

**Conclusion:** The results suggest that loss-estimation models that do not take behavioral factors into account may overestimate projected casualty numbers. The present study shows the importance of raising public awareness regarding proper behavior prior to and during the event, which can help increase resilience of communities, mitigate risks and losses, and ultimately save lives.

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### Development of a Disaster Mental Health Service Model and Expert Survey

Soon-Joo Wang

Hallym University, Hwaseong/Republic of Korea

**Study/Objective:** The study objective is to understand the adequate development of a disaster mental health service model, and to find out the adequate relationship between disaster mental health services and disaster medical services.

**Background:** A disaster mental health service and organization system were activated after Sewol ferry ship sinking disaster in 2014 in Korea, the vision and planning for continuing development of disaster mental health supporting systems are still inadequate and lacking. So it is required to develop the method of connecting disaster mental health services and disaster medical services.

**Methods:** Researchers made and distributed the questionnaires for experts, including disaster mental health experts and disaster health medical experts. The answers to questionnaires were collected. Additionally, expert interviews were done for searching out the methods of a maturing disaster health medical system, and activating the connection between disaster mental health services and disaster medical services. Delphi analysis and AHP (Analytic Hierarchy Process) were used for questionnaire analysis.

**Results:** According to the questionnaire answers, developing a DPAT (Disaster Psychiatric Assistant Team), increased the number of existing certificates, and regularly, repeated training programs are necessary. The role should be stabilization and counseling in acute stages. The most important part of a multiple professional network was disaster medical experts.

**Conclusion:** According to the experts' opinions, DPAT should be prepared, the number of disaster health supporting personnel should be increased, and regular repeated training should be done for them.

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### Forced Internal Displacement during Colombia's Five Decades of Armed Conflict: Trauma, Loss, and Psychopathology

James M. Shultz

Deep Center, University of Miami Miller School of Medicine, Miami/FL/United States of America

**Study/Objective:** Examine the high prevalence rates of symptom elevations for common mental disorders, by phase of displacement for Internally Displaced Persons (IDPs) in Colombia.

**Background:** Colombia is currently transitioning to post-conflict status, following 52 years of continuous armed conflict and widespread population exposure to violence from multiple sources. This insurgency is one of the world's most prolonged humanitarian emergencies. As officially designated "victims of the armed conflict," Colombia's 6.3 million IDPs have been exposed to trauma and loss throughout all phases of forced migration. The Outreach, Screening, and Intervention for Trauma (OSITA) pilot project used a three-tiered, stepped-care mental health intervention model for women IDPs who reside in Bogotá.

**Methods:** At baseline, the OSITA intervention assessed the study participants for exposures to 12 pre-, 18 peri-, and 13 post-displacement trauma and loss stressors. Using internationally standardized scales, the women were screened for three Common Mental Disorders (CMDs): Major Depressive Disorder (MDD), Generalized Anxiety Disorder (GAD), and Post Traumatic Stress Disorder (PTSD). Participants with symptom elevations were referred to Interpersonal Psychotherapy/Counseling (IPT/IPC).

**Results:** Data analysis examined baseline CMD symptom elevations in relation to exposures for 279 participants. On average, women IDPs endorsed 24 of 43 trauma and loss exposures. At enrollment, 51% had clinically significant symptom elevations for MDD; 41% for GAD; and 39% for PTSD. Fully 63% had at least one elevated scale including 26% who had elevations on all three clinical measures. Furthermore, 25% expressed thought or intention to self-harm ("suicidal risk"). Preliminary analysis of intervention effectiveness is underway and appear to demonstrate sharp declines in symptom levels.

**Conclusion:** In this highly-traumatized population, exposures to violence, armed conflict, and forced migration were universally experienced and strongly related to high prevalence rates of psychopathology. IPT/IPC results suggest that this intervention is effective and efficacious for this population.

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### Disaster Management and Farm Family Mental Health: The BSE Crisis as a Case Study

Wilfreda E. Thurston<sup>1</sup>, Scott B. Patten<sup>1</sup>, Keri Lynn Williams<sup>1</sup>, Carol Amaratunga<sup>2</sup>

1. Department Of Community Health Sciences, University of Calgary, Calgary/AB/Canada
2. Department Of Epidemiology and Community Medicine, University of Ottawa, Ottawa/AB/Canada

**Study/Objective:** To examine the evidence of depression among farmers four years after the bovine spongiform encephalopathy (BSE) disaster in Canada and report on implications for future disaster management strategies.

**Background:** As we approach the 14th anniversary of the 2003 BSE outbreak, evidence regarding its implications on the health of farmers is lacking. With disasters often linked to poor mental health, the BSE outbreak can be conceptualized as a disaster in slow motion. Systemic factors impacting farmer mental health are different from those affecting their non-farming rural neighbors. Therefore, disaster management strategies must

respond to the unique pace and culturally distinct factors influencing this disaster.

**Methods:** A non-probability sample of 273 farmers was identified and surveyed in 2007. The survey included standardized assessments of health status: the Brief Patient Health Questionnaire (Brief PHQ), the Short Form (SF)-36 Health Survey, the Psychological Stress Measure, and the Medical Outcomes Study (MOS) Social Support Survey.

