Essentials of ADULT HEALTH NURSING–II

As per the Revised BSc Nursing Syllabus

Dipak Sethi

JAYPEE

Contents

UNIT

9

Nursing Management of Patient with Emergency and Disaster Nursing

LEARNING OBJECTIVES

At the end of this unit, the students will be able to learn about:

- Concept and principles of disaster nursing
- Causes and types of disaster
- Policies related to emergency/disaster management
- Disaster preparedness
- Team, guidelines, protocols, equipment resources
- Coordination and involvement of various agencies
- Legal aspect of disaster nursing
- Post-traumatic stress disorder
- Rehabilitation during disaster
- Principles and scope of emergency nursing
- Concepts of triage
- Coordination and involvement of different departments and facilities
- Common emergencies: shock, frost bite, heat stroke, epilepsy
- Crisis intervention
- CPR (American Heart Association guidelines)
- Stress and management
- ICU psychosis

KEY TERMS

- **Acceptable risk:** The level of potential losses that a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions.
- **Capacity:** The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.
- **Capacity development:** The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.
- **Coping capacity:** The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.
- **Critical facilities:** The primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.
- **Disaster risk:** The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.
- **Disaster risk management:** The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.
- **Disaster risk reduction:** The concept and practice of reducing disaster risks through systematic efforts, to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

TERMINOLOGY

❖ **Acceptable risk:** The level of potential losses that a society or community considers acceptable given existing social, economic, political, cultural, technical and environmental conditions.

❖ **Capacity:** The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.

❖ **Capacity development:** The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and

economic goals, including through improvement of knowledge, skills, systems, and institutions.

- **Contingency planning:** A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.
- **Coping capacity:** The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.
- **Critical facilities:** The primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency.
- **Emergency services:** The set of specialized agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations.
- **Environmental degradation:** The reduction of the capacity of the environment to meet social and ecological objectives and needs.
- **Hazard:** A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.
- **Mitigation:** The lessening or limitation of the adverse impacts of hazards and related disasters.
- **Natural hazard:** Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.
- **Recovery:** The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.
- **Response:** The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.
- **Retrofitting:** Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.
- **Risk:** The combination of the probability of an event and its negative consequences.

DISASTER

- A disaster can be defined as any occurrence that cause damage, ecological disruption, loss of human life, deterioration of health and health services on a scale sufficient to warrant as extraordinary response from outside the affected community or area.

—(WHO)

- 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)

- A disaster can be defined as an occurrence either nature or manmade that causes human suffering and creates human needs that victims cannot alleviate without assistance. **—(American Red Cross)**
- United Nations defines disaster is the occurrence of a sudden or major misfortune which disrupts the basic fabric and normal functioning of a society or community.

DISASTER NURSING

Disaster nursing can be defined as the adaptation of professional nursing skills in recognizing and meeting the nursing physical and emotional needs resulting from a disaster. The overall goal of disaster nursing is to achieve the best possible level of health for the people and the community involved in the disaster.

"Disaster nursing is nursing practiced in a situation where professional supplies, equipment, physical facilities and utilities are limited or not available".

'DISASTER' alphabetically means:

D—Destructions
I—Incidents
S—Sufferings
A—Administrative, financial failures
S—Sentiments
T—Tragedies
E—Eruption of communicable diseases
R—Research program and its implementation

Types of Disaster

- **Natural:** These are primarily natural events. It is possible that certain human activities could maybe aid in some of these events, but, by and large, these are mostly natural events.
  - Earthquakes
  - Volcanoes
  - Floods
  - Tornado, typhoons, cyclones
- **Man made:** These are mostly caused due to certain human activities. The disasters themselves could be unintentional, but, are caused due to some intentional activity. Most of these are due to certain accidents which

could have been prevented, if sufficient precautionary measures were put in place.

