health systems and health service coverage relies on the availability, accessibility, acceptability, and quality of healthcare professionals, particularly during crises when the population's health requirements are expected to increase. The COVID-19 pandemic underscored that addressing acute and chronic health requirements arising from catastrophes and crises may lead to considerable infrastructure and service disruptions, especially in high-income countries with robust health systems. Consequently, for a nation to enhance or augment the quality and availability of its health personnel during crises, national governments need to formulate or amend national health and multisectoral disaster risk management plans and health workforce policies. This procedure requires thorough strategic methodologies accompanied by meticulous preparation [51].

The project will incorporate a health workforce capacity assessment tool to identify national priorities, including the existing health workforce, underserved regions, necessary skills, available training and supervision, and any discrepancies between workforce capabilities and anticipated health needs during emergencies. This prioritization will facilitate the identification of the most pressing and appropriate options for implementation inside a nation. A robust multisectoral cooperation is essential to optimize institutional capacity, including enough funds, suitable policies and legal frameworks, well-defined coordination structures, and explicit responsibility. The series of case studies will elucidate the optimal practices required to facilitate functional cooperation intended to enhance a national Health EDRM workforce [52].

4.3. Regional or Global Level

Certain regional and international organizations provide training programs aimed at certain specialists or establish frameworks to delineate the roles and duties of these experts. The WHO Regional Offices have executed regional Health EDRM workforce training via several programs, such as PHEMAP (Public Health and Emergency Management in Asia and the Pacific), PHEMEURO (Public Health and Emergency Management in Europe), and MPHR (Management of Public Health Risks in Disasters and Complex Emergencies), which have predominantly been discontinued. These programs addressed the issue that most existing training initiatives primarily concentrated on technical techniques, particular illnesses, or preparation and response, rather than on holistic all-hazards risk management. Consequently, training is essential to enhance management functions for emergencies and catastrophes worldwide, while also adhering to global standards at national and regional levels [53].

The WHO Emergency Medical Team (EMT) program seeks to establish baseline requirements for surge capacity on a worldwide scale. Since 2015, a worldwide register for Emergency Medical Technicians (EMTs) has been established to assist governments in ensuring that only certified teams are sent to impacted regions. Emergency Medical Technicians must engage in a quality assurance process, demonstrating that they possess enough educated personnel and suitable procedures, equipment, and supplies to provide contextually appropriate treatment [54].

The International Council of Nurses (ICN) and the World Health Organization (WHO) established a Framework of Disaster Nursing Competencies to augment the capabilities of the nursing workforce amid global health crises. The ICN/WHO framework establishes a unified set of competencies for the global catastrophe nursing workforce and elucidates the duties of nurses in disasters at local, national, and international levels [55,56]. The EMT and Disaster Nursing Competencies will be comprehensively shown in our case studies.

The COVID-19 pandemic has shown the significance of international programs like OpenWHO and the Global Outbreak Alert and Response Network (GOARN) as vital platforms for global disaster risk communication and information dissemination to monitor and manage extensive epidemics. OpenWHO, established by WHO in 2020, is a web-based interactive platform for knowledge transfer, providing timely and evidence-based scientific information and education during health crises. The OpenWHO.org platform

has seen substantial growth, surpassing 5 million learner registrations. The quantity of courses and participants has increased markedly, with 25 free online COVID-19 courses available in 44 languages.

In 2020, GOARN established a global risk communication and information management platform known as the 'COVID-19 knowledge hub' to furnish the health EDRM workforce with current information on COVID-19, thereby facilitating enhanced disaster risk management, including training initiatives and infection prevention and control strategies [56]. The COVID-19 pandemic illustrates the critical need to develop a healthy EDRM workforce. Presenting evidence and best practices enhances the network of international stakeholders and promotes effective coordination, alignment, and accountability in addressing global concerns in Health EDRM workforce development.

5. Conclusions

This extensive research initiative, comprising literature reviews, case studies, and an expert consensus study, seeks to offer strategic recommendations for health workforce development in Health EDRM. The integration of Health Emergency and Disaster Risk Management (Health EDRM) into traditional healthcare systems is vital in enhancing the capacity to respond to health crises. The COVID-19 pandemic has underscored the importance of a well-prepared and trained workforce, particularly nurses and community health workers (CHWs), who serve as frontline responders during emergencies. This research highlights the critical need for a cohesive approach to workforce development, focusing on building competencies that are essential for effective disaster management.

