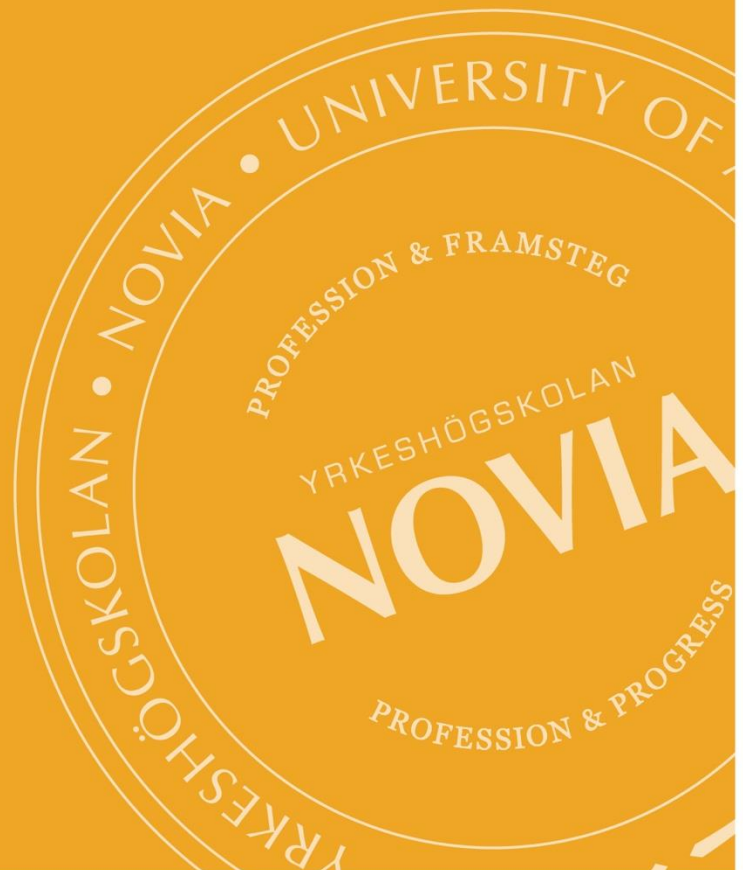


## **DISASTER NURSING**

Disaster nursing and the challenges  
that nurses encounter within it

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# Disaster Nursing

Disaster nursing and the challenges that nurses encounter within it

Neil Olson, Maj-Helen Nyback



## Abstract

Disaster nursing is a specialized area of nursing in which nurses participate and care for individuals affected by a disaster. The purpose of this article is to describe what disaster nursing involves and offer an overview of the challenges that a nurse can face. An explanation of the word *disaster* along with what it entails is also provided. Details such as how disasters are classified, along with how certain aspects of the community and daily living are affected are discussed. There are three phases of a disaster; preparedness, relief response and recovery and nurses do and should assist in each of them. However, disaster relief response rarely, if ever, is smooth and there are challenges. Difficulties within disaster nursing such as logistical problems and ethical dilemmas are investigated in this article. Raising awareness to these problems and educating others about disaster nursing in general is the final goal of this article.

## Introduction

A disaster is a calamitous event that involves emergent and unpredictable situations (Doubler, 2014, 6). Worldwide assistance is needed often due to disasters being very common. Veenema (2007, 3) states that international assistance in response to a disaster somewhere in the world is needed on average of one time a week and are on the increase. The World Disasters Report (according to ICN & WHO, 2009) states that disasters occurred 60% more often between the years of 1997-2006 than 1987-1996. Likewise, the number of reported deaths increased from 600 000 to greater than 1.2 million.

Undoubtedly, one of the main areas in which people are affected, is health. Therefore, nurses are important participants in disaster events (ICN & WHO, 2009). Disaster nurses are prepared to care for those in distress (Powers, 2010, 3). When this happens, this is known as disaster nursing. However, due to the difficult environment and situation in which this nursing care takes place, challenges abound.

The aim of this paper is to expand the knowledge of what disaster nursing entails, along with the challenges that a nurse encounters during this time. A description of what a disaster is and how it affects a population will be investigated initially, so that the context in which this nursing takes place can be better understood. Raising awareness to the seriousness of a disaster while also shedding light on a nurse's role is then the ultimate goal of this text.