- Nuclear leaks
- Chemical leaks/spill over
- Terrorist activities
- Structural collapse

Principles of Disaster Nursing

- Make most efficient use of hand, brain, energy and time
- Make sure that every moment should be counted
- Expect the unexpected
- Be economical in use of supply
- **Apply 3 cardinal rules:** Assess respiration, stop hemorrhage and care of shock
- Follow the principal of save the life, preserve the function and provide comfort
- Speed in the disaster is important but don't be hasty
- Those who care for themselves but not for others should be removed from the group

Factors Affecting Disaster

Host Factors

In the epidemiological framework as applied to disaster the host is human-kind. Host factors are those characteristics of humans that influence the severity of the disaster effect. Host factors include:

- Age
- Immunization status
- Degree of mobility
- Emotional stability

Environmental Factors

- **Physical factors:** Weather conditions, the availability of food, time when the disaster occurs, the availability of water and the functioning of utilities such as electricity and telephone service.
- **Chemical factors:** Influencing disaster outcome include leakage of stored chemicals into the air, soil, ground water or food supplies. For example, Bhopal Gas Tragedy.
- **Biological factors:** Are those that occur or increase as result of contaminated water, improper waste disposal, insect or rodent proliferations improper food storage or lack of refrigeration due to interrupted electrical services. Bioterrorism: Release of viruses, bacteria or other agents caused illness or death.
- **Social factors:** Are those that contribute to the individual social support systems. Loss of family members, changes in roles and the questioning of religious beliefs are social factors to be examined after a disaster.
- **Psychological factors:** Psychological factors are closely related to agents, host and environmental conditions. The nature and severity of the disaster affect the psychological distress experienced by the victims.

Phases of Disaster

- **Pre-impact phase:** Occurs prior to the onset of the disaster. Includes the period of threat and warning.
- **Impact phase:** Period of time when disaster occurs, continuing to immediately following disaster. It involves inventory and rescues period, assessment of extent of losses, identification of remaining sources, planning for use of resource, rescue of victims, minimizing further injuries and property damage. May be brief when disasters strike suddenly and is over in minutes (air plane clash, building collapse) or lengthy as incident continues (earthquake, flood, tsunami, etc.)
- **Post-impact phase:** Occurs when majority of rescue operations are completed. It involves, remedy and recovery period, honeymoon phase—feeling of euphoria, appearances of little effect by disaster, disillusionment phase—feeling of anger, disappointment and resentment. Reconstruction phase—acceptance of loss, copping with stereo, rebuilding.
- **Rehabilitation:** The final phase in a disaster should lead to restoration of the pre-disaster conditions. The pattern of healthy needs with change rapidly, moving from casualty treatment to more primary health care.

DISASTER CYCLE AND MANAGEMENT (FIG. 9.1)

There are three fundamental aspects of disaster management:

1. Disaster response;
2. Disaster preparedness and
3. Disaster mitigation.

These three aspects of disaster management correspond to different phases in the so-called "disaster cycle":

- Disaster impact
- Mitigation
- Preparedness
- Reconstruction
- Rehabilitation

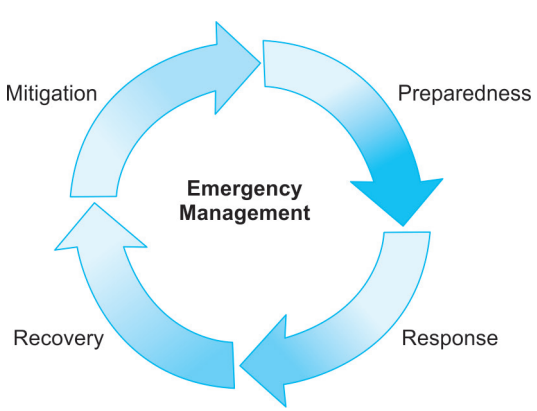

Fig. 9.1: Disaster cycle.

