

Disaster Risk Education of Final Year High School Students, Requires a Partnership with Families and Charity Organizations: An International Cross-sectional Survey

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Study/Objective: This multinational study of the terminal year of high school students aims to explore the relationship between engaging in discussions about disasters, as primary outcome, and the entities best situated to deliver Disaster Risk Education (DRE), in addition to a series of independent predictors identified in previous research.

Background: The aim of Disaster Reduction Education (DRE) is to achieve behavioral change. Over the past two decades, educational activities have been developed based on unverified assumptions, while the literature has not identified any significant change toward disaster preparedness at the individual level. Previous research suggests that change is dependent on multiple independent predictors. This study describes the relationship of the perceived entity responsible for disaster education, disaster education per se, sex, and country-specific characteristics with students discussing disasters with friends and family, as a measure of proactive behavioral change in disaster preparedness. School lessons and a national educational program are essential, but it's less clear which educational and delivery methods are best suited for DRE, which entities are best placed to engage with teenagers, and whether the assumptions that DRE can be learned like any other subject are true.

Methods: A total of 3,829 final year high-school students participated in an international, multi-center prospective, cross-sectional study using a validated questionnaire. Nine countries with different levels of disaster exposure, risk, and economic development were surveyed. Regression analyses examined the relationship between the likelihood of discussing disasters with friends and family and a series of independent variables.

Results: While several independent predictors showed a significant main effect, DRE through school lessons in interaction with Family & Charity organizations had the highest predictive value.

Conclusion: A behavioral change towards disaster preparedness in teenagers requires a synergistic partnership between different entities. DRE providers should engage with the entities with which the teenagers are more likely to collaborate, most and foremost, their families.

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A Brief Structured Educational Curriculum Improves Pediatric Emergency Department Staff's HAZMAT Response Skills

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Study/Objective: To design, implement, and evaluate an educational curriculum for pediatric Emergency Department (ED) staff to improve their skills, knowledge, and comfort in responding to a Hazardous Materials (HAZMAT) event.

Background: ED providers need competency in responding to HAZMAT events to treat contaminated patients, protect responding staff, and ensure the ED remains operational. The optimal strategy to teach HAZMAT response principles, including decontamination, to ED providers and to ensure the retention of these skills is not known.

Methods: This is a prospective cohort study assessing an educational curriculum comprised of didactics, skills stations, a tabletop exercise, and simulation focused on critical aspects of pediatric HAZMAT incident response, with an emphasis on donning Personal Protective Equipment (PPE) and patient decontamination. All ED staff were eligible to participate, and participants were randomly assigned to dyads. The primary outcome was the number of HAZMAT PPE donning steps correctly, completed by each dyad at pre and post-curriculum assessments using a 32-item checklist created by hospital expert consensus. Participants completed a 15-item questionnaire to evaluate their knowledge and confidence regarding HAZMAT skills pre- and post-curriculum. Donning skills were reassessed three months following the intervention.

Results: Eighty-four participants were enrolled and completed the curriculum: 56 physicians, 23 nurses, and four administrative staff. Compared to the pre-period, more steps were correctly completed following the intervention (median of 19 vs. 31; $P < .001$). Additionally, multiple-choice knowledge scores increased (64% vs. 91% correct; $P < .001$). There was also an increase in provider confidence (Likert level 3 vs. 6; $P < .001$). Skill retention for the dyads relative to the baseline was maintained at three months (median 19 vs. 28.5; $P < .05$).

Conclusion: A multi-faceted curriculum improved performance, knowledge, and confidence in HAZMAT skills. HAZMAT education is feasible and effective for pediatric ED staff, and should be incorporated into existing training programs.

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The Pediatric Disaster Mental Health Intervention.

A Guide for Primary Care Providers

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Study/Objective: PDMHI (Pediatric Disaster Mental Health Intervention) was initially developed in response to Superstorm Sandy's impact on children and their families in New York City (NYC). The objective was to develop training for primary care providers in Pediatric Disaster Mental Health care and to subsequently study its impact on the trainees.

Background: The effects of a disaster on a community's mental health can persist after the physical effects of the event