One of the predominant findings of this study is the identification of significant gaps in the current training programs for health professionals. Many existing initiatives lack a comprehensive framework that encompasses the diverse roles of nurses and CHWs in disaster scenarios. To address these gaps, it is essential to develop standardized competencies that can be adapted to various national contexts. These competencies should include not only technical skills related to emergency response but also soft skills, such as communication and community engagement, which are crucial for effective disaster management.

Moreover, fostering collaboration among healthcare providers, governmental bodies, and local communities is imperative. A bottom-up approach, where community members are actively involved in risk assessment and program execution, has been shown to enhance resilience and preparedness. Engaging local stakeholders can lead to more effective disaster risk management strategies that are culturally appropriate and contextually relevant.

In conclusion, the successful integration of Health EDRM into healthcare systems demands a multifaceted strategy that prioritizes workforce development, community involvement, and intersectoral collaboration. By investing in training and empowering nurses and CHWs, healthcare systems can significantly improve their preparedness and response capabilities, ultimately enhancing public health outcomes and resilience in the face of future emergencies.

References

1. CRED; UNDRR. Human Cost of Disasters: An Overview of the LAST 20 Years 2000–2019. Available online: https://reliefweb.int/report/world/human-cost-disasters-overview-last-20-years-2000-2019 (accessed on 1 February 2021).
2. World Health Organization. WHO Coronavirus Disease (COVID-19) Dashboard. Available online: https://covid19.who.int/ (accessed on 1 February 2021).
3. UNDER. Understanding Risk. 2019. Available online: https://www.undrr.org/building-risk-knowledge/understanding-risk (accessed on 1 February 2021).
4. UNDER. Sendai Framework for Disaster Risk Reduction. Available online: https://www.unisdr.org/we/inform/publications/43291 (accessed on 1 February 2021).
5. United Nations. Yokohama Strategy and Plan of Action for a Safer World. 1994. Available online: https://www.unisdr.org/files/8241_doc6841contenido1.pdf (accessed on 1 February 2021).

6. United Nations. Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters. 2005. Available online: http://www.unisdr.org/2005/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf (accessed on 1 February 2021).
7. World Health Organization. WHO Technical Guidance Notes on Sendai Framework Reporting for Ministries of Health; Licence: CC BY-NC-SA 3.0 IGO; World Health Organization: Geneva, Switzerland, 2020.
8. Wright, N.; Fagan, L.; Lapitan, J.M.; Kayano, R.; Abrahams, J.; Huda, Q.; Murray, V. Health Emergency and Disaster Risk Management: Five Years into Implementation of the Sendai Framework. Int. J. Disaster Risk Sci. 2020, 11, 206–217.
9. World Health Organization. WHO Thematic Platform for Health Emergency and Disaster Risk Management. 2009. Available online: https://www.who.int/hac/techguidance/preparedness/WHO-Thematic-Platform-Health-EDRM-Terms-Reference-2018.pdf?ua=1 (accessed on 11 March 2021).
10. World Health Organization. Health Emergency and Disaster Risk Management Framework. 2019. Available online: https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-management-framework-eng.pdf?ua=1 (accessed on 1 February 2021).
11. Kayano, R.; Chan, E.Y.; Murray, V.; Abrahams, J.; Barber, S.L. WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (TPRN): Report of the Kobe Expert Meeting. Int. J. Environ. Res. Public Health 2019, 16, 1232.
12. World Health Organization. WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network: Terms of Reference. 2018. Available online: https://www.who.int/hac/techguidance/preparedness/WHO-Thematic-Platform-Health-EDRM-Research-Network-2018.pdf?ua=1 (accessed on 11 March 2021).
13. Lo, S.T.; Chan, E.Y.Y.; Chan, G.K.; Murray, V.; Abrahams, J.; Ardalan, A.; Kayano, R.; Yau, J.C. Health emergency and disaster risk management (health-EDRM): Developing the research field within the Sendai framework paradigm. Int. J. Disaster Risk Sci. 2017, 8, 145–149.
14. World Health Organization. Thirteenth General Programme of Work 2019–2023. 2018. Available online: https://www.who.int/about/what-we-do/thirteenth-general-programme-of-work-2019---2023 (accessed on 1 February 2021).
15. United Nations General Assembly (UNGA). Transforming Our World: The 2030 Agenda for Sustainable Development Goals. 2015. Available online: https://sdgs.un.org/goals (accessed on 1 February 2021).
16. United Nations Framework Convention on Climate (UNFCC). The Paris Agreement. 2015. Available online: https://unfccc.int/sites/default/files/english_paris_agreement.pdf (accessed on 1 February 2021).
17. World Health Organization. International Health Regulations, 3rd ed.; World Health Organization: Geneva, Switzerland, 2005; Available online: https://www.who.int/publications/i/item/9789241580496 (accessed on 1 February 2021).
18. World Health Organization. The World Health Report 2006–Working Together for Health; World Health Organization: Geneva, Switzerland, 2006; Available online: http://www.who.int/whr/2006/en/index.html (accessed on 1 February 2021).
19. World Health Organization. Monitoring the Building Blocks of Health Systems: A Handbook of Indicators and Their Measurement Strategies. Available online: https://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf (accessed on 1 February 2021).
20. Aung, M.N.; Murray, V.; Kayano, R. Research Methods and Ethics in Health Emergency and Disaster Risk Management: The Result of the Kobe Expert Meeting. Int. J. Environ. Res. Public Health 2019, 16, 770.
21. Daily, E.; Padjen, P.; Birnbaum, M. A review of competencies developed for disaster healthcare providers: Limitations of current processes and applicability. Prehosp. Disaster Med. 2010, 25, 387–395.