- Response
- Risk reduction phase before a disaster
- Recovery phase after a disaster

PHASES OF EMERGENCY MANGEMENT

The following table briefly describes each of these phases

Four Phases of Emergency Management	
Mitigation: Preventing future emergencies or minimizing their effects	• Includes any activities that prevent an emergency, reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies. • Buying flood and fire insurance for home is a mitigation activity. • Mitigation activities take place before and after emergencies.
Preparedness: Preparing to handle an emergency	• Includes plans or preparations made to save lives and to help response and rescue operations. • Evacuation plans and stocking food and water are both examples of preparedness. • Preparedness activities take place before an emergency occurs.
Response: Responding safely to an emergency	• Includes actions taken to save lives and prevent further property damage in an emergency situation. Response is putting preparedness plans into action. • Seeking shelter from a tornado or turning off gas valves in an earthquake are both response activities. • Response activities take place during an emergency.
Recovery: Recovering from an emergency	• Includes actions taken to return to a normal or an even safer situation following an emergency. • Recovery includes getting financial assistance to help pay for the repairs. • Recovery activities take place after an emergency.

Mitigation	This phase includes any activities that prevent an emergency, reduce the likelihood of occurrence, or reduce the damaging effects of unavoidable hazards. Mitigation activities should be considered long before an emergency. For example, to mitigate fire in home, follow safety standards in selecting building materials, wiring, and appliances. But, an accident involving fire could happen. To protect yourself and animals from the costly burden of rebuilding after a fire, one should buy fire insurance. These actions reduce the danger and damaging effects of fire.

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Preparedness	This phase includes developing plans for what to do, where to go, or who to call for help before an event occurs, actions that will improve chances of successfully dealing with an emergency. For instance, posting emergency telephone numbers, holding disaster drills, and installing smoke detectors are all preparedness measures. Other examples include identifying where you would be able to shelter your animals in a disaster. You should also consider preparing a disaster kit with essential supplies for your family and animals.
Response	Your safety and well-being in an emergency depend on how prepared you are and on how you respond to a crisis. By being able to act responsibly and safely, you will be able to protect yourself, your family, others around you and your animals. Taking cover and holding tight in an earthquake, moving to the basement with your pets in a tornado, and safely leading horses away from a wildfire are examples of safe response. These actions can save lives.
Recovery	After an emergency and once the immediate danger is over, your continued safety and well-being will depend on your ability to cope with rearranging your life and environment. During the recovery period, you must take care of yourself and your animals to prevent stress-related illnesses and excessive financial burdens. During recovery, you should also consider things to do that would lessen the effects of future disasters.

RESPONSIBILITIES OF VARIOUS AGENCIES IN EMERGENCY AND DISASTER MANAGEMENT

Emergency management works when local, State and Federal government fulfill emergency management responsibilities. Voluntary organizations also have important responsibilities during disasters.

Personal responsibilities	Animals owners have the ultimate responsibility for their animals. Community disaster preparedness plans try to incorporate the care of animals and their owners in their plans, but plans can only coordinate care they cannot always provide it. The best way to be prepared is to create a personal emergency plan that includes provisions to care for animals. You can learn how to prepare such a plan from your local Red Cross office, local emergency management agency and numerous other groups. Be prepared to deal with the four phases of most emergencies.

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Local government responsibilities	Local governments make plans and provide resources to protect their citizens from the hazards that threaten their communities. This is done through mitigation activities, preparedness plans, response to emergencies, and recovery operations. Wherever you live within the United States, a county or municipal agency has been designated as local emergency management agency. The local government level is the most important at which to develop emergency management plans because local governments serve as the link between you and the State and Federal agencies in the emergency management network. It includes following responsibilities: • Identifying hazards and assessing their potential risk to the community. • Determining the community's capability to mitigate against, prepare for, respond to, and recover from major emergencies. • Identifying and employing methods to improve the community's emergency management capability through efficient use of resources, improved coordination, and cooperation with other communities and with the State and Federal governments. • Establishing mitigation measures such as building codes, zoning ordinances, or land—use management programs. • Developing and coordinating preparedness plans. • Establishing warning systems. • Stocking emergency supplies and equipment. • Educating the public and training emergency personnel. • Assessing damage caused by the emergency. • Activating response plans and rescue operations. • Ensuring that shelter and medical assistance are provided. • Recovering from the emergency and helping citizens return to normal life as soon as possible.
State government responsibilities	The State emergency management office is responsible for protecting communities and citizens within the State. The State office carries out statewide emergency management activities, helps coordinate emergency management activities involving more than one community, or assists individual communities when they need help. If any community lacks the resources needed to protect itself or to recover from a disaster, the State may help with money, personnel, or other resources.

