Abstracts of Poster Presentations-22nd Congress on Disaster and Emergency Medicine 2023

POSTER PRESENTATIONS

Effects of Self-Affirmation on Mental Status During the Prolonged COVID-19 Pandemic

Shuji Seto PhD[1], Junko Okuyama MD, PhD[2], Yu Fukuda PhD[3], Kiyoshi Ito MD, PhD[1], Shin-Ichi Izumi MD, PhD[2], Fumihiko Imamura PhD[1]

1. International Research Institute of Disaster Science, Tohoku University, Sendai, Japan
2. Tohoku University Hospital, Sendai, Japan
3. Notre Dame Seishin University, Okayama, Japan

Introduction: Self-affirmation is known to buffer the development of anxiety symptoms into depressive symptoms, and a study during the early days of the COVID-19 pandemic revealed a role for this self-affirmation. In Japan, the COVID-19 pandemic has occurred repeatedly, and at this point (November 16, 2022), prior to an eighth wave. The possibility of ameliorating the psychological effects of this prolonged COVID-19 pandemic through efficient interventions targeting self-affirmation will be examined.

Method: Study dates: June 25, 2020; September 25, 2020; February 10, 2021; November 24, 2021; February 7, 2022; August 31, 2022

Survey participants: Registered monitors of the research company (Neo Marketing Co., Ltd.) Each 1,000 respondents

Questionnaire:

1) Attributes: gender, age, region, number of family members
2) DASS-21 (Depression, Anxiety, Stress Scale-21)
3) LSNS-6 (the Lubben Social Network Scale-6)
4) Self-affirmation

CIPS (Clance Impostor Phenomenon Scale)

Rosenberg Self-Esteem Scale (Japanese version)

The self-affirmation scale (CIPS; Rosenberg Self-Esteem Scale) was measured from the 4th to the 6th survey.

Contribution of each factor to depressive symptoms:

The DASS-21 Depressive Symptom Scores from the 4th through 6th surveys were examined using Prediction One with the DASS-21 Anxiety Symptom Score, DASS-21 Stress Score, Connections Score, Rosenberg, and CIPS score as factors to determine their contribution.

Results: At the time of the second survey (September 25, 2020), DASS-21 scores peaked and then declined. CIPS and Rosenberg Self-Esteem Scale scores showed no change from the 4th to the 6th session. The result of contribution of each factor to depressive symptoms by Prediction One showed anxiety symptoms contributed the most to depressive symptoms.

Conclusion: A model in which self-affirmation prevents anxiety symptoms from progressing to depressive symptoms is reasonable until the 7th wave of the COVID-19 pandemic in Japan.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s123
doi:10.1017/S1049023X23003266

Risk Mapping of Coastal Cities that Sinking Faster than Sea-Level Rise by 2050: The Case of Jakarta and Semarang

Atha Pradana BSPH[1], Ying Yew RN, MPH, PhD[1], Christiana Demetriou MPH, PhD[2], Harun Prayitno PhD, Prof[3], Rafael Delgado MD, PhD[1], Pedro González MD, PhD[1], Ratnasari Dyah Utami MSc[3]

1. Unit for Research in Emergency and Disaster, Faculty of Medicine, University of Oviedo, Oviedo, Spain
2. Department of Primary Care and Population Health, University of Nicosia Medical School, Nicosia, Cyprus
3. Faculty of Teacher Training and Education, Muhammadiyah University of Surakarta, Surakarta, Indonesia

Introduction: Coastal area cities Jakarta and Semarang in Indonesia portray higher hazard that links to an annual sinking rate of up to 20cm. Four main factors have been determined to contribute: groundwater extraction, sea-level rise (SLR), land subsidence, and coastal floods. It accounts for people living in those high-risk regions to prevent the exacerbating situation.

Method: This study's main objective is to generate risk mapping in Jakarta and Semarang using Geographic Information System (GIS) from three open-source websites: Surging Seas, OpenStreetMap (OSM), and Healthsites.io. Through GIS analysis, prediction can be analyzed more accurately with precision when the sinking hits slowly to identify the risks involved.

Results: Satellite data geographical analysis risk mapping done via Surging Seas, OpenStreetMap (OSM), and Healthsites.io showed that by 2050, North, West, part of Central Jakarta and Semarang will sink 5.6 meters below sea level with an annual sinking rate up to 20cm. Critical infrastructure will be affected in Jakarta, including Soekarno-Hatta International Airport and Tanjung Priok Port. Similarly, in Semarang, the Jenderal Ahmad Yani International Airport, Tanjung Mas Port, and Terboyo Bus Station are affected as well. Consequently, it will situate 13 million at both coastal cities as the worst impacted, categorized by the World Bank data, updated Sept 2022 as Urban Poverty, the population living at 2.15 US Dollar a day poverty line. Those living below the poverty line are also deprived of education and access to

infrastructure, mainly electricity, water and sanitation hygiene indicators measured by the World Bank 2021 and 2022, Multidimensional Poverty Measure.
Conclusion: As a conclusion, GIS mapping of Jakarta and Semarang by 2050 using Surging Seas, OpenStreetMap, and Healthsites.io showed a high risk of sinking, especially in the northern areas of both cities, with the mapping done as of April 2022.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s123–s124
doi:10.1017/S1049023X23003278