22. Gallardo, A.R.; Djalali, A.; Foletti, M.; Ragazzoni, L.; Della Corte, F.; Lupescu, O.; Arculeo, C.; Arnim, G.; Friedl, T.; Ashkenazi, M.; et al. Core Competencies in Disaster Management and Humanitarian Assistance: A Systematic Review. Disaster Med. Public Health Prep. 2015, 5, 1–10.
23. Hsu, E.B.; Thomas, T.L.; Bass, E.B.; Whyne, D.; Kelen, G.D.; Green, G.B. Healthcare worker competencies for disaster training. BMC Med. Educ. 2006, 6, 19.
24. World Health Organization. Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters. Available online: https://www.who.int/csr/resources/publications/ebola/foreign-medical-teams/en/ (accessed on 1 February 2021).
25. Djalali, A.; Ingrassia, P.L.; Della Corte, F.; Foletti, M.; Gallardo, A.R.; Ragazzoni, L.; Kaptan, K.; Lupescu, O.; Arculeo, C.; Arnim, G.; et al. Identifying Deficiencies in National and Foreign Medical Team Responses through Expert Opinion Surveys: Implications for Education and Training. Prehosp. Disaster Med. 2015, 30, 224.
26. Burkle, F.M., Jr. The development of multidisciplinary core competencies: The first step in the professionalization of disaster medicine and public health preparedness on a global scale. Disaster Med. Public Health Prep. 2012, 6, 10–12.
27. WHO Ebola Response Team. Ebola virus disease in West Africa—the first 9 months of the epidemic and forward projections. N. Engl. J. Med. 2014, 371, 1481–1495.
28. Ragazzoni, L.; Ingrassia, P.L.; Echeverri, L.; Maccapani, F.; Berryman, L.; Burkle, F.M., Jr.; Corte, F.D. Virtual Reality Simulation Training for Ebola Deployment. Disaster Med. Public Health Prep. 2015, 9, 543–546.
29. Pourhosseini, S.S.; Ardalan, A.; Mehrolhassani, M.H. Key Aspects of Providing Healthcare Services in Disaster Response Stage. Iran J. Public Health 2015, 44, 111–118.
30. Global Health Workforce Alliance, WHO, IFRC, UNICEF, UNHCR. Scaling-Up the Community-Based Health Workforce for Emergencies. 2011. Available online: https://www.who.int/workforcealliance/knowledge/resources/chwstatement/en/ (accessed on 1 February 2021).
31. Cometto, G.; Buchan, J.; Dussault, G. Developing the health workforce for universal health coverage. Bull. World Health Organ. 2020, 98, 109–116.
32. Belfroid, E.; Roβkamp, D.; Fraser, G.; Corien, S.; Aura, T. Towards defining core principles of public health emergency preparedness: Scoping review and Delphi consultation among European Union country experts. BMC Public Health 2020, 20, 1482.
33. Pyda, J.; Patterson, R.H.; Caddell, L.; Wurdeman, T.; Koch, R.; Polatty, D.; Card, B.; Meara, J.; Corlew, D.S. Towards resilient health systems: Opportunities to align surgical and disaster planning. BMJ Glob. Health 2019, 4, e001493.
34. Teklehaimanot, H.D.; Teklehaimanot, A. Human resource development for a community-based health extension program: A case study from Ethiopia. Hum. Resour. Health 2013, 11, 39.
35. Varpilah, S.T.; Safer, M.; Frenkel, E.; Baba, D.; Massaquoi, M.; Barrow, G. Rebuilding human resources for health: A case study from Liberia. Hum. Resour. Health 2011, 9, 11.
36. Fujita, N.; Zwi, A.B.; Nagai, M.; Akashi, H. A comprehensive framework for human resources for health system development in fragile and post-conflict states. PLoS Med. 2011, 8, e1001146.
37. Shaw, R. Community-Based Disaster Risk Reduction. Oxford Research Encyclopedia of Natural Hazard Science. 2016. Available online: https://oxfordre.com/naturalhazardscience/view/10.1093/acrefore/9780199389407.001.0001/acrefore-9780199389407-e-47 (accessed on 1 February 2021).
38. National Research Council. Chapter: 5 Building Local Capacity and Accelerating Progress: Resilience from the Bottom Up. In Disaster Resilience: A National Imperative; The National Academies Press: Washington, DC, USA, 2012; pp. 117–158.
39. Van Niekerk, D.; Nemakonde, L.D.; Kruger, L.; Forbes-Genade, K. Community-Based Disaster Risk Management. In Handbook of Disaster Research; Rodríguez, H., Donner, W., Trainor, J., Eds.; Springer: Cham, Switzerland, 2018.