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Federal government responsibilities	At the Federal level of government, the Federal Emergency Management Agency (FEMA) is involved in mitigation, preparedness, response, and recovery activities. FEMA helps the States in several ways. FEMA provides the following programs: • Training programs and research information on the latest mitigation measures. • Review and coordination of State emergency plans. • Financial assistance. • Flood insurance to individuals and businesses in communities that join the National Flood Insurance Program (NFIP). • Subsidies to State and local offices of emergency management for maintaining emergency management programs. • Guidance and coordination for plans to warn and protect the nation in national security emergencies and • Coordination of services for disaster response and recovery activities.
Voluntary agencies and organizations	One of the most important voluntary organizations in terms of disasters is the Red Cross society. The Red Cross provides relief to victims of disasters. Each local agency is responsible for providing disaster relief services in the community. In large-scale disasters, volunteers from across the country may respond. The Red Cross provides individuals and families with food, shelter, first aid, clothing, bedding, medicines and other services.

NURSING RESPONSIBILITIES DURING DISASTER

The nursing management of mass casualties can be divided into search and rescue, first aid, triage and stabilization of victims, hospital treatment and redistribution of patients to other hospitals if necessary.

- **Search, rescue and first aid:** After a major disaster, the need for search, rescue and first aid is likely to be so great that organized relief services will be able to meet only a small fraction of the demand. Most immediate help comes from the uninjured survivors.
- **Field care:** Most injured persons converge spontaneously to health facilities, using whatever transport is available, regardless of the facilities, operating status. Providing proper care to casualties requires that the health service resources be redirected to this new priority. Bed availability and surgical services should be maximized. Provisions should be made for food and shelter. A center should be established to respond to inquiries from patient's relatives and friends. Priority should be given

to victim's identification and adequate mortuary space should be provided.

- **Triage:** When the quantity and severity of injuries overwhelm the operative capacity of health facilities, a different approach to medical treatment must be adopted. The principle of "first come, first treated", is not followed in mass emergencies. Triage consists of rapidly classifying the injured on the basis of the severity of their injuries and the likelihood of their survival with prompt medical intervention. It must be adopted to locally available skills. Higher priority is granted to victims whose immediate or long-term prognosis can be dramatically affected by simple intensive care. Patients who require a great deal of attention, with questionable benefit, have the lowest priority. Triage is the only approach that can provide maximum benefit to the greatest number of injured in a major disaster situation.

  Although different triage systems have been adopted and are still in use in some countries, the most common classification uses the internationally accepted four color code system. Red indicates high priority treatment or transfer, yellow signals medium priority, green indicates ambulatory patients and black for dead patients.

  Triage should be carried out at the site of disaster, in order to determine transportation priority, and admission to the hospital or treatment center, where the patient's needs and priority of medical care will be reassessed. Ideally, local health workers should be taught the principles of triage as part of disaster training.

  Persons with minor or moderate injuries should be treated at their own homes to avoid social dislocation and the added drain on resources of transporting them to central facilities. The seriously injured should be transported to hospitals with specialized treatment facilities.
- **Tagging:** All patients should be identified with tags stating their name, age, place of origin, triage category, diagnosis, and initial treatment.
- **Identification of dead:** Taking care of the dead is an essential part of the disaster management. A large number of dead can also impede the efficiency of the rescue activities at the site of the disaster. Care of the dead includes: (1) removal of the dead from the disaster scene (2) shifting to the mortuary (3) identification (4) reception of bereaved relatives. Proper respect for the dead is of great importance.
- **Relief phase:** This phase begins when assistance from outside starts to reach the disaster area. The type and quantity of humanitarian relief supplies are usually determined by two main factors: (1) the type of disaster and (2) the type and quantity of supplies available locally.

