

Community Health Nurse in Disaster Management

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Since the beginning of time, disasters have been a part of life. Disasters can violently disrupt our day-to-day lives and change the history forever. As the population of the world continues to grow, so does the potential for mass casualty incidents associated with disasters. The more densely populated area, the greater the risk for damage to property and injury or loss. Emergencies and disasters do not affect only health and well-being; frequently large number of people are displaced, killed or injured, or subject to greater risk of epidemics. Considerable economic harm is also common.

Disaster is an occurrence that causes damage, economic disruption, loss of human life and disorientation of health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area. Disaster nursing is the systematic and flexible utilization of knowledge and skills specific to disaster related nursing, and the promotion of a wide range of activities to minimize the health hazards and life threatening damage caused by disasters in collaboration with other specialized fields. Disaster nursing should include nurs-

ing activities ranging from disaster prevention to initial, medium, and long-term nursing care.

Types of Disasters

There are two types of disasters:

- Natural disaster, and
- Man-made disaster

Bonet (1990) classifies disasters based on a numeric categorization which includes: 1) Minor disaster - it conveys an upper limit of 25 persons injured or killed, 2) Moderate disaster - it may include up to 100 persons injured or killed and 3) Major disaster - it exceeds 100 persons injured or killed.

Objectives of Disaster Nursing

- To effectively reduce the impact of disaster on human life and health,
- To participate in the coordinated efforts of all groups to reduce loss of life, property damage, social and economic disruption, and
- To initiate rehabilitation.

Levels of Disaster Prevention

Primary Prevention: Measures of primary prevention are: awareness of risk factors, individual and community preparedness and safety practices.

Secondary Prevention: It includes interventions like immediate rescue, prevention of additional injury or death after initial occurrence, first-aid, organized community response, definitive medical care, shelters and family location and identification services.

Tertiary Prevention: Various actions taken for rehabilitation and disability limitation of disaster victims are; long-term alternative shelter, relocation services and family and community rehabilitation.

Principles of Disaster Management

Sanford (1984) listed eight principles for disaster management; 1) Prevention of occurrence, 2) Minimizing casualty number, 3) Preventing further casualties, 4) Rescuing the injured, 5) Providing first-aid, 6) Evacuating the injured, 7) Providing definitive care, and 8) Facilitating reconstruction - recovery.

Stages of Disaster Management

Preparedness

a) Personal preparedness: Great stress is placed on the nurse with client responsibilities who also becomes a disaster victim. The Community Health Nurse who will be assisting in disaster relief efforts must be as healthy as possible, both

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physically and mentally.

b) Professional preparedness: It requires that nurses become aware of and understand the disaster plans at their workplace and community. Nurses who take disaster preparation will take time to read and understand work place and community disaster plans and participate in disaster drills and community mock disasters. Personal items that are recommended for any nurse preparing to help in disaster to be kept ready include: a copy of professional license, personal equipments, such as stethoscope, a flash light and extra batteries, cash, weather appropriate clothing, record keeping materials and pocket sized reference book. It is recommended that all workers be certified in first aid and CPR.

c) Community preparedness: A community prepared for emergencies can rescue people rapidly and provide life saving first aid. Reliance on external assistance will lead to greater loss of life and harm to the community. Community should have solid disaster plan on paper and should participate in yearly mock disaster drills.

Response

The response is determined by the levels of disaster. Levels are not determined by the number of casualties, but by the amount of resources needed. Level I disaster requires activation by the local emergency medical system in cooperation with local

community organizations. A family fire would be an example of a level I disaster. Level II disaster requires more of a regional response necessitating several casualty protocols, example - building collapse. Level III disaster is a wide spread destruction. State and national authorities of all kinds must be prepared to respond, example - tsunami, earthquake, etc.

Recovery

Recovery occurs as all involved agencies pull together to restore the economic and civic life of the community. For example, the government takes the lead in rebuilding efforts, while the business community attempts to provide economic support. Many religious organizations help with rebuilding efforts as well. The internal revenue service educates victims as to how to write off losses, and the Department of Housing and Urban Development provides grants for temporary housing. The CDC provides continuing surveillance and epidemiological services. Voluntary agencies assess individual and community needs and meet those needs, as far as possible.

Role of Community Health Nurse

The role of Community Health Nurse in disaster management varies according to the different stages.

Disaster preparedness:

- ♦ Facilitate preparation within the community and place of employment,
- ♦ Initiate and update disaster plan,

- ♦ Provide disaster educational programmes specific to the area,
- ♦ Organize disaster drills (Mass drills),
- ♦ Provide an updated record of vulnerable population within the community.
- ♦ Educate the vulnerable population about what impact the disaster might have on them,
- ♦ Review individualized strategies like, availability of specific resources in the event of emergency,
- ♦ As a community advocate, the community health nurse should always seek to keep a safe environment,
- ♦ The Community Health Nurse has an obligation to assess and report environmental health hazards, and
- ♦ The Community Health Nurse should have an understanding of what community resources will be available after a disaster strike, and most important, how the community will work together.

Disaster response

The role of Community Health Nurse during disaster depends greatly on the nurse's past experience, role in the institution's and community preparedness, specialized training, and special interest.

- ♦ Community Health Nurse as a member of an assessment team has the responsibility of feeding back accurate information to relief manager to facilitate rapid rescue and recovery. He/She is needed to make

home visits to gather required information. Types of information included in initial assessment are: geographical extent of disaster's impact, population at risk or affected, presence of continuing hazards, injuries and deaths, availability of shelter, current level of sanitation and status of health care infrastructure.

- Community Health Nurse should begin the triage. Triage is the process of separating casualties and allocating treatment based on the victim's potential for survival. High priority is always given to victims who have life threatening injuries but who have a high probability of survival once stabilized. Second priority is given to victims who have injuries with systemic complications that are not yet life threatening injuries but who can wait up to 45 to 60 minutes for treatment. Last priority is given to those victims who have local injuries without immediate complications and who can wait several hours for medical attention.
- Ongoing assessment or surveillance reports are just as important as initial assessment. These indicate the continuing status of affected population and the effectiveness of ongoing relief efforts. Nurses involved in ongoing surveillance use the various methods to gather information, which include interview, observation, physical examination,

health and illness screening, surveys and records.

Disaster recovery

- Community Health Nurses must remain vigilant in teaching proper hygiene and making sure immunization records are up to date.
- Referrals to mental health professionals should continue as long as the need exists.
- The Community Health Nurse must remain alert for environmental hazards during the recovery phase of the disaster.
- Home visits may lead the nurses to uncover situations such as faulty housing structure, lack of water supply or lack of electricity.
- The nurse must be attentive to the dangers of live or dead animals and rodents that might be considered harmful to a person's health.
- Case finding and referral remains critical during the recovery phase and in some cases will continue for a long time.

Psycho-social intervention in the aftermath of disaster

Community level interventions – Keep the people in their natural groups if they must be relocated; Provide social activity for new community; and Group meetings in which participants brainstorm about various themes for rebuilding helps survivors to recognize the loss, to identify and discuss local problems, and to work together towards and achieve

able specific goal.

Family level interventions – Encourage families to talk together about their experiences, losses and feelings; encourage families to resume normal activities to the extent possible; and help families handle conflict appropriately so as to minimize negative encounters caused by the strain, fatigue, and irritability that often follow trauma.

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