Emergency Preparedness: Training Outcome in Hospital Staff
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Introduction: A widely acknowledged aspect of emergency preparedness is hospital-wide staff education. Maintaining interest in hospital emergency preparedness among hospital staff is challenging. A hospital-wide education process involving a robust lecture and hands on donning and doffing sessions followed by periodic disaster drills has been recently undertaken as a quality improvement process.

Method: A prospective pre- and post-test study of 256 hospital staff were given a six-hour training course in comprehensive Hospital Incident Command Systems (HICS), Hazmat (Hazardous Materials), and CBRNE (Chemical, Biological, Radiation, Nuclear, and Explosive) events. The same pre and post-test were given to all participants that contained questions to assess emergency preparedness knowledge.

Results: 256 registrars within seven months (two classes per month) completed training with pre and post-tests. The average class size was 18.3 (range= 14 to 26 registrars). 3 of 256 (1.1 %) registrants achieved the pass mark of 70% in the pre-test survey and 230 (89.8 %) registrars achieved 95% confidence interval) registrars achieved the pass mark of 84%. There was a strong covariation between participation in the collaboration exercises and perceived learning. There was a statistically significant association between participation in the collaboration exercises and perceived learning (r² = 0.793), as well as between perceived learning and utility (r² = 0.811).

Conclusion: This study confirms the feasibility of three level collaboration exercises conducted virtually. Our work also demonstrates that learning depends on collaboration practices and that collaboration exercises before crises can help to build qualities that people can apply in daily life. Collaboration elements exercised in this study contributed to perceived learning. There was a strong covariation between participation in the participants' collaboration exercises and perceived learning and utility. The virtual three-level collaboration exercises were well received by the participants and achieved an acceptable collaboration, learning, and utility score. Although exercises were conducted virtually, they were well received by the participants and achieved a value M = 4.4 CLU score, which opens up new dimensions in collaboration simulation exercises, at least from an organizational perspective, in a world with an increasing number of diseases and public health emergencies.

Impact of Virtual Disaster Collaboration Exercises on Disaster Leadership at Hospitals in Saudi Arabia
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Introduction: This study measured the impact of virtual three-level collaboration (3LC) exercises on participants’ perceived levels of collaboration, learning, and utility (CLU) at hospitals in the southern region of Saudi Arabia. Our 3LC exercise is a tabletop training tool used to facilitate disaster education and document CLU. This model enables the practitioner to acquire new knowledge and promotes active learning.

Method: An English version of the CLU scale, the validated Swedish survey tool, was applied to 100 health-care managers or leaders in various positions at both the operational and tactical levels after conducting the 3LC exercises.

Results: The results show that most participants strongly agreed that the exercises focused on collaboration (r² = 0.767) and that they had acquired new knowledge during the exercises. There was a statistically significant association between participation in the collaboration exercises and perceived learning (r² = 0.793), as well as between perceived learning and utility (r² = 0.811).

Conclusion: This study confirms the feasibility of three level collaboration exercises conducted virtually. Our work also demonstrates that learning depends on collaboration practices and that collaboration exercises before crises can help to build qualities that people can apply in daily life. Collaboration elements exercised in this study contributed to perceived learning. There was a strong covariation between participation in the participants' collaboration exercises and perceived learning and utility. The virtual three-level collaboration exercises were well received by the participants and achieved an acceptable collaboration, learning, and utility score. Although exercises were conducted virtually, they were well received by the participants and achieved a value M = 4.4 CLU score, which opens up new dimensions in collaboration simulation exercises, at least from an organizational perspective, in a world with an increasing number of disasters and public health emergencies.