

The Role of Nursing in Decades of Disasters

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Learning Outcomes

At the end of this chapter, the reader should be able to:

1. Define the concept of disasters.
2. Classify and give examples of disasters.
3. Describe various effects of disasters.
4. Explain the nursing role in disaster management.

Introduction

Developing countries suffer the greatest costs when a disaster hits. More than 95 per cent of all deaths caused by disasters occur in developing countries, and losses due to natural disasters are 20 times greater (as a percentage of GDP) in developing countries than in industrialized countries (World Bank, 2010; Ballesteros, 2008).

A significant proportion of Americans are at risk from only three classes of natural disasters: floods, earthquakes, and hurricanes. Twenty-five to 50 million people live in floodplains that have been highly developed as living and working environments. Another 110 million people live in coastal areas of the United States, including the Great Lakes region (by the year 2010, 60 per cent of the US population may be living within 50 miles of the East or West Coast). A category 4 hurricane has an 80 per cent chance of hitting the coastal area from Maine to Texas. Man-made disasters are more common in West Africa than natural disasters. For instance, Nigeria has never experienced any earthquake or hurricane at any time in her history but in the past few decades Nigeria has experienced a lot of disasters related to aviation (plane crashes) and road transport accidents, floods, building collapse and other security-related hazards such as terrorist attacks, political and religious violences. Besides, the nation has suffered from epidemics of certain communicable diseases like meningitis and cholera. For the purpose of good understanding two key words (disaster and nursing) shall be defined as this chapter progresses. The first concept to be defined is disaster.

What is Disaster?

One of the most difficult concepts in the literature is to arrive at a definition of disaster. There have been many attempts to define disasters, but all run into the problem of either being too broad or too narrow. Having a definition of disaster is extremely important in epidemiology for identifying which events to include or exclude from your analysis. If events are identified with a common definition, then they can also be more easily compared.

In general, most disaster events are defined by the need for external assistance. Perhaps one reason for this observation is that disaster relief agencies are often the only organizations with comprehensive and systematic data. There should be some caution applied to data defined in this circumstance. Notably, the decision on which situations require external assistance may differ by country or region. In some situations, it may be a political decision as well.

A disaster can be defined as:

any occurrence that causes damage, ecological disruption, loss of human life, deterioration of health and health services, on a scale sufficient to warrant an extraordinary response from outside the affected community or area (WHO, 2008).

An occurrence of a severity and magnitude that normally results in death, injuries and property damage that cannot be managed through the routine procedure and resources of government (Federal Emergency Management Agency [FEMA]).

...an occurrence either nature or man made that causes human suffering and creates human needs that victims cannot alleviate without assistance (American Red Cross [ARCI]).

The United Nations defines disaster as ‘the occurrence of a sudden or major misfortune which disrupts the basic fabric and normal functioning of a society or community.’

In summary, a disaster is a sudden, calamitous event bringing great damage, loss, destruction and devastation to life and property. The damage caused by disasters is immeasurable and varies with the geographical location, climate and the type of the earth surface/degree of vulnerability. This influences the mental, socio-economic, political and cultural state of the affected area and people. Generally, disaster has the following effects in the concerned areas:

- (i) It completely disrupts normal day-to-day life

- (ii) It negatively influences the emergency systems
- (iii) Normal needs and processes like food, shelter, health, etc. are affected and, depending on the intensity and severity of the disaster.

It may also be termed as ‘a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using its own resources.’

Public health agencies must be concerned about the universal risk of disaster, the increase in natural disasters across the United States, the negative impact of disasters on public health, and the likely increase of actual and potential effects of man-made disasters.

A disaster is a natural or man-made hazard that has come to fruition resulting in an event of substantial extent causing significant physical damage or destruction, loss of life, or drastic change to the environment.

Disasters pose a number of unique problems not encountered in the routine practice of emergency health care. Examples include the need for warning and evacuation, widespread urban search and rescue, triage and casualty distribution, and coordination among multiple jurisdictions, government offices, and private sector organizations. The effective management of these concerns requires special expertise. However, hospitals and other health care agencies must be able to address these situations quickly and effectively to meet the standards of the Joint Commission on Accreditation of Healthcare Organizations and the regulations of the Occupational and Safety Health Administration. Usually, disasters have the following main features:

- Unpredictability
- Unfamiliarity
- Speed
- Urgency
- Uncertainty
- Threat.

