EDITORIAL REVIEW

Editorial Comments—Development of an "All-Hazards" Hospital Disaster Preparedness Training Course Utilizing Multi-modality Teaching

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The development and evaluation of an "all-hazards" hospital disaster preparedness training course is the focus of this practical study. The authors evaluated a hospital-based course that uses a combination of learning approaches including lectures, skill development sessions, and exercises to teach hospital disaster preparedness. Evaluation of such courses provides important information for the development of more evidence-based teaching programs, though many evaluations focus solely on students' evaluation of satisfaction with the quality of teaching, teaching arrangements, and resources. Frequently, and perhaps inevitably, evaluations of student satisfaction results in highly positive findings and the benefits of such evaluation may be limited to the implementation of minor changes to courses in response to feedback provided by students. In this case, the authors considered measures of student outcome and utilized a pre-test and post-test design to highlight the increase in knowledge obtained through participation in the training course, i.e., they have addressed an important objective of course evaluation. That is, to determine if the course has achieved its objectives and resulted in a measurable increase in knowledge and skills of the participants.

Participants attending the two-day Hospital Disaster Life Support (HDLS) course were assessed by pre- and post-test evaluations and completed a course evaluation survey at the conclusion of the training. The pre-/post-test demonstrated significant improvement in knowledge, and student evaluations were positive. Participants included physicians, nurses, administrators/directors, and other hospital personnel.

The study's starting point is the view that training for hospital-based personnel largely is insufficient or unavailable. This conclusion appears to apply well enough in many countries, especially in regard to access to training. The authors argue that the use of multiple modalities for teaching has the potential to increase the effectiveness of training. This suggestion is supported by contemporary educational theory and practice. The role and use of other flexible teaching approaches, such as external mode and Internet-based courses, have not been explored in the paper, but also may contribute to making training more accessible and pervasive.

The HDLS, as is the case with many disaster training courses, focused on the teaching of management of the disaster situation. Interestingly, it also provided training in patient care during a disaster. It could be argued that courses designed to meet the needs of the whole range of hospital personnel who may have a role in hospital-based disaster management should concentrate on general principles of emergency management. Staff who may assume patient care roles could receive complementary training to assist them in applying the clinical skills that they already have to the special context and situation of a disaster response.

The paper asks a number of questions about short courses in disaster health care:

1. How do such courses fit into a framework for the on-going education of staff?
2. How do short and often introductory courses articulate with higher level or more specialized training in disaster health, thus providing

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credit that can be transferred into higher level courses? What purpose do short duration courses serve?
3. Is the principal objective to raise awareness about basic principles and protocols or truly to develop fully competent practitioners? The HDLS, for example, focused on seven competencies and several specific disaster situations including biological, conventional, radiological, and chemical mass-casualty incidents.
4. Can competence be achieved in the duration of a two-day, short course, and if so, at what level and how is this best determined?
5. Which competencies should be adopted among the competing groups of competency statements?
6. How well do we establish the necessary linkages between the selected competencies and teaching approaches and assessment?
7. What basis exists at the level of research and standards to underpin the content for teaching and for the development of individuals' competence?
8. In hospital-based courses, should we focus on mass-casualty competencies or disaster management competencies or a combination of these?

What other strategies might complement the gains obtained through the conduct of short courses in the hospital setting? For example, what role can "just-in-time training," conducted during a disaster response, play in supporting staff when their roles are expanded or extended—as they often are in disaster situations?

How can hospitals more effectively engage with the principles of disaster preparedness and mitigation? Is the response phase given precedence in training programs and is this appropriate? Can hospitals play a role in preparing communities to potentially lessen the impact of a disaster event? It could be argued that hospital-based training focuses too much on response and recovery rather than on our efforts to prepare by strengthening our communities and our staff (this includes developing and maintaining our lifelines and ensuring mechanisms for family support) will pay substantial dividends when an incident occurs.

As the authors conclude, the best strategy for teaching hospital disaster preparedness to hospital-based employees remains contentious. Several assumptions in the field of disaster health education may not have surfaced and interrogated adequately in the past. Evaluation research helps us to generate change and this study provides us with insight into a strategy for evaluating the achievement of disaster training course objectives.

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