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The Role of Nursing in Crises and Disasters in Health Facilities

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Abstracts

KSA (Kingdom of Saudi Arabia) is prone to certain crisis and disasters in the form of earthquakes, uncontrollable sand storms, epidemics, terrorist attacks, etc. in these condition the rescue teams, medical staff, healthcare staff, etc. are required to respond. Also, with these people nurses are also required to be engaged, moreover maximum pressure is being born by nurses in the medication process, most of the times (during crisis) they have to attend the patients in the field which is again a risky process. Most of the developed and developing countries are working on the training of their health workers to prepare them for the conditions of crisis and disasters. This paper evaluates the role of nurses during the crisis period, this study is based on primary data and evaluates the collected data using one-way ANOVA.

Keywords: nurses, Disaster, crisis, preparedness, Saudi Arabia.

1. Introduction

Communities all over the world are suffering the impacts of characteristic catastrophes, and Saudi Arabia is no exclusion to this run the appear. Concurring to the Center for Ask almost on the think about of illness transmission of Calamities, 56 calamities have happened in Saudi Arabia since 1980. These fiascos have butchered around 4,700 people, really hurt 34,000 others, and caused USD 1.87 billion in hurt. As a result of these fiascos, Saudi recuperating centers have gone up against inconveniences related to organization and capacity sets. The reaction of healthcare specialists, particularly therapeutic orderlies, is significant in soothing the preventing impact of fiascos on victims' healthcare comes about, particularly given the repeat of catastrophes.

Nurses are on the front lines of overseeing with such issues. Therapeutic specialists are depended with the duty of passing on secure and competent healthcare to the common open inside the event of a catastrophe. In this way, in organize to optimize clinic resources, each sustain must have a slightest level of capability in managing with such circumstances. In show disdain toward of the reality that catastrophe course of action could be a essential component of nursing instruction, with a specific center on fundamental measures and the care of casualties, therapeutic caretakers have little presentation to and data of emergency responses.

Communities all around are continuously defenseless to the impacts of typical calamities, and Saudi Arabia is no exclusion. Since 1980, 56 calamities have happened in Saudi Arabia, coming around in around 4,700 fatalities, 34,000 wounds, and hurts measuring to USD 1.87 billion. These

events have highlighted the critical challenges gone up against by Saudi recuperating centers in disaster organization and emphasize the require for healthcare specialists, particularly therapeutic caretakers, to be well-prepared to direct adversarial impacts on healthcare outcomes.

Emergency therapeutic caretakers or the medical caretakers play a pressing portion in misfortune response due to their cutting-edge position in healthcare delivery amid catastrophes. In show disdain toward of the fundamental joining of disaster arrangement in nursing instruction, there's a vital hole inside the commonsense information and introduction of restorative orderlies to crisis response scenarios. Considers have showed up that various restorative orderlies require the required capability and certainty in taking care of crisis circumstances effectively.

The evaluation of educator needs among Ens is critical for advancing their adversity status. Current nursing instructive module habitually do not palatably cover emergency availability, driving to a disparity between the theoretical data and down to soil capacities required in the midst of calamities. For occasion, because it was a small rate of therapeutic specialists report feeling certain in their capacities to supervise bioterrorism scenes or other large-scale emergencies.

Recent evaluations reveal that in fact experienced therapeutic caretakers show basic insufficiencies in calamity administration competencies, checking gaps in districts such as the event command system (ICS), ethical triage, the consider of infection transmission and surveillance, cleaning procedures, communication amid crises, and mental care for disaster casualties. Tending to these cleft through centered on educator trade is essential for moving forward the for the most part status and response capabilities of medical attendants in Saudi Arabia.

To address these insufficiencies, this consider proposes a comprehensive planning program custom-made to the specific needs of Saudi medical attendants. The program consolidates fundamental components such as hands-on drills and reenactments, which have been showed up to through and through make strides catastrophe response aptitudes. The proposed instructive programs point to bridge the cleft between current competencies and the down to soil demands of catastrophe organization. By moving forward, the catastrophe preparation of medical attendants, we are going ensure a more incredible and compelling healthcare response in the

midst of crises, inevitably advancing diligent comes about and flexibility interior the healthcare system.