Thus, in simple terms we can define disaster as a hazard causing heavy loss to life, property and livelihood, e.g. a cyclone killing 10,000 people and a crop loss of one crore can be termed as disaster.

Globally, the most widely recognized types of disasters are those listed here. Disasters related to extreme weather events (floods, cyclones, tornadoes, blizzards, droughts) occur regularly. Events related to extremes of the earth's geology (earthquakes, volcanic eruptions) occur less frequently, but result in major consequences when they happen. Tsunamis often result from earthquakes. Avalanches result from massive accumulations of snow.

Classification of Disasters

Generally, disasters are of two types - natural and man-made. Based on the devastation, the two broad types are further classified into major/minor natural disasters and major/minor manmade disasters.

Table 3.1: Classification of disasters according to origin

A. Major Natural Disasters	B. Minor Natural Disasters
• Flood • Cyclone • Drought • Earthquake	• Cold wave • Thunderstorms • Heat waves • Mud slides • Storm
C. Major Man-Made Disasters	D. Minor Man-Made Disasters
• Setting of fires • Epidemic • Deforestation • Pollution due to prawn cultivation • Chemical pollution • Wars	• Road/train accidents, riots • Food poisoning • Industrial disaster/crisis • Environmental pollution

Table 3.2: Classification of disasters according to sources

A. Water & Climate Related Disasters	B. Geologically Related Disasters
1. Flood	1. Landslides and mudflows

2. Cyclone 3. Tornado 4. Hailstorm 5. Cloud burst 6. Thunderstorm & lightning 7. Snow avalanches 8. Heat & cold wave 9. Coastal Sea Erosion 10. Drought	2. Earthquakes 3. Dam failures/dam bursts 4. Mine fire C. Climate, Industrial & Nuclear Related Disasters 1. Chemical & industrial disasters 2. Nuclear disasters 3. Accident related Disasters
D. Accident Related Disasters 1. Forest fire 2. Urban fire 3. Mine flooding 4. Oil-spill 5. Major building collapse 6. Serial bomb blasts 7. Festival related disasters 8. Electrical disaster and fires 9. Air, road and rail accidents 10. Boat capsizing 11. Village fire	E. Biologically Related Disasters 1. Biological disaster and epidemics 2. Pest attacks 3. Cattle epidemics 4. Food poisoning.

However, researchers have been studying disasters for more than a century and for more than forty years disaster research has been institutionalized through the University of Delawares Disaster Research Center. The studies reflect a common opinion when they argue that all disasters can be seen as being human-made, their reasoning being that human actions before the strike of the hazard can prevent it developing into a disaster. All disasters are hence the result of human failure to introduce appropriate disaster management measures. Hazards are routinely divided into natural or human-made, although complex disasters, where there is no single root cause, are more common in developing countries. A specific disaster may spawn a secondary disaster that increases the impact. A classic example is an earthquake that causes a tsunami, resulting in coastal flooding.

Episodes of Disasters in Nigeria

2000

July 10: A pipeline exploded killing about 250 villagers, with fires burning out of control near the town of Jesse.

July 16: At least 100 villagers died when a ruptured pipeline exploded in the town of Warn.

November 5: Up to 200 people were killed when a petrol tanker crashed into a queue of vehicles at Ile-Ife, Osun State, south-west Nigeria at an illegal checkpoint.

November 30: A leaking oil products pipeline caught fire at a beachhead near the fishing village of Ebute near Lagos, killing at least 60 people.

2001

March 6: Twenty-three girls died in a blaze at Gindiri Government Girls School near Jos in central Nigeria, after they had been locked in for the night.

2002

January 27: At least 600 people were drowned and thousands made homeless after multiple bomb explosions at a Nigerian military armoury triggered by an accidental fire that caused mass panic.