40. McNeish, R.; Rigg, K.K.; Tran, Q.; Hodges, S. Community-Based Behavioral Health Interventions: Developing Strong Community Partnerships. Eval. Program Plan. 2019, 73, 111–115.
41. Chibanda, D.; Weiss, H.A.; Verhey, R.; Simms, V.; Munjoma, R.; Rusakaniko, S. Effect of a Primary Care–Based Psychological Intervention on Symptoms of Common Mental Disorders in Zimbabwe: A Randomized Clinical Trial. JAMA 2016, 316, 2618–2626.
42. Rigg, K.K.; Engelman, D.; Ramirez, J. A Community-Based Approach to Primary Health Care. In Dimensions of Community-Based Projects in Health Care; Arxer, S., Murphy, J., Eds.; International Perspectives on Social Policy, Administration, and Practice; Springer: Cham, Switzerland, 2018.
43. Phinse, P.; Srinivasan, K.; Neetu, P. Community-based interventions for health promotion and disease prevention in noncommunicable diseases: A narrative review. J. Educ. Health Promot. 2018, 7.
44. Chan, E.Y.Y. Bottom-up disaster resilience. Nat. Geosci. 2013, 6, 201.
45. Rosenbaum, S.J.D. Principles to Consider for the Implementation of a Community Health Needs Assessment Process. Department of Health Policy School of Public Health and Health Services, George Washington University. 2013. Available online: https://hsrc.himmelfarb.gwu.edu/sphhs_policy_facpubs/863 (accessed on 1 February 2021).
46. Dennis, S.; Hetherington, S.A.; Borodzicz, J.A.; Hermiz, O.; Zwar, N.A. Challenges to establishing successful partnerships in community health promotion programs: Local experiences from the national implementation of healthy eating activity and lifestyle (HEALTM) program. Health Promot. J. Aust. 2015, 26, 45–51.
47. Nicholls, K.; Picou, S.; McCord, S. Training Community Health Workers to Enhance Disaster Resilience. J. Public Health Manag. Pract. 2017, 23, S78–S84.
48. World Health Organization. WHO Guideline on Health Policy and System Support to Optimize Community Health Worker Programmes. 2018. Available online: https://www.who.int/hrh/resources/health-policy-system-support-hw-programmes/en/ (accessed on 25 February 2021).
49. World Health Organization. Comprehensive Safe Hospital Framework. 2015. Available online: https://www.who.int/publications/i/item/comprehensive-safe-hospital-framework (accessed on 1 February 2021).
50. World Health Organization. Global Strategy on Human Resources for Health: Workforce 2030. Available online: https://www.who.int/hrh/resources/pub_globstrathrh-2030/en/ (accessed on 1 February 2021).
51. World Health Organization: Emergency Medical Team. Available online: https://www.who.int/emergencies/partners/emergency-medical-teams (accessed on 1 February 2021).
52. World Organization and International Council of Nurses. ICN Framework of Disaster Nursing Competencies. Geneva; ICN. 2009. Available online: https://www.icn.ch/sites/default/files/inline-files/ICN_Disaster-Comp-Report_WEB_final.pdf 9 (accessed on 1 February 2021).
53. Hutton, A.; Veenema, T.G.; Gebbie, K. Review of the International Council of Nurses (ICN) Framework of Disaster Nursing Competencies. Prehosp. Disaster Med. 2016, 31, 680–683.
54. World Health Organization. OpenWHO. 2020. Available online: https://openwho.org/ (accessed on 24 March 2021).
55. World Health Organization. Global Outbreak Alert and Response Network. Available online: https://extranet.who.int/goarn/ (accessed on 1 February 2021).
56. Chan, E.Y.Y.; Murray, V. What are the health research needs for the Sendai Framework? Lancet 2017, 390, e35–e36.