Current Status of the Disaster Health, Medical, and Welfare Coordination in Japan

Kayako Chishima MPH, Kouki Akahoshi MD, Yoshiki Toyokuni PhD, Hisayoshi Kondo MD, PhD, Yuichi Koido MD, PhD
National Hospital Organization Headquarters Japan DMAT Secretariat, Tachikawa, Japan

Introduction: Non-coordinated support during disasters has negative effects on affected communities and people. From the 2004 Indian Ocean Tsunami, the United Nations introduced a cluster approach to avoid gaps and duplication of aid. Japan's disaster coordination of support for health and medical care was organized after the 2017 Kumamoto earthquake. The Ministry of Health, Labour and Welfare (MHLW) announced and issued the notice that the prefectures need to establish a system related to health and medical activities in the event of a large-scale disaster. In July 2022, welfare content was added. This study investigated the current status of health sector organizational coordination among health, medical, and welfare responders during 2022 the Large-Scale Earthquake National Exercise (LSENE).
Method: The 2022 LSENE was conducted on October 1, 2022 with participation from the Disaster Medical Assistant Team (DMAT) and responders from each prefecture's health and welfare divisions and organizations. Each responder's exercise log sheet and the exercise controller's evaluation were reviewed.
Results: Even though there was a notice from the MHLW, organized coordination was conducted only by several medical and health teams. DMAT is the only team with a system to dispatch teams from non-affected prefectures and coordinate well to allocate teams. Some other health and welfare organizations did not have a dispatching system. They had difficulty sending teams to affected areas, especially due to a lack of a systematic response system, training, coordination headquarters, and information sharing. It was suggested that information sharing and coordination among responders is necessary, although information gathering and request judgments related to dispatch coordination are different for each organization.
Conclusion: In order to smoothly coordinate support teams for health, medical, and welfare in the event of a disaster, it is necessary not only to improve the coordination headquarters for health, medical, and welfare but also to verify its operation through training.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s124
doi:10.1017/S1049023X2300328X

All the Sickly People, Where Do They All Come From? An OLD Problem (Off Load Delay) Rising Ambulance Presentations to an Irish Emergency Department

Phillip Jordaan[1], Marco Smit[1], Robin Andrews[1], Phillip Jordaan[1], Keith Kennedy[1], Ria Abraham[1], Brendan Orsmond[1], Rochelle Jansen van Rensburg[1], Fahd Fayyaz[2], Yuni Neduchelyn[1], Andrea van der Vegte[1,3], Ashleigh Dowle[1], Darshini Vythilingam[1], Bryce Wickham[1], Thomas Kelly[1], Michael Molloy[1,4,5]
1. Wexford General Hospital, Wexford, Ireland
2. University Hospital Wales, Cardiff, United Kingdom
3. University of South Wales, Caerleon, United Kingdom
4. School of Medicine, UCD, Dublin, Ireland
5. Beth Israel Deaconess Medical Center Fellowship in Disaster Medicine, Boston, USA

Introduction: Demand for prehospital emergency services has been increasing worldwide. Significant challenges exist in meeting response times in rural environments when faced with surges in demand related to weather events or sustained demand surge such as the pandemic environment. Significant pressure also exists in the hospital environment receiving such large volumes of patients with short duration handovers to allow prehospital assets return to their primary roles. The aim of this study is to determine trends for ambulance presentations in a rural emergency department over seven years with absolute numbers and percentage of overall attendances.
Method: A retrospective analysis of anonymized electronic registration data on the iPMS system from initiation in 2014 to 2022 including total registration numbers, presentation by ambulance, and handover times. Excel is used to record and examine data.
Results: ED attendances rose from 29,236 in 2014 to 43,184 in 2021 with total ambulance presentations ranging from 4,859 in 2014 (16.62% of attendances), maxing in 2019 at 10,326 out of total attendances of 42,637 (24.22% of attendances).Lowest monthly ambulance presentations occurred in April 2014 (441 or 15.82% of 2788 attendances) and maximal monthly presentations was 1,023 in May 2022 (23.38% of 4376 attendances). Lowest percentage of attendances arriving by ambulance occurred in May 2014 with 14.97% (468) out of 3,127 ED presentations. Highest percentage of attendances arriving by ambulance occurred in January 2021 with 33.67% (875) of 2,599 ED presentations which was during the lockdown phase of COVID in Ireland.
Conclusion: Overall total numbers of patients arriving by ambulance has been steadily increasing for years but numbers (and percentages) dramatically increased during COVID and this has been sustained in the POST Lockdown pandemic