  Immediately following a disaster, the most critical health supplies are those needed for treating casualties, and preventing the spread of communicable diseases. Following the initial emergency phase, needed supplies will include food, blankets, clothing, shelter, sanitary engineering equipment and construction material. A rapid damage assessment must be carried out in order to identify needs and resources. Disaster managers must be prepared to receive large quantities of donations. There are four principal components in managing humanitarian supplies: (a) acquisition of supplies, (b) transportation, (c) storage and (d) distribution.
- **Epidemiologic surveillance and disease control:** Disasters can increase the transmission of communicable diseases through following mechanisms:
  - Overcrowding and poor sanitation in temporary resettlements. This accounts in part, for the reported increase in acute respiratory infections, etc.
  - Population displacement may lead to introduction of communicable diseases to which either the migrant or indigenous populations are susceptible.
  - Disruption and the contamination of water supply, damage to sewerage system and power systems are common in natural disasters.
  - Disruption of routine control programs as funds and personnel are usually diverted to relief work.
  - Ecological changes may favor breeding of vectors and increase the vector population density.
  - Displacement of domestic and wild animals, who carry with them zoonoses that can be transmitted to humans as well as to other animals. Leptospirosis cases have been reported following large floods (as in Odisha, India, after super cyclone in 1999). Anthrax has been reported occasionally.
  - Provision of emergency food, water and shelter in disaster situation from different or new source may itself be a source of infectious disease.

    The principles of preventing and controlling communicable diseases after a disaster are to:
    - Implement as soon as possible all public health measures, to reduce the risk of disease transmission
    - Organize a reliable disease reporting system to identify outbreaks and to promptly initiate control measures
    - Investigate all reports of disease outbreaks rapidly
- **Vaccination**
  - Health authorities are often under considerable public and political pressure to begin mass vaccination programs, usually against typhoid, cholera and tetanus.
  - The WHO does not recommend typhoid and cholera vaccines in routine use in endemic areas. The newer typhoid and cholera vaccines have increased efficacy,

but because they are multidose vaccines, compliance is likely to be poor.
- Significant increases in tetanus incidence have not occurred after natural disasters. Mass vaccination of population against tetanus is usually unnecessary. The best protection is maintenance of a high level of immunity in the general population by routine vaccination before the disaster occurs, and adequate wound cleaning and treatment.
- If tetanus immunization was received more than 5 years ago in a patient who has sustained an open wound, a tetanus toxoid booster is an effective preventive measure.
- If cold-chain facilities are inadequate, they should be requested at the same time as vaccines.

❖ **Nutrition:** Natural disaster may affect the nutritional status of the population by affecting one or more components of food chain depending on the type, duration and extent of the disaster, as well as the food and nutritional conditions existing in the area before the catastrophe. Infants, children, pregnant women, nursing mothers and sick persons are more prone to nutritional problems after prolonged drought or after certain types of disasters like hurricanes, floods, land or mudslides, volcanic eruptions and sea surges involving damage to crops, to stocks or to food distribution systems.
The immediate steps for ensuring that the food relief program will be effective include:
- Assessing the food supplies after the disaster
- Gauging the nutritional needs of the affected population
- Calculating daily food rations and need for large population groups and
- Monitoring the nutritional status of the affected population.

❖ **Rehabilitation:** The final phase in a disaster should lead to restoration of the pre-disaster conditions. Rehabilitation starts from the very first moment of a disaster. A provision by external agencies of sophisticated medical care for a temporary period has negative effects. On the withdrawal of such care, the population is left with a new level of expectation which simply cannot be fulfilled.
In first weeks after disaster, the pattern of health needs will change rapidly, moving from casualty treatment to more routine primary health care. Services should be reorganized and restructured. Priorities also will shift from health care towards environmental health measures. Some of them are as follows:

Water Supply

A survey of all public water supplies should be made. This includes distribution system and water source. It is essential to determine physical integrity of system components, the remaining capacities, and bacteriological and chemical quality of water supplied.