May 4: A Nigerian EAS Airline BAC 1-11-500 with 105 people on board crashed into the northern Nigerian city of Kano. At least 14 people were killed.

2003

June 19: A Nigerian oil pipeline punctured by thieves exploded north of the Abia State capital, Umuahia, killing 125 villagers. September 7: At least 70 people were killed in a crash involving a passenger bus and three other vehicles near the Murtala Muhammad bridge on the Abuja-Lokoja highway, 100 km (60 miles) south of the nation's capital.

October 9: At least 100 people drowned when the Kuntu-Borong ferry, travelling from Numan in Adamawa State to Jen in Taraba State, hit a pillar of the Numan bridge and capsized.

2004

September 17: Dozens of people were killed in a petroleum pipeline explosion in the commercial capital Lagos. The explosion happened as thieves tried to siphon petrol from a pipeline belonging to state oil company, NNPC.

2005

October 23: Bellview Airlines Boeing 737 with 116 on board crashed shortly after take-off from Lagos.

2010

October 1: Deadly bomb blast in Abuja Nigeria's 50th Independence Celebration killing 4 persons and wounding 21 persons.

December 31: At least 11 people were killed in an explosion in a mammy market near a barracks in Nigeria's capital, Abuja.

2011

June 16: A bomb blast hits police headquarters, Abuja. Claimed about eight lives, wounded several people and destroyed about eighty vehicles.

The High Powered Committee appointed by the Government of India has categorized disasters into six stages as enlisted in Table 3.3.

Table 3.3: Stages of disasters

S/No	Faulkner's (2001) Stages	Fink's (1986) Stages	Roberts' (1994) Stages

1.	Pre-event		Pre-event: where actions can be taken to prevent disasters (e.g. growth management planning or plan aimed at mitigating the effects of potential disasters)
2.	Prodromal	Prodromal stage: when it becomes apparent that the crisis is inevitable	
3.	Emergency	Acute stage: the point of no return when the damage limitation is the main objective	Emergency phase: when the effects of the disaster have been felt and action has to be taken to rescue people and property
4.	Intermediate		Intermediate phase: when the short-term needs of the people must be dealt with — restoring utilities and essential services. The objectives being at this point to restore the community to normality as quickly as possible.
5.	Long-term	Prodromal stage: when it becomes apparent that the crisis is inevitable Acute stage: the point of no return when the damage limitation is the main objective Chronic stage: clean up post mortem, self- analysis and healing	Long-term phase: continuation of the previous phase but items that could not be addressed quickly are attended to at this point (repair of damaged infrastructure, correcting environmental problems, counseling victims, reinvestment strategies, debriefings to provide input to revisions of disaster strategies)
6.	Resolution	Resolution: routine restored or new improved state	

Source: Ritchie (2004)

Disaster Management

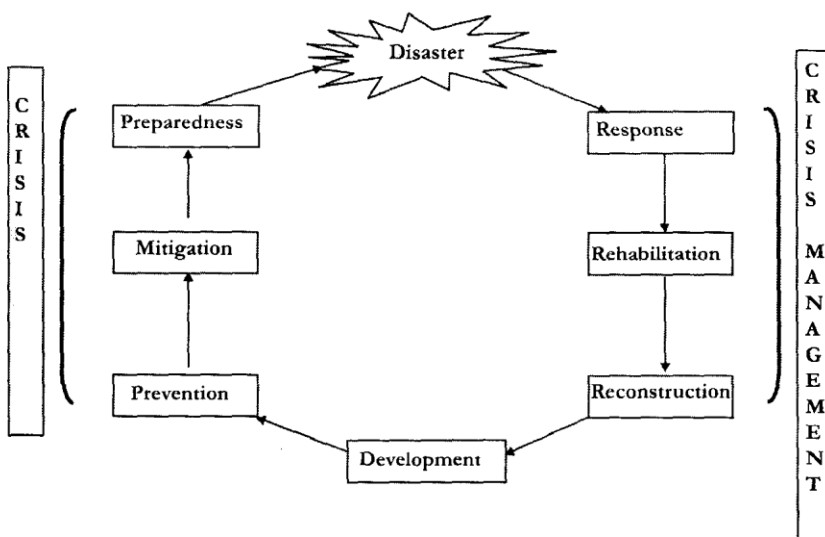


Fig. 3.1: Disaster management cycle Source: Ritchie (2004)