2. Review of Literature:

Later considers on nursing instruction have put a solid accentuation on being arranged for fiascos. The Swedish medical attendants were as it were to some degree prepared for any kind of crisis. In expansion, a think about conducted in provincial Texas uncovered that as it were 10% of medical attendants illustrated certainty in assessing and diagnosing patients who had been uncovered to bioterrorism chemicals. Al Khalaileh et al (2020) 65% of medical caretakers in Jordan detailed being insufficiently arranged for a emergency. Nursing staff had a moo cruel level of status for fiascos. Another think about found that there was a critical information hole between nursing school grads and their genuine needs in terms of crisis readiness. Medical attendants were as it were negligibly prepared to bargain with any kind of crisis. Al Thobaity et al (2015) Later ponders have found that medical caretakers, indeed after broad preparing and down to earth involvement, proceed to report critical insufficiencies in crisis readiness and competency. Al Dulijand et al (2023) They moreover have a constrained understanding of calamity administration arranging and the application of catastrophe rules. A few of the analysts assessed the capability of scholastic crisis divisions (EDs) in central Saudi Arabia to treat pediatric patients agreeing to universal measures. This consider included visits, assessments, and interviews in four scholastic divisions. The discoveries uncovered noteworthy crevices: fundamental components for pediatric crisis treatment were discernibly missing within the 193 criteria inspected. Alfred et al (2015) As it were two centers had a specialized pediatric revival bed, none had a committed pediatric crash cart, and fundamental hardware such as weighing scales and hypothermia screens were missing. The normal score over all centers was 53%, with outstanding insufficiencies in gear and drug accessibility (49.6%). Besides, none of the centers had created arrangements for family-centered care or specialized strategies for overseeing pediatric crises. Alhajjaj et al (2017) This underscores the basic require for considerable changes in foundation, arrangements, gear, and readiness to satisfactorily handle pediatric crises in these scholastic EDs.

Some analysts surveyed the readiness of ENs in Saudi Arabia for catastrophes, given the country's history of characteristic and man-made catastrophes. Information was collected from 72 members at two government healing centers in Riyadh, with a reaction rate of 31.7%. Studies appeared that as it were 60% of medical attendants felt certain in their parts after completing preparing inside the final year, in spite of most understanding their obligations after checking on the fiasco arrange. Certainty was higher among those who had taken part in mass casualty or fiasco preparing programs compared to those who had not. Shockingly, as it were 26% of respondents felt certain after encountering a genuine calamity, with no critical distinction between those who had and those who had not experienced such occasions. AlHarbi et al (2023) The think about concludes that medical attendants have restricted calamity involvement, reflected in their moo certainty levels after genuine catastrophe inclusion. This highlights the require for improved catastrophe preparing to guarantee medical caretakers are well-prepared. The discoveries emphasize the significance of moving forward instruction and preparing

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programs for ENs in Saudi Arabia to superior plan them for different calamity scenarios. The nonattendance of disaster-related center competencies in nurse training educational program may be a contributing figure to the seen need of availability among medical caretakers. Various researchers have since underscored the need for nursing educational modules designers to consolidate fiasco instruction components into their educational program at both the graduate and undergrad levels. Farokhzadian et al (2024) Overhauled crisis planning information and capacities must be obtained through instruction for medical caretakers to preserve competency in this zone. After getting crisis preparing, undergrad nursing understudies detailed tall levels of confidence and ability administration within the confront of calamities, concurring to a study on crisis readiness. Subsequently, in arrange to assess the show state of crisis readiness among medical caretakers in Saudi Arabia and define a reasonable educational module to bridge this insufficiency in competencies, it is basic to attempt an crisis needs appraisal.

