

### Advanced Simulation in Disaster Preparedness and Relief: The Gold Standard for Soft Skills Training

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**Study/Objective:** To explore and describe the gold standards, to optimize soft skills training by full-scale high-fidelity simulation. To identify which soft skills are less powered by rescue teams.

**Background:** Safety management in organizations has seen good developments. Early safety issues focused primarily on environment and equipment (the technology) matters, while later practices also considered human aspects (human factors) and the overall management of the organization (organizational factors). Advanced simulation has been demonstrated to be effective in training people to both technical and non-technical skills.

**Methods:** Teams of rescuers were exposed to full-scale high-fidelity scenarios. All phases of the simulation training process were investigated and graded in order to identify the key phases to obtain the learning objectives; Laerdal Sim Man 3 G was the patient simulator used in all scenarios.

**Results:** All phases of simulation are critical to obtaining the learning objectives; failure in providing effective feedback by reflective debriefing has been shown as the main cause of missed learnings and low motivations of participants. Team membership has been shown as the most critical soft skill to practice and retain.

**Conclusion:** Traditionally, rescue team training has been focused on knowledge and technical skills, while soft skills have been often a secondary teaching goal. Well established evidences have been demonstrated that most errors rise from human factors and non-technical skill insufficiency. Soft skills training of both health care professionals and non-health care rescuers must be a priority of all training programs. Full-scale, high-fidelity simulation is the gold standard to practice and retain soft skills.

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### Find Me if You Can! An Interprofessional Search & Rescue Disaster Collaboration among Nurses, Physician Assistants and the Military

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**Study/Objective:** Disaster preparedness is now a public health problem and an increased number of disasters have led to a greater need for trained volunteers during these times. There is a greater need for creation of simulation sites outside of the simulation laboratory. The need to educate nursing students in a non-traditional learning environment is needed to reinforce the best educational practices for our future nursing workforce. Staging a disaster simulation in a "real life setting" was found to generate better student learning outcomes when compared to traditional simulation lab activities.

**Background:** In Summer 2013, an Interprofessional Mass Casualty Search and Rescue exercise was conducted with senior baccalaureate nursing and physician assistant students, and the Indiana Air Guard CERF-P medical division. This qualitative pilot exercise was conducted to meet course curriculum requirements for disaster preparedness. The exercise included high fidelity adult and pediatric simulators along with live actors that were moulaged. Special needs victims and non-english speaking victims were used.

**Methods:** A fifteen question Likert-type, pre and post simulation evaluation was administered to participants. The pre evaluation revealed students expected to be overwhelmed, yet have a realistic experience. The post simulation evaluations revealed the exercise was realistic, allowed students to use communication skills to establish collaborative relationships, it provided an opportunity to connect classroom and clinical learning, and students utilized their critical thinking and judgment skills.

**Results:** showed the majority of students would participate in future mock disaster exercises. Lessons learned included the need for additional staff to run the mannequins, revision of the post survey, and greater formalized pre and post briefing. Lessons learned were utilized in future mass casualty simulation exercises.

**Conclusion:** This was an innovative experiential learning opportunity for student practitioners. More disaster response programs are needed for student competency in rural health settings with positive impacts on Quality and Safety Education for Nurses (QSEN) outcomes.

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### Necessity of Disaster Training in Cooperation with Public Health Centers

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**Study/Objective:** This summer, I conducted training in collaboration with DMAT and a public health center, in a large-scale earthquake medical activity training; I will report on this.

**Background:** In Japan, public health centers are established as prefectural governments, government ordinance designated cities, core cities, etc., as public institutions that are central to the maintenance and promotion activities of local residents. There are 510 public health centers nationwide, and since peacetime, it is the core of regional medical care. Even in the Kumamoto earthquake that occurred in April 2016, we will work closely with public health centers in the afflicted area, before the end of activities by the DMAT in the hyperacute phase, and gradually move the work to continue suddenly discontinued support we did not care.

**Methods:** We conducted material procurement drills, focusing on exchanges at all health centers and medical facilities in the prefecture, medical aid and relief adjustment headquarters at each site, and at prefectural office headquarters. We also conducted training on some of the health centers, and conducted an evaluation of an evacuation center.

**Results:** We procured supplies from the health care facilities, bases and prefectural agencies, and requested cooperation from the health centers. In addition, we were able to share the results