The Role of Nursing

Nurses comprise the largest health care workgroup in most countries and are at the forefront of the health care response to disasters. From the work of Florence Nightingale in the Crimean War to the recent care provided by nurses in the aftermath of Hurricane Katrina in 2005 and the Asian tsunami of 2004, nurses historically are linked to the provision of care during crises.

The role of a nurse in specific disaster care depends on the situation, and many functions outside the usual scope of practice are involved. Nurses have been on the forefront of medical care throughout the wellness and illness continuum. Now it is time to continue this growth and use our knowledge and skill when it is most desperately needed. It is imperative that nurses become involved in all aspects of disaster care. A nurse may be involved in several roles during a disaster (Cox & Briggs, 2004). A close look into the definition of nursing by the International Council for Nurses (ICN) has lent help to the description of nursing role in disaster.

According to ICN,

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health,

prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, as well as education are also key nursing roles.

The goal of nursing is ensuring that the highest achievable quality of care is delivered through identifying, advocating, and caring for all impacted populations throughout all phases of a disaster event, including active participation in all levels of disaster planning and preparedness. Nursing provides this care, advocacy, and promotion of health within the context of a disaster. In fact, disaster nursing is provided in numerous environments and settings, each with unique conditions with which disaster nurses must be familiar. Essential nursing abilities needed for the appropriate management of disaster victims include critical thinking, adaptability, teamwork and leadership. Proper patient care and management in disaster settings mandates an understanding of both individual care and mass patient care. Nurses cannot be unprepared when the health care of their community is at stake.

For example, a nurse may function as a triage practitioner. This challenging role requires that several victims be assessed and prioritized quickly to ensure that resources are used appropriately. Jurkovich noted that after the plane had crashed into the Pentagon on September 11, 2001, 44 patients were seen in the triage area within an hour. Among the patients, 9 were critically ill and 17 were admitted to the hospital.

Clinical role of nursing during a disaster

The disruptions in a community resulting from the impact of a disaster event have varying impacts on nursing and the provision of health care. These impacts may be short or long-term, based on the magnitude of the damage to the community and the ability of local resources to readily address and meet the health care needs of the community without additional resources. During a medical disaster, nurses must be aware of the potential hindrances in delivering care and the modifications necessary to provide this care. Whether the precipitating event is a relatively small multiple-casualty incident or a catastrophic event, the provision of health care can, at least temporarily, be overwhelmed. Nurses may be called upon to care for large numbers of patients often at a rapid pace. Without proper planning, the response can become chaotic, resulting in less effective care delivery. Nurses must properly triage patients, ensure appropriate distribution of available nursing

staff to maximize care delivery, and coordinate the appropriate distribution and placement of essential supplies and equipment.

With health care resources overwhelmed, the ability to provide the usual standard of care may not be possible. Unless regional plans have identified acceptable levels of care during a disaster, the nurse may face the difficult task of determining what constitutes reasonable care for the patients with the given resources. The balancing act between legal and ethical concerns and what nurses are physically capable of providing is a difficult one. Providing nursing care during a disaster also necessitates coordinating care with other agencies and disciplines within the health care system, and maintaining the functionality of the health care facility itself. Some important roles of the nurse during a disaster are overseeing the transfer of patients to regional hospitals located away from the disaster-impacted area, assigning supplemental health care workers and obtaining needed supplies.

The scope of care provided by nurses also may expand in response to a disaster. Based on the magnitude of the event, the community may be in need of food, water, and shelter. Public health nurses as well as nurses not routinely involved in addressing these basic survival needs may be called upon because of the severity of the conditions or because normal public health functions have been damaged. Nurses also may be needed to practice outside of their health care facility as first responders on the scene or to care for vulnerable populations during a disaster. An ineffective nursing response can negatively influence the community's outcome from a disaster by failing to appropriately match nursing resources with need. Nurses must be well versed in strategies for overcoming disaster-induced adversities, and fully understand the different roles they may be required to embrace in order to deliver care effectively in a disaster setting.