## The nature of disasters

The International Federation of Red Cross and Red Crescent Societies (IFRC) describes a disaster as; *“a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”* Disasters can be placed in one of two main categories, natural or man-made. Earthquakes, floods, tornadoes, volcanic eruptions, tsunamis, ice storms, hurricanes and other natural environment events are all considered natural disasters while man-made disasters originate from a human cause. Chemical spills, fire, radiological (nuclear) events, biologic and chemical terrorism, acts of war, transportation accidents, armed conflicts and explosions are some examples of man-made disasters (Veenema, 2007, 4).

Disasters are also placed in categories according to their onset, impact and duration. Natural phenomenon, such as earthquakes and tornadoes, are rapid-onset disasters but sometimes allow evacuation and early response plans to be prepared and carried out. Similarly, bioterrorism attacks are also rapid-occurring events but are unexpected. On the other hand, droughts and famines are creeping disasters which have a slower onset and can have a longer-lasting impact on the environment and individuals (Veenema, 2007, 4-5).

The physical place where an event occurs also affects whether or not it is classified as a disaster. For example, a tornado in an unpopulated, barren desert would not be stated as a disaster, whereas, if the same phenomenon were to occur in a large city it would undoubtedly be considered a disaster. The high death toll along with the damage that the disaster can create are some of the main reasons for this difference (Veenema, 2007, 5).

The physical effects of a disaster are made clear through the destruction of buildings, tunnels, rail lines, roads, bridges, telephone lines, as well as public utilities such as gas, water, electricity and sewer services. In addition to affecting a community's industrial, business and agriculture sectors along with crippling its economy, disasters also take a toll on people's health. For example, premature deaths, injuries and illnesses, both physical and psychological, occur. The mental state of individuals can be affected and fear, anxiety and depression can arise. Also, a shortage of food can develop and nutritional deficits occur as a result. Negative changes within the environment can also increase the chance for communicable diseases as well as hazards within the environment. The medical and healthcare infrastructure, such as a hospital, can also be affected. Its usual response along with its routine prevention plans may be inadequate in the event of a major disaster; immediate and future problems may persist as a result (Veenema, 2007, 6-7, Powers and Daily, 2010, I).

## Disaster Nursing

The goal of disaster nursing is attained when a nurse provides the best care possible by identifying, advocating and supporting the individuals affected by the event (Powers, 2010, 3). Nurses take part in various facets of disaster response such as triaging, stabilizing, caring and evacuation. The participation and care that a nurse provides can be in various environments. For example, one nurse may be assisting an elderly male out in the field while another nurse supports an injured child in the hospital (Cox, 2004, 17). Nurses apply their knowledge and

skills when caring and assisting for those affected by a catastrophic event, whether they are displaced community members or those impacted somehow by a negative phenomenon. The goal of the nurse's role during a disaster is to support the individual's and community's health as much as possible. In order to do this, a nurse should be prepared to assist during all stages of a disaster. Nurses have multiple tasks and problems which they need to attend to during a disaster such as triaging patients, distributing nursing staff efficiently in order to provide effective care, ensuring that supplies and equipment are distributed adequately, overseeing patient transport to hospitals and so on (Powers, 2010, 1-4). Nurses must also be flexible and be able to shift their attention from one individual to a whole group of people in need of care (ICN & WHO, 2009). Berman and Snyder (2012, 718) state that understanding the chain of command during a disaster is one vital aspect that nurses need to know and that communication needs to be clear among healthcare personnel, emergency personnel and government officials. Furthermore, the individual who is chosen to be the nurse leader must be made known and his or her roles defined clearly, preceding the disaster.

## Nursing throughout the disaster phases

Disaster management is divided into three phases: preparedness, relief response and recovery. Nurses, in order to provide effective care during a disaster, must be involved fully with each one of these phases. In the preparedness phase, training and practice are vital methods in identifying and improving weak areas. Through education, physically practicing procedures and rehearsal, a nurse's confidence can be increased in preparation for an actual disaster (Powers, 2010, 8-9). Nurses must know their role in preparing others while also taking responsibility in preparing themselves so that they are ready to assist when needed (ICN & WHO, 2009).