**Results:** Sixty (23.3%, 95% CI 18.1 – 28.4) of the 258 respondents who provided Brief PHQ ratings exceeded the traditional cut-point of 10+ on the scale indicating presence of depression. As many men as women reported depression. An inverse relationship between financial comfort scores and depression was highly significant. Depression was significantly related to poor health status and to a decline in health in the last year. In linear regression, poor financial comfort, poor health status, and a decline in health in the last year were related to higher rates of depression even when age and sex were controlled.

**Conclusion:** The results support the contention that a major disaster was created for farmers by the BSE outbreak and that it had long-term mental health consequences. These results also highlight the need for disaster management building on resilience and tailored to the unique needs of this population.

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disasters have been well recorded by local clinics, a lack of evidence remains surrounding the psychological impacts of disasters on first responders and health care professionals in Myanmar.

**Methods:** An epidemiological study was conducted in July 2016 using a written survey in the local Burmese Language with 119 items that assessed demographics, type of disaster response, and psychological status. A total of 234 participants, 48 (21%) health care professionals, 45 (19%) firefighters, and 141 (60%) disaster volunteers, completed the survey. 160 were male, 73 were female, and the average age was 33 years. The data were organized using Excel and analyzed using SPSS and the Depression, Anxiety, and Stress Scale.

**Results:** The psychological health of first responders in Magway was determined as follows: no depression (18%), no anxiety (19%), no stress (48%), mild depression (10%), mild anxiety (4%), mild stress (15%), moderate depression (15%), moderate anxiety (16%), moderate stress (16%), severe depression (22%), severe anxiety (14%), severe stress (16%), extremely severe depression (29%), extremely severe anxiety (48%), and extremely severe stress (5%).

**Conclusion:** The psychological health status of disaster responders in Magway, Myanmar include high incidences of depression, anxiety, and stress. Further studies are needed to explore the causation and potential interventions to improve the psychological well being of disaster responders in Myanmar.

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### Understanding the Psychological Impacts of Disasters on First Responders and Health Care Professionals in Magway, Myanmar

Kristin Ringstad<sup>1</sup>, Cho Cho San<sup>2</sup>, Marlar Than<sup>3</sup>, Thinzar Win<sup>3</sup>, Khin Thein Oo<sup>4</sup>, Kyi Khaing<sup>4</sup>, Thinn Thinn Aye<sup>5</sup>, Aye Aye Than<sup>6</sup>, Htay Htay Sein<sup>6</sup>, Khin Mar Cho<sup>7</sup>, Hnin Khing Aye<sup>8</sup>, Heidi West<sup>1</sup>, Maja Milkowska<sup>1</sup>, Lizeth Galarza<sup>1</sup>, Sue Anne Bell<sup>9</sup>, Tomoyuki Shibata<sup>1</sup>

1. Global Environmental Health LAB, Brooklyn/NY/United States of America
2. Psychology, Yadanabon University, Mandalay/Myanmar
3. Economics, Yadanabon University, Mandalay/Myanmar
4. Geography, Yadanabon University, Mandalay/Myanmar
5. International Relations, Yadanabon University, Mandalay/Myanmar
6. Zoology, Magway University, Magway/Myanmar
7. Geography, Magway University, Magway/Myanmar
8. Geography, Magwe University, Magwe/Myanmar
9. School Of Nursing, University of Michigan, Anne Arbor/MI/United States of America

**Study/Objective:** To determine the psychological impacts of disasters on first responders and health care professionals in Magway, Myanmar.

**Background:** According to the UN Risk Model, Myanmar ranks as the “most at-risk” country for natural disasters. Past events, including Cyclone Komen of 2015, have resulted in progress in disaster management, processes, and law. They have also resulted in recommendations, including strengthening coordination, engaging in disaster response drills, and enhancing communication. While the number of victims and survivors of

### Enhancing Community Resilience during Emergencies by Building Organizational Resilience in Routine Times

Hadas Egozi Farkash<sup>1</sup>, Odeya Cohen<sup>1</sup>, Mooli Labad<sup>2</sup>, Limor Limor Aharonson-Daniel<sup>1</sup>

1. Department Of Emergency Medicine; Prepared Center For Emergency Response Research, Ben Gurion University of the Negev, Beer Sheva/Israel
2. Department Of Psychology, Tel-Hai College, Galil-Elyon/Israel

**Study/Objective:** To examine the influence of support groups utilizing an integrative model of coping and resiliency (BASIC-PH) on the resilience of senior decision makers. To help the participants develop coping mechanisms for daily stressors and extreme situations, in order to enhance their personal and organizational resilience.

**Background:** The impact of resilient organizations on community resilience during emergencies has been established. Organizations provide social, occupational and economic frameworks for community members. Senior decision makers play an essential role in society while being exposed to extreme pressure, loneliness and conflicts. Management of their day-to-day challenges and extreme scenarios can benefit from improving their coping strategies.

**Methods:** A program was devised to strengthen the preparedness of the participants by developing and enhancing their stress coping skills. The BASIC PH resilience model, which was developed in Israel and has been in use for 35 years in various types of organizations, was applied to four support groups of senior decision makers routinely experiencing high