The main public safety aspect of water quality is microbial contamination. The first priority of ensuring water quality in emergency situations is chlorination. It is the best way of disinfecting water. It is advisable to increase residual chlorine level to about 0.2–0.5 mg/liter. Low water pressure increases the risk of infiltration of pollutants into water mains. Repaired mains, reservoirs and other units require cleaning and disinfection.

The existing and new water sources require the following protection measures:
❖ Restrict access to people and animals, If possible, erect a fence and appoint a guard
❖ Ensure adequate excreta disposal at a safe distance from water source
❖ Prohibit bathing, washing and animal husbandry, upstream of intake points in rivers and streams
❖ Upgrade wells to ensure that they are protected from contamination
❖ Estimate the maximum yield of wells and if necessary. In many emergency situations, water has to be trucked to disaster site or camps. All water tankers should be inspected to determine fitness, and should be cleaned and disinfected before transporting water.

Food Safety

Poor hygiene is the major cause of food-borne diseases in disaster situations. Where feeding programs are used (as in shelters or camps) kitchen sanitation is of utmost importance. Personal hygiene should be monitored in individuals involved in food preparation.

Basic Sanitation and Personal Hygiene

Many communicable diseases are spread through fecal contamination of drinking water and food. Hence, every effort should be made to ensure the sanitary disposal of excreta. Emergency latrines should be made available to the displaced, where toilet facilities have been destroyed. Washing, cleaning and bathing facilities should be provided to the displaced persons.

Vector Control

Control program for vector-borne diseases should be intensified in the emergency and rehabilitation period, especially in areas where such diseases are known to be endemic. Of special concern are dengue fever and malaria, Leptospirosis and rat bite fever, typhus, and plague. Flood water provides ample breeding opportunities for mosquitoes.

POST-TRAUMATIC STRESS DISORDER AND REHABILITATION OF DISASTER VICTIMS

PTSD is a set of reactions to an extreme stressor such as intense fear, helplessness, or horror that leads individuals to relieve the trauma.

Signs and Symptoms

- Episodes of repeated relieving of the trauma in intensive memories "(flashbacks)" or dreams
- Flashbacks occurring—against the persisting background of a sense of "numbers" and emotional blunting
- Detachment from other people
- Unresponsiveness to surroundings
- Anhedonia can inability to experience pleasure
- Avoidance of activities and situations reminiscent of the trauma
- Fear and avoidance of cues that remind the sufferer of the original trauma
- May be dramatic, acute bursts of fear, panic or aggression, triggered by stimuli arousing a sudden recollection and re-enactment of the trauma or of the original reaction to it.

Predisposing Factors

- Personality traits—compulsive, asthenic
- History of neurotic illness childhood abuse, who then suffer subsequent trauma.

Etiology

- Military combat
- Bombing or war
- Kidnapping
- Robbery
- Abuse—physical, sexual (e.g. rape) or psychological
- Terrorist attack
- Prisoner of war
- Torture
- Natural or man-made disasters
- Witnessing violence (domestic, criminal)
- Severe automobile accidents
- Seeing dead body or body parts
- Serious injury or death of family member or a close friend
- Diagnosis of life-threatening disease in self or child
- Unexpected death of family member or a close friend

High-risk Group

- Children
- Disabled
- Elderly
- Women-young, single, widowed, orphaned, disabled, have lost children
- Orphans from orphanages
- Having history of childhood abuse

PRINCIPLES OF NURSING CARE IN PTSD

- Consistent empathic approach to help the clients tolerate the intense memories and emotional pain.
- Simple reorienting, reassuring statements to prevent suicidal ideation.
- Trusting relationship to convey a sense of respect, acceptance of their distress and belief in the client's reactions.
- Reconnect the individuals with the existing support system.
- Restart activities that provide a sense of mastery.
- Promote independence and the client's highest level of functioning.
- Manager counter transference reactions.
- Group therapies to decrease isolation, to discuss the effect of trauma and develop alternative coping mechanisms.
- Encourage the client to write/verbalize to manage reactions and feelings.
- Help the client identify community resources.
- Teach anxiety management strategies like relaxation, breaking techniques and diverting the individual's mind through involvement in activities.
- Changes in lifestyle such as following a healthy diet, avoiding stimulants, intoxicants, regular exercise and adequate sleep. Use medication as recommended.

