Aim: To develop a new triage method to prioritize patients arriving at the ER.

Methods: Patients aged ≥13 years who arrived at the ER of Yodogawa Christian Hospital without being transported by ambulance between January 2016 and October 2018 were assessed. We analyzed correlations between the items included in the triage sheet and admission. We calculated risk ratios (RRs) of the items that were significantly related to admission. The RR of an item was considered its score, and the triage score was calculated by summing the individual RR scores for each patient. We performed receiver operating characteristic (ROC) analysis of admission and triage scores.

Results: Among 20992 patients, 2030 patients (9.7%) were admitted to the hospital. The triage scores of all the patients ranged from 26.5 to 62.3. According to the ROC analysis, the area under the curve was 0.791 and the optimal cutoff value for the triage score was 32.7 (sensitivity: 0.74, specificity: 0.70).

Discussion: Since this research was based on data from a Japanese secondary level emergency hospital in an urban area, our triage method can be adapted to the many ERs in Japan that share a similar background. The method used to develop this triage method can also be used to develop triage methods for ERs with different backgrounds.

Development of a Tool Measuring Nurses' Competence for Disaster Response

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Introduction: Disasters are situations of complexity and unpredictability that require the performance of teams from various instances with preparation and qualification to assist the victims, recover the environment, and restore living conditions. Health services are essential in the response to a disaster, and nurses all over the world play a significant role in these disasters.

Aim: To develop a valid and reliable scale to identify nursing competencies in disasters.

Methods: Competencies were selected from those related to the framework developed by the International Council of Nurses. A methodological study was developed in two stages: I) validity of content and appearance verification and II) verification of applicability and reliability with test-retest. The participants of stage I were eight specialists in emergencies and disasters in Brazil. In stage II, 326 nurses from the Emergency Mobile Assistance Service in Southern Brazil participated. Data analysis utilized the Content Validity Index and Interest Reliability Index. Psychometric properties of the instrument were measured with Cronbach's alpha coefficient; applicability and test-retest reliability with the use of the t-test and intraclass correlation coefficient and factorial validity.

Results: Forty-one competencies of 51 were organized in three domains according to Factor Analysis. Cronbach's alpha values showed good internal consistency. There was no significant difference between the test and retest scores. The intraclass correlation coefficient values were adequate. The instrument showed reproducibility and adequate applicability.

Discussion: This tool will assess nurses' competencies for disaster response and provide evidence for the development of educational policies in disasters, creating a reliable and prepared workforce to respond more effectively during a disaster.

Development of an Active Learning Program for a Community Utilizing a Scenario Participating as Simulated Rescuers and Sufferers in an Earthquake Prone Area of Japan

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Introduction: Major earthquakes with a magnitude of 8-9 are anticipated to occur in the next 30 years at a 60 percent chance on the southern coast of Japan. Since the most part of our Prefecture is likely to be damaged by tsunami and landslides, residents are expected to take a self-reliant approach on the initial several days after the earthquakes and tsunami.

Aim: To improve the resilience of the local communities we have developed and applied an educational program of disaster response.

Methods: An active learning program was designed on roles of rescuers and sufferers, and conducted two-hour sessions for high school students using a scenario in which they encountered an earthquake during a field trip. Half of the participants were assigned to play students on a field trip and asked to discuss options as a small group to survive and secure their safety in an isolated situation after an earthquake. They exchanged ideas to stay alive, cooperate with local residents and request disaster assistance using very short radio messages to the appropriate counterpart. The other half of the participants were assigned to be school administrations and asked to estimate the situation of sufferers. Their task as a small group was to organize assistance based on the best assumption from the limited information of the isolated students and local villagers.

Results: After the sessions, the participants expressed their discovery in the discrepancy of situational recognition between the two groups and they learned about assumption-based planning as well as good information sharing.

Discussion: Through this program, the participants experienced simulated situations and learned perspectives from both sides; providing relief as rescuers and receiving aid as sufferers. The participants were motivated to share and utilize their knowledge and skills to make their community resilient to disasters.

Development of an E-Learning Platform For EMTs In Ghana

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