Journal of Positive Psychology & Wellbeing http://journalppw.com
2022, Vol. 6, No. 3, 359 – 362 ISSN 2587-0130

Operating Room Technician, Nurses, and Paramedic with the Support of Healthcare Administration in Management of Disasters

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Abstract

The literature offers significant insights into the various aspects of disaster preparedness among operating room nurses in the event of earthquake disasters. These findings can be utilized by nursing managers, paramedics, and operating room staff in order to develop effective strategies and provide support in areas such as improving knowledge and educational level, enhancing skills, strengthening plans and managerial structures, enhancing equipment preparedness, and explaining resilience strategies in order to improve the disaster preparedness of operating room nurses and the disaster response teams of medical organizations.

Keywords*: disaster preparedness, paramedics, medical organizations.*

Introduction

Both natural and man-made disasters, regardless of their cause, pose obstacles to the sustainable development of communities. The occurrence and regularity of events is a repeating phenomenon worldwide. The repercussions and ramifications of these events on several facets of human existence are deleterious and occasionally have altered individuals' lives [1].

During an unavoidable event, individuals are entitled to a prompt and efficient reaction from medical teams, and nurses are crucial members of disaster response units. Nurses constitute a significant proportion of healthcare workers and have been integral in the disaster management cycle since Florence Nightingale administered care to the wounded and sick during the Crimean War up until the current day. Nurses are regarded as crucial human assets in response to unforeseen circumstances.

Hence, the possession of catastrophe knowledge and abilities by individuals contributes to the advancement of societies in terms of their economic, social, and cultural growth [2].

In light of the recent events over the past ten years, there is a strong focus on creating a well-organized and thorough plan to enhance medical reactions to disasters. Telemedicine serves as a valuable instrument to mitigate the consequences of a disaster and enhance medical response [4]. Telemedicine is based on the use of information and communications technology to provide therapeutic services. Telemedicine can be highly beneficial in catastrophes and disasters for the treatment and assessment of injuries. ICT in healthcare has emerged as a global political priority. Over the past few decades, the progress of information technology has presented significant opportunities for nurses globally to stay informed about patients' circumstances. This has resulted in the emergence of new responsibilities for nurses and an enhanced ability to make decisions in the delivery of nursing care [5]. Telenursing encompasses various forms of nursing care and services that can be delivered remotely, utilizing a diverse array of communication technologies such as telephone, facsimile, email, internet, and video clips. These technologies are employed to overcome the limitations of time and location, hence enhancing the provision of nursing care [5].

The effectiveness of the disaster response phase hinges on the prompt arrival and implementation of relief and rescue efforts. Consequently, the utilization of telemedicine technology during emergencies has improved the standard of healthcare delivered. In recent decades, the incorporation of telemedicine programs into relief and rescue operations has been found to be successful in providing help to populations during disasters. Utilizing telemedicine in the aftermath of a disaster provides the advantage of implementing organized treatment within a compromised health system [6].

In the subsequent decade, telemedicine was employed in several manners to address natural calamities, including earthquakes, tsunamis, and storms. The average proficiency of hospitals in Kerman Province in conducting surge capacity programs during catastrophes was found to be inadequate in four areas: equipment, physical space, human resources, and applied programs [7]. Therefore, telemedicine can be utilized to augment the ability of the health-care system to handle a sudden increase in demand, as well as to improve the swiftness and efficiency of medical interventions. Disasters are unavoidable aspects of human existence, and due to the scarcity of specialized nurses in disaster zones, the implementation of a telenursing program will offer a fresh avenue for providing treatment. Therefore, it is crucial to integrate nursing care with information and communication technology (ICT) in order to assist victims of disasters [8].

Review:

An examination of the instrument processing system ought to be carried out in order to evaluate the capacity to supply sterile instruments for a variety of operations at various times of the day. In the event that instruments are routinely processed off-site or in large quantities during the night, some special considerations might be necessary. When the situation is very dire, this may involve the utilization of alternate sterilizing methods. A plan should include methods of resupply or a special stock that is only to be used in the event of a disaster. Mass casualty situations may need the utilization of more than the regular amounts of disposable materials. The DASH tool, which stands for Disaster Available Supplies in Hospitals, was developed by the Administration for Strategic Preparedness and Response. This tool is designed to assist hospitals in determining the amount of equipment and supplies that they need stockpile in preparation for trauma-specific disasters. This instrument should not be utilized as a comprehensive list of supplies; rather, it should be utilized as an aid to the

process of planning. It is important for hospitals to have in stock the necessary equipment and supplies for patients who they do not typically treat, such as youngsters and patients who have suffered burns [9,10].

It will be essential for operating room personnel to be competent both as individuals and as a group in the event of a rise in surgical procedures. The ACS Disaster Management and Emergency Preparedness course would be beneficial for all members of the team, but especially for those who are responsible for developing plans. Damage control surgical procedures should be included in the intentional planning for disaster or mass casualty occurrences. These techniques should be learned by all surgeons, not just trauma surgeons, because it is assumed that all surgeons will have fundamental damage control abilities [11]. Two excellent examples of courses that can be of assistance in the development and maintenance of these abilities are the Advanced Surgical abilities for Exposure in Trauma and the Advanced Trauma Operative Management courses offered by the American College of Surgeons (ACS). OR nurses and surgical technicians should undergo cross-training throughout the operating room to ensure that they are able to fill in for any function that may be required. In order to maintain their proficiency in trauma resuscitation, personnel working in anesthesia should receive periodic training refreshers. In order to adequately prepare for a surgical surge, healthcare professionals such as nurse practitioners, physician assistants, medical technicians, and scrub technicians should all be given the opportunity to cross-train as surgical first assistants. The fact that operating room teams that collaborate on challenging cases on a regular basis would function more quickly and effectively in a crisis situation is something that should be acknowledged, and it is something that should be taken into consideration while planning for a surgical surge reaction. The identification of expecting patients and the provision of comfort care and ongoing observation may be initiated during the first and ongoing triage of patients [12]. This is done in order to offer care that could potentially save the lives of other patients.