Rehabilitation of Disaster Victims

In the post-disaster period, along with relief, rehabilitation and the care of physical health and injuries, mental health issues need to be given importance. Apart from material and logistic help, the suffering human beings will require human interventions.

Challenges of Rehabilitation

- Ensuring that people living in the relief camps have access to, regular food supplies, additional sets of clothes, sanitation drinking water, public health intervention—immunization, preventive health care, heat and rain proof shelters, child care and education facilities and support.
- Ensuring access to basic entitlements in terms of their compensation, government schemes and credit institutions so that they can rebuild their homes and livelihood, back to the same levels as before the disaster.
- Ensuring livelihood reintegration.
- Ensuring legal right and social justice to the disaster victims including filing of FIRs, investigation and contesting cases in the court.

- **Medical monitoring:** The continuous monitoring of the patient's vital signs, and the noise monitoring devices produce can be disturbing and create sensory overload.

Medical Causes

- **Pain** which may not be adequately controlled in an ICU.
- **Critical illness:** The pathophysiology of the disease, illness or traumatic event—the stress on the body during an illness can cause a variety of symptoms.
- **Infection** creating fever and toxins in the body.
- **Metabolic disturbances:** Electrolyte imbalance, hypoxia (low blood oxygen levels), and elevated liver enzymes.
- **Heart failure** (inadequate cardiac output).

Signs and Symptoms

The cluster of psychiatric symptoms of ICU psychosis includes:

- Extreme excitement
- Anxiety
- Restlessness
- Hearing voices
- Clouding of consciousness
- Hallucinations
- Nightmares
- Paranoia
- Disorientation
- Agitation
- Delusions
- Abnormal behavior

Diagnostic Evaluation

It is mainly diagnosed with the help of confusion assessment method (CAM).

The diagnosis of ICU psychosis can be made only in the absence of a known underlying medical condition that can mimic the symptoms of ICU psychosis. A medical assessment of the patient is important to search for other causes of mental status abnormality such as:

- Stroke
- Low blood sugar
- Drug or alcohol withdrawal and
- Any other medical condition that may require treatment.

Treatment

- The treatment of ICU psychosis clearly depends on the cause. Many times the actual cause of the psychosis involves many factors, and many issues will need to be addressed to relieve the symptoms.
- A first step is a review of the patient's medications. The physician in charge of the patient along with the pharmacist can review each of the patient's medications to determine if they may be influencing the delirium.
- Family members, familiar objects, and calm words may help.
- Sleep deprivation may be a major contributing factor. Therefore, providing a quiet restful environment to allow the patient optimal sleep is important.
- Controlling the amount of time visitors are allowed to stimulate the patient can also help. Dehydration is remedied by administering fluids.
- Heart failure requires treatment with digitalis.
- Infections must be diagnosed and treated.
- Sedation with anti-psychotic agents may help. A common medication used in the hospital setting to treat ICU psychosis is haloperidol or other medications for psychosis (antipsychotics).

