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Knowledge, Skills, Competencies, and Psychological Capacities of Nurses for Disaster Preparedness: A Future Direction

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Purpose: The aim of this review is to identify the gap in previous research about disaster preparedness of nurses.

Methods: The review protocol was prepared using the Preferred Reporting Items for Systematic Review and Meta-Analyses Protocol (PRISMA-P) guidelines. A systematic review was conducted for research articles between 2013 and 2018, which included five databases: PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus, MedLine via EbscoHost, and ScienceDirect. The articles were published in English, peer reviewed, and including only nurses in the study process. The keywords were: disaster preparedness, nurses/nursing, knowledge, skills, competencies, and resilience. Secondary search was performed based on the reference lists of articles identified from the primary search, and reviewed based on the quality appraisal process of Mixed Methods Appraisal Tool (MMAT). The process aided to provide quality judgment yielding scores varying from a range of 25% that representing one criterion met to 100% that all criteria achieved.

Results: Eighteen studies, with 4,434 nurses involved, that met the inclusion criteria were included for analysis. Based on MMAT, one study scored 25%, five studies 50%, eight studies 75%, and four studies achieved 100%. Nurses have low to moderate level of disaster preparedness, and they are still in need for knowledge and skills training. The knowledge should focus on establishing competencies, clinical knowledge, and theoretical aspect of disasters, in particular about the bioterrorism. The clinical skills vary from basic skills such as personal protective equipment to advance care; also focusing on the full aspects of trauma care from stabilizing victims and triage to safe transfer and caring of victims in the hospital; and in addition about effective communication, self-confidence, and leadership. The dynamics of multidisciplinary team in the knowledge development and skills learning must be included in the program. Advanced learning methods should be used for active learning, such as using simulations and role plays as real as possible to enhance learning and improving self-confidence of nurses. Since the negative effects of disasters can impact on the psychological state of nurses as a result of work pressure and stressful situations, it is particularly important to enhance the psychological preparedness of nurses to assure their psychological well-being, as well as preventing possible post-traumatic symptoms in the future. In turn, they can provide effective counseling and humanitarian care to other victims of disaster. Mental health nurses may be deployed in the training to enhance and foster different psychological attributes and skills of nurses in the field and victims such as stress management, and measures in preventing post-traumatic stress disorder (PTSD).

Conclusion: In addition to knowledge, skills, and competencies in disaster response, the results of this review indicate the extra need for focusing more on nurses' psychological preparedness. There is a need for a comprehensive and frequent follow-up program with more efforts on the development of psychological preparedness to disasters for clinical nurses.

Title:

Knowledge, Skills, Competencies, and Psychological Capacities of Nurses for Disaster Preparedness: A Future Direction

Keywords:

disaster preparedness, nurses and psychological preparedness

References:

Alzahrani, F., & Kyratsis, Y. (2017). Emergency nurse disaster preparedness during mass gatherings: a cross-sectional survey of emergency nurses' perceptions in hospitals in Mecca, Saudi Arabia. *BMJ Open*, 7(4), e013563. doi:10.1136/bmjopen-2016-013563

Baack, S., & Alfred, D. (2013). Nurses' preparedness and perceived competence in managing disasters. *Journal of Nursing Scholarship*, 45(3), 281-287. doi:10.1111/jnu.12029

Jiang, L., He, H. G., Zhou, W. G., Shi, S. H., Yin, T. T., & Kong, Y. (2015). Knowledge, attitudes and competence in nursing practice of typhoon disaster relief work among Chinese nurses: a questionnaire survey. *International Journal of Nursing Practice*, 21(1), 60-69. doi:10.1111/ijn.12214

Labrague, L. J., Yboa, B. C., McEnroe-Petitte, D. M., Lobrino, L. R., & Brennan, M. G. (2016). Disaster Preparedness in Philippine Nurses. *Journal of Nursing Scholarship*, 48(1), 98-105. doi:10.1111/jnu.12186

Li, Y., Turale, S., Stone, T. E., & Petrini, M. (2015). A grounded theory study of 'turning into a strong nurse': Earthquake experiences and perspectives on disaster nursing education. *Nurse Education Today*, 35(9), e43-49. doi:10.1016/j.nedt.2015.05.020

Abstract Summary:

Disasters and their destruction effects are increasing worldwide. Nurses contribute the largest number of healthcare providers, and they have major roles in disaster response. A systematic review was conducted for future directions, eighteen studies highlighted the progressive need comprehensive preparedness especially psychological preparedness.

Content Outline:

Knowledge, skills, competencies, and psychological capacities of nurses for disaster preparedness. A future direction? A systematic Review

Abstract

Purpose: Disasters and their destruction effects are increasing worldwide. Nurses contribute the largest number of healthcare providers, and they have major roles in disaster response. They must have the sufficient knowledge and skills in respond to disasters. The aim of this review is to identify the gap in previous research about disaster preparedness of nurses.

Methods: The review protocol was prepared using the Preferred Reporting Items for Systematic Review and Meta-Analyses Protocol (PRISMA-P) guidelines. A systematic review was conducted for research articles between 2013 and 2018, which included five databases: PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus, MedLine via EbscoHost, and ScienceDirect. The articles were published in English, peer reviewed, and including only nurses in the study process. The keywords were: disaster preparedness, nurses/nursing, knowledge, skills, competencies, and resilience. Secondary search was performed based on the reference lists of articles identified from the primary search, and reviewed based on the quality appraisal process of Mixed Methods Appraisal Tool (MMAT). The process aided to provide quality judgment yielding scores varying from a range of 25% that representing one criterion met to 100% that all criteria achieved.

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Keywords: disaster preparedness, nurses, psychological preparedness.

Topic Selection:

Competencies in the Nursing Profession

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