

Competencies, Scope of Practice in Disaster

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Abstract: *This paper reviews the literature pertaining the core competencies in disaster nursing. This paper discusses competing issues of core competencies in disaster nursing; nursing education and competencies, nurses' perspectives on competencies in disaster nursing, nurses' experience and competencies in disaster nursing, and the need for specific competencies for each type of disaster. The appropriate standardized framework for disaster nursing core competencies should be utilized in the nursing practice worldwide and the ICN framework appears to be the most practical so far.*

Keywords: core competencies, disaster nursing, ICN framework

1. Introduction

Although humans can predict the weather through weather forecasting, but natural disasters are still almost unpredictable. One moment the wind may gently breeze and another moment it may suddenly become strong, violent, and dangerous. Man made disasters such as nuclear explosion are still able to be predicted, however, the effects may remain for several years. The nuclear explosion, for example, can draw severe and hazardous threat which can last up to five years after the nuclear attack and the radiation may last for hundreds of years (Atomic Archive, 2013). The complicated nature of disasters require the nurses to have specific competencies to be able to attend to adverse effects of disaster in the community (Loke & Fung, 2014).

Indeed, both natural disasters and man made disasters according to the World Health Organization and International Council of Nurses (2009), are hazardous to any country as they can cause detrimental side effects namely, injuries, death, trauma, infections, worsening of chronic disease, spread of disease, and psychological problems. These complications require competent nurses to attend to the community. History has demonstrated that nurses have been playing a very important role in attending to the individuals, groups and communities during emergency and disaster (Association of Public Health Nurse, 2007). When disaster occurs, nurses are usually at the top of the list among the health care team to respond to the disaster victims (Chan et al., 2010). Also, the health care team, specifically the nurses, are aware of the significance of improving their knowledge about the concepts and practice of disaster nursing (Fountain, et al., 2014). So, the core competencies among the nurses in disaster nursing is very important to ensure effective delivery of health care when a disaster strike.

2. Background

The word competencies is defined as "a combination of the essential knowledge, abilities, skills and values necessary for the practice of health promotion," (Shilton et al., 2001). In disaster nursing and emergency preparedness, competencies are crucial as the foundation for the educational plan (Veenema, 2007). The nurses must acquire certain competencies in disaster nursing to be able to deal with the complexities and scope of disasters (World Health Organization & International Council of Nurses, 2009). According to the World Health Organization and

International Council of Nurses (2009), the significance of core competencies in disaster nursing such as to; contribute to the formation of nurses worldwide, promote consistency in providing care, assist communication, promote confidence and a more professional approach, form mutual objectives, encourage a unified approach, increase the ability of nurses to work efficiently, and guide nurses to play their role effectively.

The International Council of Nurses (ICN) developed the ICN framework of Disaster Nursing Competencies in which comprises of four main areas; mitigation/prevention competencies, preparedness competencies, response competencies, and recovery/rehabilitation competencies. Each of the areas has different domains to narrow the focus of the competencies. Firstly, the mitigation/prevention competencies consist of two domains, which are risk reduction, disease prevention and health promotion, and policy development and planning. Next, is the preparedness competencies and its domains are ethical practice, legal practice and accountability, communication and information sharing, as well as education and preparedness. Thirdly, the area competencies comprises care of the community, care of individuals and families, psychological care and care of vulnerable populations. Lastly, the recovery/rehabilitation competencies includes the long-term recovery of individuals, families and communities (World Health Organization & International Council of Nurses, 2009). The ICN framework of competencies serve as the foundation to prepare disaster educational courses in the universities (Fountain et al., 2014). Thus, nurses must acquire appropriate competencies to completely meet the requirements of the organization, department, and workplace which the actual working situations may vary (Slepski, 2007).