Self-management role

In a disaster, nurses may witness and be affected by troubling images around them. Regardless of the emotions elicited by these images, nurses' perseverance in providing needed care in times of disaster is vital to the community's outcome.

Nurses working during disasters also may experience varying degrees of losses of their own. Due to lack of communication or the pressing need of their duties, they may not know the status of their family or friends. The nurse's family, in turn, may not know the welfare of the nurse until after the

disaster has abated. Besides, the situation on ground may demand working long shifts in abnormal, difficult conditions during a disaster. A difficult situation health care workers can face in disasters is providing care to others while taking measures to care for their own needs. Thus, nurse leaders must incorporate care for the nurses into disaster planning. This should include strategies for rotating staff measures to obtain and provide information about family to the nurses on duty, and ensuring the availability of immediate support for those having difficulty in coping. It is very vital that nurses understand how a disaster could affect them, both immediately and in the long-term, and thus, develop coping strategies and support networks to care for themselves and their colleagues within the nursing community.

Preparation for adverse conditions

Commonly, the nature of a disaster can cause adverse environmental conditions such as flooding or high winds. Apart from this, structural damage from events such as earthquakes can render the health care facility a potentially unsafe environment. Weather conditions such as flooding can result in the closing of medical facilities available to the affected community, resulting to difficulties in receiving and evacuating patients. Moreover, these adverse conditions and the damage they cause are capable of hindering the arrival of assistance and consequently increase the isolation of the affected community from health care response. Nurses working in disasters should anticipate these potential hazards and thus incorporate these considerations into planning and response.

Managing and coping with lack of recognition

In some places such as Nigeria, nurses do so much but are not well appreciated. Sometimes, their voices and ideas are not heard.

Similarly, they are not allowed to participate in administrative decision-making. This may be more pronounced in the arena of disaster health care, in which planning and response decisions may be made by other disciplines, and in which disaster nursing may not be well integrated. This results in a detrimental delivery of care to the community during a disaster. The importance of the contributions of nurses is not often understood by other members of the medical community or by other sectors of the community despite the fact that, in many instances, nurses may be the only health care workers providing care in a community. Frequently, they are at the frontline of a

disaster, and have significant insight into the immediate needs of the community. The situation where nursing plays the second fiddle in health care setting will certainly not be overcome if the profession remains at diploma level. Therefore, nursing should move to the four walls of the university without further delay. Nurses' representatives must be included in discussions concerning their community and regional health care disaster plans, and their input should be mandated and integrated by emergency planners and health care leaders. The active cultivation of nursing insight and innovative thinking into disaster planning and preparedness will ensure that nursing care will be provided to the good of the community.

Critical thinking

Critical thinking and problem-solving are indispensable skills in managing the effects of a disaster. Early in the profession of nursing, nurses were made to learn critical thinking skills as they assessed and determined patient needs, then to apply and adapt nursing care to meet those needs. The application of critical thinking to the disaster setting is one of nurses' substantial strengths and, if properly directed, can be of substantial value to the overall health care response. With a strong knowledge base of the community and its potential resources, nurses are in a key position to assist with the necessary problem-solving required during a disaster. Possible problems to address include creating alternate ways to obtain needed supplies when the normal routes are unavailable, or determining non-traditional locations to position bases of community care to serve the disaster-affected population. When issues related to direct patient care and care management arise, the value of nurses' critical thinking skills becomes indisputable and relevant.

Ineffective triage, unrecognized injuries or changes in a patient's condition, lack of documentation, and poorly managed transfers to the operating room or to regional hospitals can negatively influence the community outcome. Nurses have the ability to recognize these and similar complications of disaster response, and mount up corrective action through their critical thinking and problem-solving skills. These same critical thinking skills are major contributions nurses can bring to all levels of disaster planning, preparedness, and evaluation.

