

Abstracts of Oral Presentations-WADEM Congress on Disaster and Emergency Medicine 2019

BEST PAPERS

Addressing Adolescent Mental Health after Disasters: The Critical Role of Chronic Stressors

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Introduction: Prolonged conditions of chronic stress have the potential to cause mental health difficulties and disrupt developmental processes for children and adolescents. Natural disasters disproportionately affect low-resource areas, yet little is known about the interaction between trauma exposure, chronic stressors, and mental health.

Aim: To determine the rates of post-traumatic stress disorder (PTSD), depression and anxiety among adolescents affected by earthquakes in China and Nepal, and examine the specific roles of trauma exposure and chronic stressors across the three mental health outcomes.

Methods: A school-based, cross-sectional study of 4,215 adolescents (53% female, ages 15-19 years) was conducted in disaster-affected areas of southern China and Nepal. Participants completed a series of translated and culturally adapted standardized assessments. Mixed effects logistic regression analyses were conducted for each mental health outcome.

Results: The overall rate of PTSD was 22.7% and was higher among Nepalese participants (China: 19.4% vs. Nepal: 26.8%, $p < 0.001$), but did not differ between genders (China: $p = 0.087$ and Nepal: $p = 0.758$). In both countries, the level of trauma exposure was a significant risk factor for PTSD, depression, and anxiety (China: OR's 1.09-1.18 and Nepal: OR's 1.08-1.13). Chronic stressors significantly improved the model and further contributed to mental health outcomes (China: OR's 1.23-1.26 and Nepal: OR's 1.10-1.23). Multilevel risk and protective factors across all mental health outcomes will be presented.

Discussion: While there are limited opportunities to protect adolescents from disaster exposure, there is significant potential to address the effects of ongoing economic insecurity, domestic violence, and school cessation that are likely to worsen mental health outcomes. Programs that identify chronic stressors for adolescents in disaster-affected settings, and work to address poverty and violence, will have cascading effects for mental health, development, and security.

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August 24th, 2016 Central Italy Earthquake - Validation of "Modified Utstein Template for Hospital Disaster Response Reporting," A New Tool for Reporting Hospital's Reaction to Disasters

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Introduction: After Action Reports analyze events and recommend actions to facilitate preparedness and response to future similar disasters. However, there is no consensus among the templates developed to collect data during disasters and little is known about how to report hospital responses.

Aim: The hypothesis was that the use of a new assessment tool for hospital response to natural disasters facilitates the systematic collection of data and the delivery of a scientific report after the event.

Methods: A data collection tool, focused on hospital response to natural disasters, was created modifying the "Utstein-Style Template for Uniform Data Reporting of Acute Medical Response in Disasters",¹ and tested the reaction of the hospitals involved in the response to the Central Italy earthquake on August 24th, 2016.

Results: Four hospitals were included. The completion rate of the tool was of 97.10%. A total of 613 patients accessed the four emergency departments, most of them in Rieti hospital (178; 29.04%). Three hundred and thirty-six patients were classified as earthquake-related (54.81%), most of which with trauma injuries (260; 77.38%).

Discussion: The new reporting tool proved to be easy to use and allowed to retrospectively reconstruct most (97.10%) of the actions implemented by hospital responders. Details about activation, patient fluxes, times, and actions undertaken were easily reconstructed throughout in-field interviews of hospital