2.1 Competing Issues of Competencies

In the light of the literature available regarding the core competencies in disaster nursing, there have been a few competing issues of core competencies in disaster nursing. The competing issues of core competencies in disaster nursing are; nursing education and competencies, nurses' perspectives on competencies in disaster nursing, nurses' experience and competencies in disaster nursing, and the need for specific competencies for each type of disaster.

2.2 Nursing Education and Competencies

The need for training and education on disaster

competencies has become a priority since the frequency of disasters occurring is increasing worldwide (Loke & Fung, 2014). Even though fundamental task has been done to determine competencies for the health care professionals engaged in emergency and disaster, further development should be done to specify the knowledge skills and attitudes required for the health care personnel (Schultz, Koenig, Whiteside & Murray, 2012). The ICN framework is the initial move towards the development of the nursing preparedness and response workforce. Additionally, the framework, which is formed by the ICN and WHO, will promote global awareness on the importance of competencies to be embedded and revised into education and practice (Couig & Kelley, 2012).

Unfortunately, according to Coulhan et al., (2005), educational and training programs for competency have not been fully conducted by the educators because of its complicated nature of the design and modeling, concern of change, and inadequate understanding of the pedagogical practices and formation methods of competency (as cited in Veenema, 2007). Besides, the development of the course and training for competencies which is in accordance with the acceptable standard of core competencies is poor (Schultz et al., 2012).

Nursing schools should lead the efforts of delivering help and care during disasters and planning the future health care team to be able to efficiently respond to every type of disaster (Fountain et al., 2014). An appropriately efficient emergency preparedness requires the actual training and education of facility and emergency staff (Powers, 2007) and the education of competencies in disaster nursing promotes better emergency and disaster preparedness (World Health Organization & International Council of Nurses, 2009; Loke & Fung, 2014).

2.3 Nurses' Perspectives on Competencies in Disaster Nursing

Nurses perspectives on competencies in disaster nursing may vary in many different aspects. Nurses perform their tasks based on their knowledge, critical thinking skills, evidence based practice, and at times their hunch to provide their best service to the patient and community (Fountain et al., 2014). In other words, nurses competencies may also rely on their personal point of views. They learn as they deliver care and may have difficulty in playing their role in a disaster particularly in dealing with a triage situation. Fountain et al., (2014) illustrated this; *"The nurse may have stabilized the patient and moved to another patient only to look back at that "stabilized" patient, who within a matter of seconds could have gone from stable to critical because of an injury of chemical exposure"* (Fountain et al. 2014, pg. 35). It explains the challenging role the nurses have to play and how their perceive to solve the situations when a disaster strikes as well as the importance of their competencies.

A qualitative study by Moghaddam, Saeed, Khanjani & Arab (2014), explored the needs of nurses for appropriate casualty support in disasters to improve the planning for disaster management found out that the nurses concluded four major

themes, derived from the interviews, as proper requirements for disaster management namely; psychological and mental support, proper disaster education, programming and management, and the setting up of prepared action groups and emergency sites. As the participants are among the nurses who have had an experience with an earthquake in Iran, they formed these themes based on their perception and experience. Interestingly, the results indicated that the nurses expressed the need for mental and psychological support to be able to provide efficient care as the disaster also affected and overwhelmed them. Also, nurses should receive proper education about disaster particularly about trauma care and complications, receive supervision and management for before, during, and after disaster, as well as form a strong team prepared for any possibilities of disaster (Moghaddam et al., 2014).

Often, the community is given the priority for extensive care during a disaster that the nurses are neglected, as the study suggests that the nurses perceived that they are affected psychologically and require mental and psychological support too. Secor-Turner & O'Boyle, (2006) reported that psychological problem and distress is commonly experienced by emergency and disaster first personnel who respond because disaster is a disturbing event.

