

Education for EMTs is split into three courses: (1) basic; (2) intermediate; and (3) continuing education. In order to make the courses accessible for all EMTs in Iceland, a different educational approach is used, depending on where the EMTs are located. The school and the students, especially in the rural and remote areas, depend on the distance learning technique, i.e., videoconferencing and the school's website. Most of the longer courses (basic and intermediate) are taught in two or more places at the same time by using the videoconference for lectures, where the students can watch lectures "on air" followed by skill stations in each place. The results of a basic course taught simultaneously in six different locations using videoconferencing will be highlighted. However, for shorter courses, like continuing education, an organization is made so that the courses can be held in the hometowns of the EMTs. It is clear that different educational approaches can raise the level of EMS education in the country, especially for those working and living in the rural and remote areas, as it is more likely students will attend courses when they are "brought" to them.

Finally, the presentation will cover the future challenges facing the EMS education in Iceland. The aim is to raise the standards even higher and move it to a university level with the option of offering Paramedic education in Iceland in cooperation with other EMS colleges.

**Keywords:** approaches; education; emergency medical technician (EMT); Iceland; remote areas

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### **Training for Major Incidents: Developing a Training and Awareness Course for Members of Mobile Medical Teams**

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With each new major incident event, the requirement for in-hospital staff, both medical, nursing, and others, to leave the hospital to attend the scene becomes more likely for National Health Service (NHS) acute trusts. Arrangements for medical and nursing staff that may "go mobile" vary greatly from region to region and even within local health communities. They remain relatively unregulated and are supported by a variety of local and regional initiatives.

In an exploratory study, Moakes and Kilner (2001) studied the views of nurses in accident and emergency departments who could be asked to form or join a mobile medical team at the scene of a major incident. It appeared that few had little idea of their roles and responsibilities, and a number of nurses involved in the study admitted that they were prepared inadequately and felt that they had little to contribute to the effective care of victims at the scene of a major incident. This view was upheld by the nursing and medical staff working in the two busy emergency departments at North Bristol NHS Trust.

Fortunately, most nurses, in particular those working in emergency departments, are familiar with the need to be flexible and embrace role expansion. Specific strategies and educational programs have been developed, allowing nurs-

es' roles to evolve, i.e., the development of the autonomous Emergency Nurse Practitioners.

This presentation will outline how a health community in the southwest of England developed a one-day training awareness course for medical, nursing, and technical staff who are required to be available to mobilize in response to a major incident within the locality. The original concept was created by a multidisciplinary collaborative, involving an ambulance service, fire and rescue service, and two acute NHS hospital trusts.

More than 100 personnel have been trained through the course over the past three years. The need for the course will be reviewed, along with course content, and intended lessons learned. Appropriate required personal protective equipment will be addressed, and roles and responsibilities of each individual while working with disciplined emergency services personnel in the hostile environment of a major incident will be reviewed. The need for regular update, revalidation, and refresher training will be discussed.

**Keywords:** assessment; England; mobile medical team; mobilization; national health service (NHS); nursing; training

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### **Free Papers Theme 6: Psychosocial Aspects of Disaster**

#### **An Emotional Preparedness and Resilience Curriculum for High-Risk, Fourth-Grade Children: An Essential Aspect of Comprehensive Disaster Preparedness**

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Enhancing children's emotional preparedness and resilience is an integral part of disaster preparedness and post-disaster intervention. A study of New York City school children showed that only 34% of those with probable post-traumatic stress disorder and impaired functioning in the months after the 11 September 2001 attacks, received counseling, either within or outside of the schools.

Racial-ethnic and low-income children and families especially were likely to be affected.<sup>1</sup> Data suggest that there may be extensive unmet needs among the children who were most affected by the New York attacks.<sup>2</sup> Studies also show that among inner city children, prior exposure to violence increases the risk of post-traumatic stress reactions that may be associated with impaired cognitive functioning. Vulnerable populations, who may be more susceptible to the emotional and behavioral consequences of a disaster, include children,<sup>3</sup> those with pre-existing psychological problems,<sup>4,5</sup> and those with prior exposure to violence or who live in poor, violent, and underserved areas.<sup>6</sup> Psychological disaster preparedness may mediate the adverse psychological impact of traumatic events and may be promoted by: (1) opportunities to master experiences; (2) validation; (3) support; (4) problem-solving skills; and (5) modeling, based on cognitive behavioral therapy.