The second phase, relief response, is the actions carried out just prior to or during a disaster by healthcare professionals in response to the event. Interestingly, many times, it is not an initial call from emergency services that alert the hospital to an imminent or current disaster. Instead, often it is the increase of patients appearing at the emergency department. The call for the implementation of the emergency response plan may be done by the ED triage nurse or public health nurse. A nurse may need to carry out procedures such as decontamination, preparing showers as well as utilizing respirators and chemical suits during a biological, chemical or

nuclear attack. Coordination of the response by healthcare professionals and resources while simultaneously providing patient care is essential during this stage (Powers, 2010, 9).

Disaster recovery, the third phase, is the time period after the event in which the community attempts to return to its initial state, or in simpler terms, “back to normal”. The re-opening of schools, businesses and stores as well as the return of normal daily life events are all signs that the community is in the recovery phase (Fitzgerald, Aitken, Davis & Daily, 2010, 495). Nurses also assist during this phase. For example, occupational health nurses can assist in the recovery of affected businesses (Perce, 2007, 239). Thus, throughout the whole disaster period nurses provide aid to the affected individuals, families and the community.

## Challenges in disaster nursing

In the event of a disaster, there is a risk of having a shortage of resources. This can lead to an ethical dilemma in which a nurse must face. For example, does the nurse use a large amount of resources on a patient in a life-threatening condition or does he or she attempt to spread out the resources more evenly, allowing a greater amount of individuals to at least receive some care? Having a limited ability to care for individuals while trying to uphold both legal and ethical interests is clearly a challenge for disaster nurses (Powers 2010, 4).

Another example of an ethical issue which the nurse could experience is who to treat first. During a disaster, people of all ages experience various types of trauma. The nurse may have a difficult time deciding on who is the first priority, due to the seriousness of each of their cases. Doubler (2014, 6) asks, “*If a woman is pregnant, does she take precedence over a young child if both need immediate care to save their lives?*”. Another example she offers is, “*Should an elderly person die because a teenager needs immediate intervention to live?*”. These questions help to illustrate the ethical issues that a nurse working during a disaster event faces and brings to light the difficult decisions that must be made.

Due to the fact that nurses are also members of the community, they are also affected by the disaster, not only the ones they treat. As Sterling (2014, 61) suggests, “*Although nurses are ethically obligated to put patients before themselves, one must consider personal safety...*”. Also, due to lack of communication or the fact that they are needed so greatly by others for assistance, they may not know the condition of their loved ones or friends (Powers, 2010, 5).



Berman and Snyder (2012, 718) also state that coping with disaster-induced stress should be prepared for by the nurse and that he or she should be ready to be disconnected from family. Powers (2010, 5) suggests that unusual and demanding conditions coupled with long shifts during a disaster period can be physically taxing on the body. This presents the problem of balancing the care between a nurse's own health and those who he or she cares for. Therefore, even this area should be considered when disaster planning.

A main trait within all nursing, but especially disaster nursing, is caring. Obviously, a required but admirable attribute, nurses provide care to those in severe need during disaster. However, it does not come without a price and can induce compassion fatigue, especially for those nurses who work in high-stress environments. Compassion fatigue is manifested through physical, emotional and behavioral symptoms. It can appear in nurses who have, over long periods of time, cared for those who have been affected by a traumatic event (Sterling, 2014, 62-63). Adams et al. and Pfifferling (according to Sterling, 2014, 63), state that, as a result, a nurse who is affected by compassion fatigue may be less empathetic toward those requiring their help.

## Conclusion

Disasters are horrendous events with terrible consequences. Individuals, families and communities are affected and there is a great need for nurses during these occurrences. Assisting the population throughout the whole period, both in preparation planning and during an actual disaster, as well as during the recovery phase is vital for the community to withstand the shock of such an event. Nurses assist in the cohesion of the healthcare response and good communication among the healthcare community is important in achieving this. Challenges arise and nurses must be prepared to respond to them in the best way possible. Ethical issues are also common and put nurses in difficult situations. All of these aspects point towards the need to raise awareness within the population so that preparation and response to a disaster is improved and that the effects of a disaster can be minimized.

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