Chan et al., (2010), conducted a development and evaluation of an undergraduate training course for developing International Council of Nurses Disaster Nursing Competencies in China. The training entitled "Introduction to Disaster Nursing" consisted of 150 participants who went through the pre-training and post-training assessments for participants' self-rated disaster nursing competencies. The findings indicated that the self-perceived disaster nursing competencies for the pre-training and post-training proposed noticeable betterment by which slightly higher scores were achieved in policy development and planning, education and preparedness, and psychological care domains (Chan et al., 2010). The results suggested that nurses' perception on their competencies should be taken into account and educational training is important to develop better competencies.

Another qualitative study was done by Loke & Fung (2014) to investigate the Hong Kong nurses' perceptions on the required competencies for disaster nursing and the ICN Framework of Disaster Nursing Competencies was used to categorize the disaster nursing competencies perceived by the nurses in the study. The findings in the study concluded that the nurses felt that their disaster nursing competencies were very low and a comprehensive curricula should be developed to improve their competencies for the betterment of the emergency preparedness (Loke & Fung, 2014).

3. Experience and Competencies in Disaster Nursing

In nursing education, Dewey's idea of experiential learning has been useful and influential as he emphasizes on the significance of the learning process to take place in real practical circumstances instead of training of specific isolated skills (Benner, Tanner & Chesla, 2009). A few studies (Moghaddam et al., 2014; Husna, Hatthakit & Chaowalit, 2010; Slepski, 2007) demonstrated the

relationship between experience on the disaster and nurses' competencies. In terms of nursing education on disaster competencies, experience appears to play a major role. Insufficient experience to disaster may lead the nurses to have unrealistic expectations (Hammad, Arbon & Gebbie, 2011).

The nurses participated in the research conducted by Moghaddam, Saeed, Khanjani & Arab (2014), have the experience and provided care in the Bam earthquake. Based on their experience, the nurses proposed four major requirements for disaster nurses to promote better planning of disaster management disaster psychological and mental support, proper disaster education, programming and management, and the setting up of prepared action groups and emergency sites. The themes were concluded based on their experience providing care during the Bam earthquake and it is made clear that nurses are not able to fully comprehend the importance of competencies and disaster preparedness until they face the challenging events occurred in a disaster. For example, they stated that the facilities and equipment must be sufficient and prepared earlier and the nurses' educational and non-educational requirements to provide care in a disaster is very important. Lastly, majority of the participants felt that nurses who were able to work more effectively during the disaster event were the ones who had the experience working with the severely injured patients, such as in the emergency departments (Moghaddam et al., 2014).

Husna et al., (2010), done a study to find out if knowledge and clinical experience have specific roles in perceived clinical skills for tsunami care among nurses in Banda Aceh, Indonesia. The study revealed a few major findings related to the nurses' perceived clinical skills which are; the relationship between knowledge and nurse and nurses' perceived clinical skills and relationship between experience and nurses' perceived clinical skills related to provision of care for the patients affected by a tsunami disaster. The results indicated that the nurses, particularly older nurses, who have longer clinical experience have the ability and skills to provide nursing care related to critical and acute care although they did not have the experience of providing care to tsunami patients (Husna et al., 2010). Experience can assist nurses attain new ideas about the benefits of previous lessons, gain understanding, as well as the clinical nursing skill, especially in response to disaster may be influenced by learning from mistakes and repeated action in similar settings (Husna et al., 2010).

An exploratory descriptive study by Slepiski (2007) was done to investigate the emergency preparedness and professional competency among health care providers during hurricanes Katrina and Rita. Several of the participants are registered nurses and the study illustrated that novice disaster responders admitted that they were least prepared in terms of knowledge and skills to provide care in the disaster and faced a lot of difficulties, moderately experienced responders were more prepared but still had to deal with a few difficulties, and the highly experienced responders reported only one difficulty faced related to their skills (Slepiski, 2007).