Although most children appear to be very resilient, research indicates that children can develop psychiatric disorders after disasters and terror events.<sup>7</sup> In order to reach those affected by terrorism and who are likely to suffer long-term effects of a disaster, it is essential to enter various settings including schools.<sup>8</sup> As part of their post-11 September 2001 mental health program, the Children's Health Fund and Columbia University's Mailman School of Public Health's National Center of Disaster Preparedness–The Resiliency Program designed a 12-session curriculum for fourth-grade school children. The curriculum covers affective communication, coping, problem-solving, self-esteem, and interpersonal skills. Several programs have been implemented in the United States with the goals of increasing resilience, coping skills, emotional intelligence, and violence reduction. Each program has had a different focus and strategy, but the findings suggest that school-based programs make a difference in skill acquisition and result in the improvement in many essential areas.<sup>9–11</sup>

This presentation will review the elements of the Emotional Preparedness and Resilience curriculum, its basis in the trauma and resilience literature, and will present a replicable model as the threat of terrorism continues.

#### References:

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| 4. Kessler, <i>et al</i> , 1999.     | 10. Saltzman, <i>et al</i> , 2001.  |
| 5. North, <i>et al</i> , 1999.       | 11. Greenberg, <i>et al</i> , 1995. |
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**Keywords:** 11 September 2001; children; coping strategies; disaster; emotional; preparedness; programs; resilience

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### Institutions: Victims of Disasters?

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**Introduction:** Workers in relief organizations identify themselves with the problems experienced by the victims and there are several problems that may emerge within the organizations. Thus, organizations without proper training also can become victims of disasters.

**Methods:** The methods included direct observation of human behaviors in relief operation and training activities, interviews, and test administration to relief workers.

These methods were implemented and tested within the context of the author's participation in teams of prevention and response of disasters and catastrophes in Argentina during the last 25 years, such as the support provided by the American Medical Informatics Association (AMIA) to the victims of the terrorists attacks, floods, etc.

**Discussion:** The complex situations caused by disasters must be addressed. Therefore, it is necessary to assume that the provision of psychological support is unavoidable. There are several symptoms that may emerge within the relief organizations. A lack of foresight, discrimination, and miscommunication between the relief workers and victims prevent workers from solving many problems. Each catastrophe is a challenge to the capacity of an organization to provide an efficient response to the unexpected.

Everyone is vulnerable, which is why it is necessary to standardize support procedures at both the individual and institutional levels and to determine the priorities in the area of health: (1) reduce vulnerability; (2) foster resilience; and (3) avoid the development of burn-out.

**Conclusions:** Standardizing crisis management and availability of human resources will help to manage emotions caused by a traumatic event, and diminish the impact in communities, organizations, victims, communicators, and those working in relief activities.

Different measures are suggested as ways that could improve the organizational capacity to respond to disasters and catastrophes and avoid becoming victims: (1) foster resilience according to each particular culture; (2) consider effective strategies for states of emergency; (3) draft a psychosocial risk map; (4) preserve the continuity of training activities; (5) assure the continuity of actions (iatrogenia); and (6) develop strategies to prevent interpersonal conflicts.

**Keywords:** culture; disasters; psychosocial support; relief; response

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### Effect of Autogenic Training on Cardiac Autonomic Nervous Activity in High Risk Ambulance Personnel for Post-traumatic Stress Disorder

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**Objective:** The effect of autogenic training (AT) on cardiac autonomic nervous activity in high risk ambulance personnel for post-traumatic stress disorder (PTSD) with use of the Impact of Event Scale Revised (IES-R) questionnaire and indexes of heart rate variability (HRV) was examined.

**Methods:** A total of 22 male ambulance personnel, who were divided into a PTSD high-risk (HR) group (n = 10) and control group (n = 12) were studied. The personnel underwent AT twice or three times a week for two months.

**Results:** The HR group showed a significantly higher cardiac sympathetic nervous activity and a significantly lower cardiac parasympathetic nervous activity than did the control group at baseline. The AT significantly decreased cardiac sympathetic nervous activity, and significantly increased cardiac parasympathetic nervous activity in both groups. These changes were accompanied by a significant decrease in the total scores of the IES-R.

**Conclusion:** The use of AT is effective for ameliorating the disturbance of cardiac autonomic nervous activity and psychological issues secondary to PTSD.

**Keywords:** ambulance personnel; autogenic training (AT); post-traumatic stress disorder (PTSD)

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### Recommendations of the United Kingdom (UK) National Institute for Clinical Excellence's Guidelines on Post-Traumatic Stress Disorder

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