3. Research Population:

Concurring to the discoveries of this consider, Saudi Ends require essential aptitudes within the zone of disaster preparedness. Considering that the request for nursing staff is altogether higher amid times of crisis, the group of onlookers that this ponder extraordinary to target comprises of ENs who are within the moment review. The avocation for centering on enlisted medical attendants is their capacity to facilitate coordination among healing center staff, casualties, and families within the occasion of a catastrophe, as well as convey basic long-term help and crisis therapeutic care. This is often especially significant given the basic nature of clear communication in calamity arranging and reaction. Through the usage of clinical strategies and the administration of authority, they play a vital portion in preparation for crisis circumstances. In expansion to this, they put an accentuation on explanatory and basic considering, and they make beyond any doubt that budgetary duty and responsibility are met. Crisis nursing requires the capacity to utilize data, basic considering, and decision-making in unpleasant work situations. Crucial nursing competencies and abilities instructed in common nursing educational module are deficiently to plan ENs for such circumstances. As a result, distinctive nursing schools have come up with their claim uncommon courses for EN preparing. Numerous healthcare educates and analysts have underlined the require for preparing ENs over a long time. All things considered, various ponders have recorded that ENs are insufficient in fundamental information and capacities to handle crises with viability. In a few occasions, ENs were not indeed provided with the foremost fundamental instructive materials or chances for preparing to development their abilities. Efforts have been made to make catastrophe planning and arranging programs with the point of moderating the adverse impacts of catastrophes. Medical attendants subject themselves to peril in any misfortune. Due to a need of accessible writing on nursing models for calamity reaction and readiness, the most objective of this ENA was to supply prove regarding the essential instruction and preparing to improve the capacities of Saudi nurses in catastrophe administration. Most medical attendants feel ill-equipped to handle calamities due to the deficiently scope of crisis readiness, mass casualties, and mass clearings within the nursing educational programs. The essential objective of the display investigate was to supply up-todate data on regions where the nursing educational modules may well be upgraded. Most medical

caretakers have small information and comprehension of their obligations in catastrophe reaction. They need commonsense encounter in catastrophe arranging and have a restricted get a handle on of disastrous occasions. In spite of the fact that a few medical attendants have experienced calamity instruction and preparing, there were critical concerns over the fittingness, pertinence, and accessibility of these courses. Medical caretakers with progressed preparing and broad involvement in post-disaster treatment were expected to have raised levels of skill. Medical attendants might get focal points from a comprehensive, research-supported program for catastrophe instruction and preparing encouraged by this ENA.

4. Research Process:

Data Collection

The nature of this study is descriptive and based on primary data, as the study is based on the assessment of preparedness of nurses in the conditions of disasters and crisis. The researcher has contacted respondents from some of the major cities in Saudi Arabia and collected the required information.

Total sample of the study appeared to be 150 respondents; this data was extracted from the records of selected hospitals. Researcher has prepared a detailed questionnaire to contact the respondents and the mode of contact was face to face. In order to save the time and get precise responses, most of the questions were based on 5-point likert scale.

Along with the primary data some of the secondary data was also referred to get the concept of disaster management, crisis management and role of nurses in the same. Some of respective sources were newspaper articles, journals, internet sources, etc.

Sample Size

Data of 150 respondents was considered for the study.

Statistical Measure

☐ ANOVA (One Way).

5. Data Analysis and Interpretation

Test Results

On the basis of Experience	F	Sign
Known to Ethical practices during crisis	3.992	2.108
Know how to work for decontamination	2.573	2.029
Learned the communication process during crisis	5.644	5.762
Learned to handle psychological pressure during crisis	.365	.178
Learned to handle critical cases during crisis period	.784	.647
Learned to assess cases during crisis period	2.548	2.661
May become self-regulated during crisis	1.261	1.917
Known to standard healthcare climate	2.016	2.814
Perceived preparedness	1.595	1.004

