

bility and mortality relating to road traffic crashes (RTCs), which has assumed the status of a disaster. The young are not spared. Students in tertiary institutions of learning fall within the high-risk group of inter-city travelers. They traverse the length and breadth of the nation in search of academic pursuits. Undergraduates in tertiary institutions of learning play an important role in ameliorating occurrence of RTCs through organized, student activities within and outside their campuses. Having been equipped with appropriate information on the prevention of RTCs, they could form safety clubs, organize workshops or seminars, and educate inter-city and intra-campus drivers and commuters as well as motorbike “Okada” riders on the importance of highway signs and codes, etc. Additionally, they could conduct rescue drills in preparedness for mass-casualty incidents. The many ways in which University/Polytechnic students can be useful in the reduction of RTCs are addressed.

Keywords: education; Nigeria; preparedness; road traffic crashes (RTCs); safety; students

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(5) Quality Improvement of the Cardiopulmonary-Cerebral Resuscitation Process Based on Standards in the Medical Emergency Ward of Nemazee Hospital in Shiraz, Iran—2005

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Introduction: This interventional study was performed to determine and improve the quality of the Cardiopulmonary-Cerebral Resuscitation (CPCR) process according to standards in the Medical Emergency Ward of Nemazi Hospital in Shiraz, Iran.

Methods: One hundred twenty CPCR processes were observed and evaluated using three checklists that were designed according to standards. The first checklist was designed to evaluate the standard of essential equipment that was used for the performance of CPCR. The second checklist was designed to collect demographic data and evaluate the process of CPCR activities (intubations, chest compressions, electroshock, drug administration, and insertion of intravenous lines) according to “golden hour” standards. The third checklist was designed to evaluate the documentation of the process. In addition, to evaluate knowledge of the personnel about the CPCR process standards, a pre-test was administered to personnel two months before the intervention and a post-test was administered two months after the intervention.

Results: An analysis of the data and the comparisons of the two test periods indicates that the standard use of equipment and the knowledge of personnel significantly increased after the intervention. Also, the standard use of sodium bicarbonate according to golden hour standards was statistically significant. The speed of CPCR Team attendance at the patient’s bedside procedures was increased statistically. The survival rate following the performance of CPCR had no change after the interventions,

but there was a statistically significant increase of survival rates during morning shifts versus evening and night shifts.

Conclusion: Continuous evaluation and education can improve the quality of the CPCR process.

Keywords: Cardiopulmonary Cerebral Resuscitation (CPCR); golden hour; hospital procedures; hospital standards; survival rates
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(6) Images of International Health and Nursing in Japanese College Students

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Introduction: This study examined the concept of “international health” in college students in Japan.

Methods: Subjects were 96 nursing students, 41 physical therapist and occupational therapist students, and 91 other faculty and students who attended the lecture, “International Health” between April 2005 and September 2006. A self-administered questionnaire was distributed to the students to collect the data. The completion rate was 100%.

Results: Ninety-nine percent of the nursing students, 97.6% of the paramedical students, and 93.4% of the other faculty and students answered “hygiene in developing countries” as their perceived image of international health. About 92% of nursing students, 90.2% of paramedical students, and 71.1% of other faculty and students group indicated that they want to participate in disaster relief medical operations.

Conclusion: Nursing and paramedical students are interested in studying international health and disaster medicine. International health education is considered important.

Keywords: college students; developing countries; international health; Japan; nursing students; paramedics

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(7) Simulation Training

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Introduction: The aim of this study was to evaluate the Emergency Medical Care performance when a simulation of a major event that produced multiple victims was performed.

Methods: The prehospital Emergency Medical Services (EMS) received a call for 10 victims in a railway incident at the Oudhna Railway Station (about 19 km from SAMU location) about 25 minutes after the crash. No precise description of the victims’ injuries was indicated. Three ambulances were dispatched within three minutes, as well as a rapid intervention vehicle with two physicians (an observer and a medical care director). Information about the crash was transmitted to the emergency unit of the Public Health Ministry and to all of the emergency services around the site of the event. Upon arrival to the site, the medical care director designated a Chief for the Advanced Medical Post (AMP) which was placed about 300 meters from the area in which the event occurred. All

victims were examined in the AMP (three were considered as an “absolute” emergency, five as a “relative” emergency, and two as a “psychiatric” emergency). All victims were transferred to hospital emergency services.

