

Results: While the overall distribution of ratings was strongly left skewed the sampling distribution was near normally distributed for studies with five or more participants. The average difference between the standard deviation and interquartile range was $-0.26/7$. The overall risk of falsely concluding consensus using the standard deviation as a summary statistic was 7.3% when compared to using the interquartile range. The average difference between mean and median was $-0.20/7$. The risk of falsely ranking the statements by a value of 0.5 or more was near zero for all sample sizes when the mean was compared to the median.

Conclusion: This study suggests that the use of the 1 to 7 linear rating scale in combination with the parametric summary statistics of standard deviation and mean is a valid method to analyze ratings from Delphi studies.

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Mixed Reality—Exploring the Requirements of Realism in the Context of Mass Casualty Incident Training

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Introduction: The occurrence of mass casualty incidents is increasing globally. Training is an essential cornerstone in achieving disaster preparedness, yet studies show that medical first responders perceive their level of readiness to face disaster incidents as inadequate. As real-world disaster training exercises can be characterized as resource-intensive in terms of cost and time, virtual training environments have been highlighted as a potential alternative to mass casualty incident training. In order to increase the preparedness of medical first responders, a deeper understanding of their requirements in the context of disaster training exercises is needed.

Method: Individual, contextual interviews were conducted with a total of 26 medical first responders from four European emergency service organizations: Hellenic Rescue Team (Greece), Summa 112 (Spain), Sanitätspolizei Bern (Switzerland), and Johanniter Österreich (Austria). The interviews were analyzed using qualitative content analysis.

Results: The preliminary results indicate that real-world disaster training exercises have limitations regarding realism. The participants described a need to train in an environment that accurately represents what they might face amidst a real-world incident site. This included the recreation of potential environmental dangers that had to be taken into consideration before approaching the incident site. The participants also highlighted the importance of realistic representations of injuries and reactions from the victims during training. The limited possibilities to provide a realistic training environment that corresponds to

the set requirements lead to the participants feeling less prepared to face a real-world mass casualty incident.

Conclusion: Medical first responders' need for increased realism in real-world disaster training exercises deserves attention. Training solutions that could potentially increase the level of preparedness needs to be taken into consideration. How the degree of realism in Virtual or Mixed Reality based training platforms affects the perception of preparedness among medical first responders warrant further research.

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Developing a HazMat Decontamination Training Program for a Hospital in Singapore for National Emergency Preparedness.

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Introduction: Sengkang General Hospital (SKH) is a part of the national network of hospitals to respond to civil emergencies including hazardous material (Hazmat) incidents in Singapore. The HDS course aims to train our staff on basic knowledge of the effects of hazardous material exposure and the operations of the HDS.

Method: HDS course was planned in three phases:

Phase one aimed to train all DEM personnel so as to have a critical mass of personnel equipped to operate the HDS upon immediate notice. Phase two involves hospital staff from non-emergency departments. Material and simulations for phase two was simplified to focus on the skills and prompt decontamination. Phase three aims to test out capabilities of HDS and review processes through department simulations and hospital.

Results: 155 staff have completed HDS training since 2019, amongst them, 23 as instructors. 67.7% found the demonstrations, skills and practices exceeded expectations. 69% were able to apply skills taught during simulation and overall, 71.2% were able to understand topics covered in the modules.

SKH was at the forefront of battling Covid-19 and resources were tight. We have resumed trainings to complete Phase two. We aim to train more than 35% of manpower in non-emergency departments to achieve higher recall.

Conclusion: Training for national emergencies is challenging. HDS is located right outside the emergency department and has advantages of allowing smooth traffic to decontaminate patients and prompt treatment. However, training can get disrupted with incoming ambulances, patient influx and lack of resources.

SKH aims to be well prepared in handling pandemics and still maintain its capabilities in assisting in national emergencies. There are plans for hospital simulation exercises for all relevant stakeholders and internal and external reviews are required to improve decontamination systems and processes. It is important to continue training hospital personnel to support HDS during crises.

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