Research participation

Perceiving gaps in current disaster plans and envisioning improvements for greater functionality are valuable components of nurses' research capabilities. This aspect of nursing may be seriously jeopardized if nursing remains isolated from the rest of health care professions within the realm of the citadel of learning in the university. Nurses in disaster settings should fully utilize their research skills towards the improvement of the care delivered and, ultimately, for the overall disaster response.

Adaptability of nursing

The rapidly changing circumstances during a disaster call for adaptability. Flexibility and adaptability are essential in increasing the nurse's capacity to function efficiently and effectively during disaster events. Nurses may find themselves in a crowded emergency department (ED), or at the scene of the event, or in a quickly converted hospital cafeteria, or in a makeshift tent to provide care. During a disaster, health care locations are not static and nurses may need to shift locations multiple times as the conditions change. Shortages of and problems with equipment also necessitate adaptability. Nurses may be required to provide care without the usual provisions. For instance, dim or no lighting, lack of electrical power and difficulties with communication systems are issues that nurses may face and have to adapt to during a disaster; these conditions may be intermittent and require frequent reassessments and adaptations. Creativity often emerges during the process of adaptation as nurses combine their critical thinking skills with the needs of the current situation. For example, shortages of supplies may lead to improvised methods of sharing the limited equipment among patients, or using a different method or resource to perform the same function. Improvisation is spontaneous, but must be grounded in solid nursing knowledge and experience to provide the appropriate modifications for the situation. Flexibility related to the variety of assigned or improvised tasks nurses perform will be needed; these tasks may range from direct patient care to leading the health care facility or community disaster effort. Some of these roles are developed well before the disaster through careful disaster planning; other roles develop spontaneously because of an identified need during a disaster. These roles also may change abruptly, and the nurse may be adapting hastily, moving from one role to the next in response to the shifting needs.

Leadership role

It is imperative for nurses to fully utilize their leadership abilities to coordinate and organize efforts during all stages of a disaster.

Besides managing other nurses involved during a disaster, nurses in leadership positions are to address the overall health care response. In a disaster response, nurse leaders oversee the effectiveness of that response; they are the coordinators who use their experience and knowledge to shape the disaster effort, coordinating personnel as well as supplies and resources. They may reallocate nurses, supplies and equipment to fill gaps in the response effort, or reinforce areas that are being overwhelmed. For instance, they may choose to redirect patient flow in the hospital to prevent patients from bottlenecking unnecessarily while they await treatment. These changes often are made as the nurse leader interacts with other services and refines the response effort. Community-wide responses, such as the establishment of shelters or fever clinics, are also implemented through nursing leadership. The nurse leader ensures that the health care facility (hospital, medical clinic, or community centre) is adequately and appropriately addressing the needs of the community. Critical to this effort is the involvement of nurse leaders in all disaster planning and preparedness to ensure that their leadership experience is incorporated before a disaster occurs. Management knowledge and experience of nurses if utilized will help disaster planners and hospital administrators foresee problems and correct them promptly before they influence the response negatively.

Ideally, nursing roles and positions in disasters should be pre-established by careful disaster planning. However, in the absence of a designated leader, a nurse who begins to coordinate and delegate responsibilities in an attempt to overcome an identified response shortcoming may spontaneously assume a leadership role. The individual nurses who solve problems related to a multitude of issues throughout the disaster response also demonstrate nursing leadership skills. Without strong leadership, the effectiveness of the disaster response will be severely limited. Nurses possess the necessary coordination and delegation skills which, when coupled with their care management experience, position them to capably serve in health care leadership roles during disasters. During a disaster, the population is in a period of need and there is no large group of health care workers better disposed to care for them than nursing. Nurses must clearly understand and practise beforehand their potential role in a disaster and have the necessary disaster education and skills to be in a position of readiness. Nursing knowledge and care skills coupled with their

strengths of flexibility, teamwork, critical thinking, research and leadership will be crucial in addressing the healthcare needs of the disaster.

Nursing role in the phases of disasters

Disaster management encompasses the efforts to deal with hazards and the disasters they may produce. Disaster management is divided into three phases: preparedness relief response and recovery. Each phase is an integral component of a holistic approach to an effective health care response. To be truly successful in their role of providing care during disasters, nurses must be involved integrally in all phases.