أفضل الممارسات في إدارة الصحة للتعامل مع حالات الطوارئ الصحية العامة، بما في ذلك الأوبئة والكوارث الطبيعية: مراجعة

الملخص

الخلفية :يعد دمج إدارة مخاطر الطوارئ والكوارث الصحية (Health EDRM) في أنظمة الرعاية الصحية، ولا سيما التمريض، أمرًا

أساسيًا لتعزيز القدرة على الصمود في مواجهة حالات الطوارئ الصحية العامة. وقد أبرزت جائحة COVID-19 الدور الحاسم للممرضين والعاملين الصحيين المجتمعيين في إدارة الأزمات الصحية.

الطرق :اعتمدت هذه الدراسة على مراجعة شاملة للأدبيات، ودراسات حالة، ومشاورات مع خبراء لتحديد أفضل الممارسات والكفاءات اللازمة لتطوير قوة عاملة فعالة في مجال إدارة مخاطر الطوارئ والكوارث الصحية. ركزت الدراسة على برامج التدريب، وإشراك الأطراف المعنية، والمشاركة المجتمعية.

النتائج :كشفت النتائج عن فجوات كبيرة في كفاءات وتدريب القوى العاملة، خصوصًا فيما يتعلق بأدوار العاملين الصحيين المجتمعيين (CHWs) والممرضين أثناء الكوارث. وأبرزت البرامج الناجحة أهمية اتباع نهج يركز على الناس، وتعزيز التعاون بين مختلف الأطراف المعنية لتحسين الجاهزية والاستجابة للكوارث. كما حددت الدراسة الكفاءات الأساسية التي يجب دمجها في أطر التدريب لتمكين الكوادر التمريضية وتحسين نتائج إدارة الكوارث.

الخلاصة :يتطلب تعزيز قوة العمل في مجال إدارة مخاطر الطوارئ والكوارث الصحية التزامًا استراتيجيًا لتطوير الكفاءات الأساسية، وتحسين برامج التدريب، وتعزيز التعاون بين المهنيين الصحيين والمجتمعات. ومن خلال إعطاء الأولوية لمشاركة الممرضين والعاملين الصحيين المجتمعيين، يمكن لأنظمة الرعاية الصحية تحسين قدرتها على الاستجابة بفعالية للطوارئ، مما يحمي الصحة العامة ويعزز القدرة على الصمود.

الكلمات المفتاحية :إدارة مخاطر الطوارئ والكوارث الصحية، التمريض، تطوير القوى العاملة، العاملون الصحيون