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On the basis of Training Elements		
Known to Ethical practices during crisis	.194	.214
Know how to work for decontamination	.413	.442
Learned the communication process during crisis	.373	.551
Learned to handle psychological pressure during crisis	1.732	5.750
Learned to handle critical cases during crisis period	2.626	2.773
Learned to assess cases during crisis period	2.962	2.642
May become self-regulated during crisis	3.583	5.542
Known to standard healthcare climate	1.253	1.863
Perceived preparedness	1.901	.052
On the Basis of Income		
Known to Ethical practices during crisis	.417	1.083
Know how to work for decontamination	2.043	1.269
Learned the communication process during crisis	1.045	.716
Learned to handle psychological pressure during crisis	1.006	.614
Learned to handle critical cases during crisis period	.801	.052
Learned to assess cases during crisis period	2.547	2.072
May become self-regulated during crisis	0.987	0.019
Known to standard healthcare climate	1.784	.647
Perceived preparedness	.548	.661
On the Basis of Shifts		
Known to Ethical practices during crisis	1.082	.970
Know how to work for decontamination	2.360	.782
Learned the communication process during crisis	1.355	.956
Learned to handle psychological pressure during crisis	2.660	3.077
Learned to handle critical cases during crisis period	.313	2.516
Learned to assess cases during crisis period	.503	1.080
May become self-regulated during crisis	.445	1.017
Known to standard healthcare climate	.316	.814
Perceived preparedness	.021	.071

Interpretation:

As can be seen from the above given table of analysis, the results are based on the ANOVA test; where the thumb rule is that if the Sign value is more than the F value then the point in question is accepted or else rejected. In most of the cases stated above the responses are positive. Though in some of the cases the responses are negative as well i.e., communication during crisis period, self-regulation during crisis period and handle the psychological pressure during crisis period.

Hence it can be stated that most of the respondents (nurses) are agreed to the point in question and have some knowledge about the conditions during crisis, but then again, the researcher observed that more training and knowledge is required to be given.

6. Conclusion:

The consistency and escalated of catastrophes require that healthcare offices prepare their representatives to handle large-scale emergencies and catastrophes. Tragically, inquire about has appeared that ENs are less arranged to bargain with the uncommon issues that calamities display. An endeavor was made within the current ENA to pick up an understanding of the shortcomings

that exist within the competencies of Ens in a assortment of competency spaces related to calamity readiness. For the reason of information collection, point by point survey was utilized due to its tall legitimacy and unwavering quality. The information were factually analyzed, and the comes about appeared that medical caretakers working at a major educating clinic in Saudi Arabia needed readiness for fiascos in all of the ability spaces that were found. Agreeing to the discoveries of the consider, the subordinate variable was seen planning, which was decided by the generally cruel score of these capacities. Considering the destitute level of readiness for calamities that were found, it is essential to audit the instructing materials and strategies that are as of now in put in order to way better prepare medical attendants with proficient mastery within the administration of emergency circumstances. It is, subsequently, conceivable that the discoveries would donate experimental establishments for the advancement of crisis arrangement instruction and preparing programs for engineers in Saudi Arabia.

