

ROLES OF THE UNIVERSITY IN DISASTER MANAGEMENT

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Overview on disaster

The World Health Organisation defines a 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. (1)

A disaster can be either natural (rain, flood, cyclone, storm, land slides, earthquake and volcanoes) or man-made (war, riots, accident (train, air and ship), industrial accidents, fires, bomb explosions, nuclear explosions and ecological disasters).

The director-general of World Health Organization (WHO), Dr Gro Harlem Brundtland (1999) stated that the distinction between natural disasters and human-induced emergencies is artificial. For him, the natural hazards, which give an impact on human vulnerabilities are mostly determined by human causes. (2)

Disasters will always occur and no civilization in history has been immune from their effects. The risk of disasters is increasing. There are several reasons for this, apart from improved data collection, including global warming, increased technology (especially in developing countries with immature safety systems), rapid human population changes and urbanization, civil war and conflict with a potential for population displacement and the rise of terrorism. (3)

The roles of university during acute phase of disaster

The role of the university spans all phases of disaster cycle. As an educational and research institution, the university is by necessity involved in all the phases since it is charged with the mission of contributing broadly to society. The university,

however, is mostly limited to mobilizing funds and emergency voluntary support. Considering the limitation, the university can offer an assistance in other aspect especially in terms of academic contributions such as an institute for research and education on disasters, policy proposals, be involved in reconstruction phase as a member of local community, carry out a public role as an established NGO and the dispatch of longer term volunteers and other aids. (4)

Medical institutions in Malaysia may play a role during the emergency phase of disaster. The availability of about eight medical institutions with different kinds of specialties under the government funds is an advantage. Actually it is possible for us in medical institutions to take turns to provide medical assistance at disaster area. We have the experience of providing medical care at disaster area under the Non Governmental Organizations. However, we need to face the fact that the involved healthcare providers were not trained in disaster medicine. In addition, they do not see this as an opportunity for research development.

Disaster medical assistance should, at a minimum, be based on a full understanding of disaster epidemiology, timeliness and realistic response times. Their efforts should match needs rather than be imposed whether they are immediate or delayed, which entails prior planning with a clear mission of purpose and duration of stay and an exit strategy. The response should therefore be beneficial to the local community, be culturally appropriate and consistent with the local practice. There should be clear lines of communication between the team and both local coordination and an operations centre at home in order to ensure the success of the mission.

Taking these into considerations, disaster training should be encouraged among our staff. There are few training courses available such as Core Disaster Life Support, Basic Disaster Life Support

and Advanced Disaster Life Support. The overall goal of these courses is to introduce participants to basic concepts on how to respond to natural and man-made disasters. These courses or programs orientation are targeted to those who will have a significant role in disaster management. As such, it is intended for those in various types of disciplines including hospital administration, medical reserve corps, law enforcement, fire rescues, and government to enhance skills and ensuring their ability to perform during particular phase of disaster. (5, 6)

Indeed, a serious need for education in disaster medicine does exist. Comprehensive fellowship training programs for medical officers that are based on valid scientific evidence should be developed. Organized educational programs covering the basic principles of disaster medicine should be integrated into the training of all healthcare providers and volunteers in the country. Academic institutions definitely have a role in the educational process in disaster medicine for their communities.

The roles of university in disaster reduction

Disaster reduction can be accomplished by carrying out a program to identify and assess the physical characteristics of likely disaster, formulate and implement strategies to reduce these disasters and anticipate the disaster impacts and plan response actions in light of these anticipated effects. In most instances, universities are not that suitable to play the role of “contractor” to produce a viable disaster preparedness and risk management plan. That may be better done by the government agencies or private contractors. However, universities play a major role in the planning and implementation efforts since all these efforts require major scientific base whereby the proper information and the uncertainties associated with disaster impact need to be fully understood before the preparedness plan can be translated into policy and regulatory measures. Universities are often, but not always, the source of pertinent information and the developers of analytical and critical methods and tools. (7) If these potential assets are combined with strong management skills typically found in the private sector, then academia can make major and lasting contributions.

The roles of university in community education and training

Public training in disaster medicine and preparation are also as important as medical personal

training. The community awareness regarding disaster response has increased over the decade because of the frequent occurrence of the disasters and the increased visibility of disaster response through the news and medias. In addition, the public itself is a major human resource during the disastrous event. Such public education programs should be incorporated into emergency medical services and emergency medicine outreach programs.

University, as an academic institution may need to develop and organize a comprehensive educational disaster programs or curriculum for the community. The programs should be simple, easy to understand, high quality and low cost. These programs should be conducted by those who are actively involved within the institutions, organizations and communities in order to provide accurate and scientifically valid training regarding disasters. (8, 9)

The roles of university in research

Research may be one of the most misunderstood components of disaster medicine. It is often regarded by disaster responders as an esoteric undertaking carried out by individual who have little understanding of “the real world” and less understanding of clinical disaster issues. In reality, research into disasters is one of the most vital function that can be carried out by those involved in such events. The best disaster researches are individuals with substantial experience in disaster response and planning because they know what questions need to be asked. Conducting research on a disaster is an attempt to determine the truth about the event itself. Without such efforts and application of the resulting knowledge to the disaster planning and response process, mistakes will continuously be repeated.

Until the last decade, disaster medical researches had been limited to narrative descriptions of the event(s) that precipitated the disaster, reports on the numbers of persons killed, injured, and/or displaced, and/or descriptions of what medical interventions were or were not applied. The adequacy of the medical interventions has been judged in terms of the response and related to the needs as assessed by the providers or any other external group and not necessarily related to the real needs of the affected population.

Unfortunately, many of these reports have been biased and self-serving, as they have been performed by the responding agencies themselves. They have had little value in the elimination or

modification of hazards, reduction of risks, improvement of the absorbing and/or buffering capacities, reduction of vulnerability, and/or enhancement of preparedness for responses of future events or for the design and implementation of future relief activities. Little in the way of hypotheses that may affect the future have been generated, or much less, tested.

Experimental and prospective studies of the effects of an intervention relative to disasters have not been reported. For the most part, research in disaster medicine is performed retrospectively, after the impact phase and during the recovery activities. Collecting prospective information during a disaster is considered impossible or ethically inappropriate. Applications for the use of experimental studies in the setting of disasters or events that result in mass casualties may be quite limited, and the design, acceptance, and implementation of such studies in these settings remain as tasks for the future. Universities and other agencies should jointly come together to consider and improve the above matter. (10)

Conclusion

The roles of university span all phases of disaster cycle. The university plays a particular essential role during the impact, emergency phase, risk reduction strategies, preparedness and mitigation. The roles of university in disaster management include disaster education, relief and support to the affected community, and to grasp the situation from a research perspective. We also have significant roles in mid term and long-term support such as academic contributions, policy proposal and continuously dispatching of longer-term volunteers and other aid.

A university also has a role in educating, developing scenarios, and providing basic and advance training to the enthusiastic volunteers. Furthermore, by establishing coalitions, it becomes more possible for the university to do research suited to the needs of particular community.

Universities provide a universe of knowledge and expertise that can be readily mobilized when needed. It is often in the interdisciplinary overlap of professional domains where the solutions lie. Universities can readily provide the combination of breadth and width of skills that are conducive to find the optimum solutions. Together with strong management skills and the available assets, academia can make major and lasting contribution.

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