Results: The debriefing after this simulation identified some dysfunctions: (1) this exercise simulation was not well-prepared for all partners; (2) the presence of security personnel is essential for securing the accident area and all area maneuverings; (3) there is an absence of emergency plan preparation for a massive influx of victims in some hospitals.

Conclusion: Interactivity, problem solving, decision-making, immediate evaluation, and feedback are key elements to be used in simulation training. The responses of the pre-hospital EMS were mainly acceptable.

Keywords: emergency medical services; police; railway accident; simulation; victims

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(8) Education and Training of Ambulance Personnel in the Rural Areas of Sweden, Scotland, and Iceland

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Introduction: Ambulance personnel frequently deliver initial care to patients with critical illnesses or severe injuries. Therefore, it is vital to have highly trained ambulance personnel in order to provide optimal services. The FSA University Hospital in Iceland, the Emergency and Disaster Medical Centre in Sweden, and the National Health Service-Western Isles in Scotland received a grant from the INTERREG III Northern Periphery Programme to work on the project, “Ambulance Transport and Services in the Rural Areas”. An overview of the current status of the training of ambulance staff in the participating regions and some thoughts about future development will be presented.

Methods: Members of the working groups for each partner reviewed the current status of education of prehospital staff in their region. This included a web-based survey of attitudes and expectations of prehospital personnel concerning their education and training.

Results: There were significant differences between the three areas concerning the training of prehospital responders.

Conclusions: Further research is needed to define optimal training and composition of ambulance crews in order to improve patient outcomes and the utilization of resources in sparsely populated areas. This collaboration should foster improvements in the provision of relevant education in rural areas, and should have an impact on the quality of service.

Keywords: ambulance personnel; education; prehospital; rural areas; training

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(9) Continuing Medical Education in Disaster Medicine

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Introduction: Since 1988 in Belgium, education in disaster medicine usually has meant delivering basic and sporadic information specifically for doctors, nurses, and/or paramedics. Beyond these programs, it has been difficult to provide continuing education initiatives. Such an educational program for disaster medicine recently has been implemented.

Method: One month before the formation of the program, the student (a doctor, nurse, or paramedic) received a book with material that encompassed basic disaster management and introduced more in-depth concepts. During the two-day program, the students performed several practical exercises in groups of eight. Each group was tutored by two or three instructors. The exercises concerned: (1) on-site organization of a triage and care zone; (2) medical dispatch of the casualties; (3) media training; and (4) telecommunications. Moreover, the students were confronted with three table-top disaster exercises in urban, industrial, and countryside environments. They used magnets, figurine vehicles, characters, and other mobile structures on the map to illustrate their tactical approach under the control of the instructors. In last sequence, the students became actors in a life-like disaster exercise with the participation of the fire brigade, civil security, army, police, and media. More than 10 instructors monitored the sequence for 24 participants. The exercise was repeated twice, each time for a different group of participants.

Results: The two-day course allowed 48 people to be trained in an academic setting in cooperating with rescue facilities.

Keywords: Belgium; disaster medicine; education; educational programs; paramedics

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(10) The Mass-Casualty Drill at the National University Hospital: Simulating the Madrid Bombing Scenario in Singapore

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Singapore has an extensive public transport railway system that is operated by the Mass Rapid Transit (MRT). Using the experiences from the multiple-site, terrorist attacks in Madrid on 11 March 2004 in which explosives were placed in four commuter trains injuring >2,000 persons and resulting in 191 deaths, Singapore conducted an island-wide drill on 22 May 2006.

This successful, island-wide drill involved the hospitals, police force, public transport agency, media, Ministry of Health, Ministry of Home Affairs, and Ministry of Communication. By exercising the guidelines and standard operating procedures related to disaster management, the drill helped to identify ways in which all of the involved agencies could improve their disaster plans.

A post-event analysis was conducted, and follow up interventions were identified that should improve the response of hospitals.

Keywords: drills; Madrid Bombing; multiple-site incident; Singapore; transportation system

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