WORKS CITED

- Al Khalaileh MA, Bond E, and Alasad JA (2012). Jordanian nurses' perceptions of their preparedness for disaster management. International Emergency Nursing, 20(1): 14-23. https://doi.org/10.1016/j.ienj.2011.01.001 PMid:22243713
- Al Thobaity A, Plummer V, Innes K, and Copnell B (2015). Perceptions of knowledge of disaster management among military and civilian nurses in Saudi Arabia. Australasian Emergency Nursing Journal, 18(3): 156-164. https://doi.org/10.1016/j.aenj.2015.03.001 PMid:25864385
- AlDulijand NA, Al-Wathinani AM, Abahussain MA, Alhallaf MA, Farhat H, and Goniewicz K (2023). Sustainable healthcare resilience: Disaster preparedness in Saudi Arabia's eastern province hospitals. Sustainability, 16(1): 198. https://doi.org/10.3390/su16010198
- Alfred D, Chilton J, Connor D, Deal B, Fountain R, Hensarling J, and Klotz L (2015). Preparing for disasters: Education and management strategies explored. Nurse Education in Practice, 15(1): 82-89. https://doi.org/10.1016/j.nepr.2014.08.001PMid:25578381
- Alhajjaj FS and Aldamigh AS (2017). Assessment of readiness of academic emergency departments in the central region of Saudi Arabia to receive a sick child. International Journal of Health Sciences, 11(3): 4-8.
- AlHarbi RS and HAlqahtani HM (2023). Nurse management and preparedness for disasters: A systematic review. Journal of Population Therapeutics and Clinical Pharmacology, 30(1): 619-629. https://doi.org/10.53555/jptcp.v30i1.4947
- Alim S, Kawabata M, and Nakazawa M (2015). Evaluation of disaster preparedness training and disaster drill for nursing students. Nurse Education Today, 35(1): 25-31. https://doi.org/10.1016/j.nedt.2014.04.016 PMid:24832532
- Alruwaili AS, Islam MS, and Usher K (2023). Factors influencing hospitals' disaster preparedness in the Eastern Province of Saudi Arabia. Disaster Medicine and Public Health Preparedness, 17: e301. https://doi.org/10.1017/dmp.2022.261 PMid:36785527
- Alshehri B (2016). Emergency nurses' preparedness for disaster in the Kingdom of Saudi Arabia. Journal of Nursing Education and Practice, 7(3): 101-114. https://doi.org/10.5430/jnep.v7n3p101
- Baack ST (2011). Analysis of Texas nurses' preparedness and perceived competence in managing disasters. Ph.D. Dissertation, University of Texas at Tyler, Tyler, USA.
- Barnes MD, Hanson CL, Novilla LM, Meacham AT, McIntyre E, and Erickson BC (2008). Analysis of media agenda setting during and after Hurricane Katrina: Implications for emergency preparedness, disaster response, and disaster policy. American Journal of Public Health, 98(4): 604-610. https://doi.org/10.2105/AJPH.2007.112235PMid:18309133 PMCid:PMC2376984
- Beauchamp TL and Childress JF (2001). Principles of biomedical ethics. Oxford University Press, Oxford, UK. Bistaraki A, Waddington K, and Galanis P (2011). The effectiveness of a disaster training

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- programme for healthcare workers in Greece. International Nursing Review, 58(3): 341-346. https://doi.org/10.1111/i.1466-7657.2011.00898.x
- Buyum A, Dubruiel N, Torghele K, Alperin M, and Miner KR (2009). Can summits lead to curricula change? An evaluation of emergency preparedness summits for schools of nursing in Georgia. The Journal of Continuing Education in Nursing, 40(5): 210-215. https://doi.org/10.3928/00220124-20090422-04
- Chapman K and Arbon P (2008). Are nurses ready? Disaster preparedness in the acute setting. Australasian Emergency Nursing Journal, 11(3): 135-144. https://doi.org/10.1016/j.aenj.2008.04.002
- Coyle GA, Sapnas KG, and Ward-Presson K (2007). Dealing with disaster. Nursing Management, 38(7): 24-29. https://doi.org/10.1097/01.NUMA.0000281132.18369.bd
- Duong K (2009). Disaster education and training of emergency nurses in South Australia. Australasian Emergency Nursing Journal, 12(3): 86-92. https://doi.org/10.1016/j.aenj.2009.05.001
- Dyson L, Hedgecock B, Tomkins S, and Cooke G (2009). Learning needs assessment for registered nurses in two large acute care hospitals in Urban New Zealand. Nurse Education Today, 29(8): 821-828. https://doi.org/10.1016/j.nedt.2009.04.007 PMid:19457599
- Farokhzadian J, Mangolian Shahrbabaki P, Farahmandnia H, Taskiran Eskici G, and Soltani Goki F (2024). Nurses' challenges for disaster response: A qualitative study. BMC Emergency Medicine, 24: 1. https://doi.org/10.1186/s12873-023-00921-8