The results of a thematic assessment of the existing literature revealed that there are considerable gaps in our understanding of leadership in disaster nursing. The lessons that were acquired from previous disaster experiences led to the conclusion that training and assistance are necessary for successful disaster response, crisis communications, and the development of distinct competences that are specific to the role. The behaviors of nurse leaders during catastrophes have been recognized as being inconsistent. It is possible that the activities that are performed in order to effectively lead staff could benefit from a reorganization, and the adoption of standards that are based on evidence could also be beneficial. However, there is a lack of preparedness [13], despite the fact that nursing ability to respond to crises is enormous.

The study of leadership in the 20th century has led to the development of distinct leadership concepts and the identification of characteristics and qualities that differentiated leaders from others. These characteristics and qualities were based on innate ability, skills, as well as contextual and situational elements. The attempts to describe crisis leadership competence in the context of public health catastrophes have proven to be exceedingly challenging. These issues may have answers that can be found in the measurement of hospital leaders who are experienced, competent, and skillful, and who are well suited to lead employees through chaotic and demanding events. Additionally, the answers may be found in the measurement of the perceptions of leadership held by those staff members that they lead. Leaders have the responsibility of motivating and demonstrating to followers that they should follow their lead, while also recognizing that trust is an essential component of an effective response to a crisis [13].

Conclusion:

An important step in developing education and training programs for disaster management and career development in crisis leadership is to identify the essential characteristics and functions. This includes various teams such as paramedics, nurses, operating theater staff, and administrative support to facilitate effective action. This application of idea mapping has proven beneficial in addressing crucial competencies and addressing discrepancies in the frequencies that arise in hospital leadership. Concept mapping was employed to identify leadership abilities that enhance nursing and hospital leadership excellence in urban crisis situations. This was done to ensure the continued efficacy of clinical care systems and to enhance patient care and outcomes. Additionally, it can be utilized to facilitate the growth of instructional programs for disaster occurrences, as advised by the Centers for Medicare & Medicaid Services. Disasters have diverse requirements as they vary significantly based on factors such as time, location, and magnitude. During a severe emergency, it is imperative to exert significant efforts to guarantee that every individual receives appropriate treatment and that lives are safeguarded. An efficiently structured disaster preparedness strategy and active community involvement are essential for minimizing the consequences of a natural disaster. Disaster healthcare management is a structured approach that involves the use of administrative, organizational, and operational decision-making abilities to address the difficulties associated with preparing and mitigating the healthcare impacts of natural disasters. It is imperative to do a comprehensive study on the efficacy of disaster management in all countries prone to hazards.

Reference

[1] Nivolianitou Z, Synodinou B (2006). Towards emergency management of natural disasters and critical accidents: The Greek experience. J Environ Manage, 92: 2657–2665.

[2] Leroy SAG (2006). From natural hazard to environmental catastrophe: past and present. Quat Int, 158: 4–12.

[3] Bello OM, Aina YA (2014). Satellite remote sensing as a tool in disaster management and sustainable development: towards a synergistic approach. Proc Soc Behav Sci, 120: 365–373.

[4] Brien GO, Keefe PO, Rose J, et al. (2006). Climate change and disaster management. Disasters, 30: 64–80.

[5] Rodrıguez JT, Vitoriano B, Montero JA (2011). General methodology for data-based rule building and its application to natural disaster management. Comput Oper Res, 3: 863–873.

[6] Melgarejo LF, Lakes T (2014). Urban adaptation planning and climate-related disasters: An integrated assessment of public infrastructure serving as temporary shelter during river floods in Colombia. Int J Disaster Risk Reduction, 9: 147–158.

[7] Ardalan A, Mazaheri M, Vanrooyen M, et al. (2011). Post-disaster quality of life among older survivors five years after the Bam earthquake: implications for recovery policy. Ageing Soc, 31: 179–196.

[8] Shrestha SS, Sosin DM, Meltzer MI (2012). Planning for baseline medical care needs of a displaced population after a disaster. Disaster Med Public Health Preparedness, 6: 335–341.

[9] Kalanlar B. Effects of Disaster nursing education on nursing students' knowledge and preparedness for Disasters. Int J Disaster risk Reduct. 2018;28:475–480. doi: 10.1016/j.ijdrr.2017.12.008.

[10] Kayano R, Chan EY, Murray V, Abrahams J, Barber SL. 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(7):1232. doi: 10.3390/ijerph16071232.

[11] Mao X, Fung OWM, Hu X, Loke AY. Psychological impacts of Disaster on rescue workers: a review of the literature. Int J Disaster Risk Reduct. 2018;27:602–617. doi: 10.1016/j.ijdrr.2017.10.020.