Preparedness

This is the first phase of disaster management, which involves the planning and preparedness activities performed prior to a disaster. Mitigation initiatives are specific preparedness strategies designed to reduce the losses from disasters. One example is the building of earthquake-resistant hospitals. Planning begins with a hazard- vulnerability assessment, which is an analysis of the particular risks that a specific community and its health care system could face. Preparedness efforts are guided by these identified risks; this means planning focuses on preparing for those hazards that are most likely to occur in that given community. Effective preparedness anchors on the development of a well-organized disaster response plan. In many countries, nurses are not allowed to contribute to this essential plan due to lack of professional recognition and/or gender issues. However, when local or regional leaders work to design the health care response, nursing involvement is crucial to guide the planning toward effective health care during a disaster. Nursing expertise can guide plans by evaluating and redesigning ineffective care strategies, assuring proper utilization of nursing potential, and ensuring efficient and cohesive patient flow throughout the health care facility and the community.

Training and practice are essential components of the preparedness phase. Drills provide an opportunity to identify areas within the disaster plans that need improvement. Education, coupled with the hands-on practical experience during drills, provides nurses with confidence in their capabilities through rehearsing and familiarizing them with their potential disaster roles and responsibilities.

Relief response

The health care relief response to a disaster encompasses the broad scope of those actions intended to provide immediate health care to the community and begins with the initial notice of an impending or actual event. In Nigeria, the first notification of an event that health care facilities receive is the sudden, unannounced influx of arriving patients because there are no existing functional emergency management services. As a result, gradual onset events, such as emerging infectious diseases, tend to begin slowly but increasingly overwhelm health care resources as more patients develop symptoms and seek care. The Accident & Emergency Department triage nurse or the public health nurse may be the first to recognize the impact on health care and determine appropriate care as they call for the implementation of the emergency response plan. In the instance of chemical, biological, or radiological attacks or accidents, nurses may be involved in the immediate role of decontamination, setting up showers, and donning chemical suits and respirators. Occurring simultaneously and in synergy with patient care is the coordination of the response so that all of the health care facility's resources, including the nursing staff, are utilized to their fullest. This draws upon the work put into the disaster planning phase by following the procedures for establishing the hospital emergency operations centre, implementing staff recalls, creating surge areas and maintaining supply deliveries to the facility. Outside of health care facilities, nurses also will be integrally involved in assessing community needs, providing shelter; food, and water; establishing and staffing vaccination or distribution centres and providing psychosocial assistance. In addition, nurses may be providing care at the scene of the event or at field hospitals established to administer supplemental care to the community.

Recovery

The focus of relief response efforts is the delivery of health care throughout the time of the immediate needs of the community involved. Progressively, this phase will eventually give way to the recovery phase of the disaster. This phase is characterized with a decline in the number of patients in urgent need of care, and the arrival of outside resources to augment the health care capacity of the community. Essentially, recovery efforts are directed at rebuilding the basic societal functions of the community, including rebuilding the health care system to ensure adequate mechanisms are in place to effectively provide for and monitor the ongoing health needs of the community. As a matter of necessity, disaster health care recovery plans should incorporate the long-term support provided by the nurses who care for the individual needs of the population. Rsi-

response nursing tasks include public health surveillance, establishing temporary clinics, guiding immunization programmes and ensuring that the ongoing health and survival needs of the community are met. Nurses in a health care facility may provide care in tents or other temporary shelters for an extended period, if their facility sustained significant structural damage. Nurses also may be involved in providing psychological care to the community to assist its members with the grieving and coping processes. In order to restore the community to a pre-disaster state, the knowledge and flexibility of nurses in providing a broad range of needed tasks underscores the need for their extensive involvement in the recovery efforts.

Conclusion

During disasters, professional nurses are needed to provide aid and care by utilizing their unique skills, abilities, and understanding of the community. Without the care provided by nurses, the community is likely not to fare well. To be effective, nurses must be prepared; this preparation includes education in relevant disaster topics, skills acquired through hands-on practice, interaction with preparedness procedures, and a firm understanding of local and regional capabilities and resources.