4. The Need for Specific Competencies

Even though a few attempts have been made to standardized the competencies, there are no recent extensive approved and unified requirements for all types of disaster medical training and education designed for medical personnel (Schultz et al., 2012). On the other hand, Gebbie & Qureshi (2002) asserted that the disaster and emergency preparedness competencies particularly for the nurses who work in the United States had not been formed. This appears to suggest that there should be a specific framework of competencies for disaster nursing for each country or for each type of disaster. Schramm and Hansen (1991) also proposed that specific strategies to respond are required for each type of disaster.

The framework developed by the International Council of Nurses (ICN) for disaster nursing competencies perhaps is the most comprehensive framework to be applied in disaster nursing (Fountain et al., 2014). Besides, the World Health Organization and International Council of Nurses (2009) analysed an organizing system to assure that all aspects of disaster nursing were taken into account in the competencies and they are formed to cater the worldwide standardized model. These competencies are important as the foundation to plan a curricula particularly emphasized on disaster nursing (Fountain et al., 2014).

5. Conclusion and Recommendations

Therefore, the appropriate standardized framework for disaster nursing core competencies should be utilized in the nursing practice worldwide and the ICN framework appears to be the most practical so far. Disaster nursing competencies training, as well as the instruction pertaining to disaster terminology, the way to use the proper protective equipment, and the efficient collaboration and communication with emergency care staffs being demonstrated, will lead to the improvement of patient progress and promote better results during an actual disaster or mass casualty incident (MCI) (Powers, 2007).

The previous literature suggested a few competing issues of disaster nursing competencies which are; nursing education and competencies, nurses' perspectives on competencies in disaster nursing, nurses' experience and competencies in disaster nursing, and the need for specific competencies for each type of disaster. These issues as discussed, highlight the significance of core competencies in disaster nursing which should be accompanied with effective training and educational programs, proper exposure to enhance experience, along with the implementation of the utilization of the core competencies, particularly the ICN framework of core competencies for disaster nursing to be embedded in the nursing education curricula.

The literature also revealed the importance of the framework of core competencies to be included in the curricula in promoting the education of the competencies (Loke & Fung, 2014; Schultz et al., 2012; Couig & Kelley, 2012), the relevance of nurses experience to competencies in disaster nursing (Moghaddam et al., 2014; Husna et al., 2010; Slepiski, 2007) and a standardized framework of competencies in

disaster nursing that is suitable for all kinds of hazard such as the ICN framework should be implemented among the health care teams (Fountain et al., 2014).

Nurses should acquire the competencies to be able to deliver care effectively in various events at their workplace and during the mass casualty incidents or disasters. The competencies may be improved with the frequency of exposure and experience as they are working (Husna et al., 2010). Additionally, the nurses should also be given support, specifically mental and psychological support, when a disaster strikes because their demanding tasks may lead them to feel overwhelmed and stressful (Moghaddam et al., 2014). So, nurses should be provided with psychological support and be equipped with appropriate competencies in order to deliver effective care when a disaster takes place.

6. From My Perspectives

In my point of view, nurses are the ones who receive the most challenging task among the health care team when a disaster strikes because they are the first responders to be called upon. My humble experience of volunteering to provide care during an immense flood which occurred in Kuantan, Malaysia back in December 2013 has taught me a few lessons on the possibilities that may happen in a disaster. Firstly, nurses cannot rely on other individuals, for example public volunteers, to perform their tasks because they do not have the competencies to provide proper care. They may assist the nurses but they are not to be assigned with nurses' tasks because such tasks require the proper knowledge and skills to be done.

Secondly, nurses must have the willingness to attend to the community. It was observed that some nurses keep complaining and scolding each other as they were performing their tasks. It created a futile working environment and demonstrated a bad example to the community. Perhaps the challenging tasks were very distressful to them that they tend to get angry and venting at each other.

Last but not least, the one who leads the nurses should have positive characteristics and competencies to be an appropriate role model to all the nurses he leads. After all, a good leader makes a good team. Hence, the nursing education should really emphasize on teaching the framework of core competencies to the nurses to enhance their capabilities to delivering care in various working environment.

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