Summary

A disaster is a terrible or abrupt catastrophe of such magnitude that the affected community requires exceptional measures to deal with outside support or international relief. This is because a disaster is the outcome of a widespread ecological breakdown in the relationship between people and their environment. The World Health Organization defines disaster 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." The owners of animals have the ultimate responsibility for the well-being of their pets. Plans for community disaster preparation make an effort to include provisions for the care of animals and the people who own them, but these plans can only coordinate the care; they cannot always supply the care themselves. Creating a personal emergency plan that accounts for supplies to care for animals is the most effective strategy to be ready for an unexpected event. You may get information on how to put together a plan of this kind by contacting the local chapter of the Red Cross, your community's disaster management organization, or the American Red Cross. The owners of animals have the ultimate responsibility for the well-being of their pets. Plans for community disaster preparation make an effort to include provisions for the care of animals and the people who own them, but these plans can only coordinate the care; they cannot always supply the care themselves. Creating a personal emergency plan that accounts for supplies to care for animals is the most effective strategy to be ready for an unexpected event. You may get instructions on how to create such a plan by contacting the local office of the Red Cross, your local disaster management agency, or any number of other organizations. Be sure you are ready to handle the four different stages that are typical of most situations. The residents of a community may be protected from the dangers that threaten that community by the local government drawing up protective measures and providing the necessary resources. This is accomplished via the implementation of readiness plans, emergency response activities, mitigation strategies, and recovery procedures. In each and every one of the fifty states that make up the United States, a county or municipal entity has been delegated the responsibility of acting as the local emergency management agency. The level of the local government is the most significant one at which to

build disaster management plans. This is due to the fact that the local government acts as the connecting link between you and the state and federal agencies that are part of the emergency management network. The following are some of the obligations that come with it: Locating possible dangers and determining how seriously they pose a threat to the community. Determining the community's capacity to prevent catastrophic disasters, to prepare for them, to react to them, and to recover after they have occurred. Identifying and putting into practice ways that will enhance the community's capacity for disaster management by making more effective use of available resources, fostering more coordination, and working in conjunction with other municipalities as well as the state and federal governments. The implementation of mitigation strategies, including but not limited to construction rules, zoning legislation, or land-use management programs, developing and organizing preparations for emergency preparedness. The implementation of various early warning systems. Storing away essential equipment and supplies for use in an emergency. Providing training for first responders and educating the general public. Conducting a damage assessment as a result of the situation. Putting reaction preparations and search and rescue activities into action. Making certain that a safe place to stay and access to medical care are provided. Recovering from the crisis and assisting residents in getting back to their usual lives as quickly as feasible.

MULTIPLE CHOICE QUESTIONS

1. The system of 'triage' is based upon which of the following principles?
   A. Treating patients in order of priority
   B. Treating first come first served
   C. Treating the quickest and easiest first
   D. Treating those that complaint the most first
2. Which of the following statements regarding track and triggers systems is true?
   A. Track and trigger systems are used for monitoring the physical location of patients
   B. Track and trigger systems convert physiological measurements into a level of clinical risk and indicate appropriate action
   C. Track and trigger systems are used to sort ED patients into order of priority
   D. Track and trigger systems have no place in the ED
3. To correctly size an oropharyngeal airway in an adult, you should:
   A. Stimulate the gag reflex
   B. Choose a device with the same diameter as the patient's little finger
   C. Choose a device which extends from the patient's incisors to the angle of the jaw
   D. Choose a device which extends from the patient's nares to the tragus
4. What is the key factor which distinguishes decompensated shock from compensated shock?
   A. Tachycardia
   B. Tachypnoea
   C. Hypotension
   D. Vasoconstriction
5. When is a diagnosis of epilepsy made?
   A. After someone has had a seizure
   B. When a person has a tendency to have recurrent seizures
   C. When a person thinks they have epilepsy

Answer Key

1. A 2. B 3. C 4. C 5. B

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ADULT HEALTH NURSING–II

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Dipak Sethi PhD is Dean and Professor at Noida International University, College of Nursing, Greater Noida, Uttar Pradesh, India. He is also a visiting professor at Yesbud University, Zambia. His doctoral studies were concluded at Symbiosis International University, Pune, Maharashtra. He has 16 years of experience in the academic field. With over 50 research papers to his credit, he has published 22 research papers in SCOPUS-indexed journals and 5 in PubMed-indexed journals. Also, he possesses two copyrights and three patents. Numerous books for *Medical-Surgical Nursing, Applied Pharmacology, Pathology, Microbiology,* and *Health Informatics* have been authored by him. In addition, he has delivered presentations at global conferences such as the World Nursing Congress in Chicago and Dubai.

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