Challenges and recommendations

The situation of security in the country is posing series of challenges to individuals, families, governments, security personnel and different professions. Nursing as a profession is not left out of these challenges. Therefore, it has become very necessary for nurses to take cognizance of the following:

- Disasters require extraordinary efforts beyond those needed to respond to everyday emergencies.
- Nurses have an obligation to keep current in new and emerging trends in health care and threats to society.
- Learning about the prevention and mitigation of bio-terrorism and disasters in general is essential.
- Reverse triage is used in mass casualty events instead of traditional triage in order to do the greatest good for the greatest number.

- Nurses will be actively engaged in assessing the physical as well as the mental needs of victims, their families, first responders, and other health care personnel.
- Nurses need to have their own family disaster plans in place to be able to assist others in times of disasters.
- Nurses are actively involved in disaster mitigation, planning and response efforts by learning and practicing disaster preparedness systems in their communities and agencies.

On these premises, this chapter recommends the following:

- (i) Establishment of functional emergency management services.
- (ii) Establishment of “disaster nursing” as a specialty in the country with effective curriculum of universal standard.
- (iii) Integration of disaster management into the existing curriculum of the nursing education at diploma and degree levels.
- (iv) Establishment and funding of nurse-led disaster management organizations.

Implication for students and prospective nurses

Nursing is a field that demands much of those who pursue it. Long hours and the strain of working with ill and stressed people on a daily basis can make it a very difficult challenge. If you are currently in the nursing field or you are considering pursuing this career, here is a list of the top 10 traits every nurse should have/be by Ryan Winter (2009):

1. ***A caring nature***; If a person cannot care about the people they are serving, they will not excel as a nurse. Nurses deal with the sick and injured and their families on a daily basis, and they need to be able to show them that they truly care about their situation.
2. ***Be empathetic***: Nurses regularly deal with people who are scared and in pain. They must be able to put themselves in their patients’ shoes if they are going to give them the quality of care that a good nurse provides.
3. ***Be detail-oriented***: Nurses must remember to write everything they do on patients’ charts. They must also remember to bring medications at the correct times. Being an organized detail-oriented person is therefore crucial for someone in this career field.

4. ***Be emotionally stable:*** Nurses feel the joy of seeing a new baby born, followed by the pain of losing a long-term patient who had become a friend. Emotional stability is crucial in order to survive the roller coaster ride of emotions nurses must endure on a daily basis.
5. ***Be adaptable:*** No day is quite like the next when you work as a nurse, so they need to be able to adapt to circumstances. People are unpredictable at the best of times, but under stress become even more unpredictable, so a nurse's typical workday will require flexibility and adaptability.
6. ***Have physical endurance:*** Breaks for nurses are few and far between. They are on their feet all day, sometimes for 12 or more hours at a time, so nurses must have good physical endurance to succeed in nursing.
7. ***Be a quick thinker:*** When a nurse notices something is not right with a patient, they need to be able to make decisions quickly and put their plans into action instantly. Nursing is not a career for someone who needs time to think about a situation before responding because even a fraction of a second can mean the difference between life and death.
8. ***Have great judgement:*** A nurse must be able to look at a patient's current state and accurately assess what is or is not needed. This must happen quickly during emergencies. Nurses therefore need sound judgement and maturity.
9. ***Be hard-working:*** Nursing is a never ending job. Someone is always ill and in need of some sort of aid or attention. It is also unusual for a hospital or medical centre to be overstaffed, which of course means more workload on each nurse in the unit. Being a hard worker is therefore a very important trait.
10. ***Have great communication skills:*** Nurses communicate with each other, doctors, patients, and patients' families on a daily basis, so being able to communicate clearly and effectively, and to read people is necessary for people in this career.

Nursing is a difficult career. There is no doubt about it. However, it can also be an extremely rewarding career given the right attitude. Certainly, the more of the traits above you have as an individual, the more likely that nursing is the career for you.

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