Teamwork Processes in Immediate Responder Groups With or Without Emergency Response Expertise: Controlled Experimental Simulation Study

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Introduction: Immediate responder groups in disaster response need to self-organize to provide aid before the arrival of the professional response. These groups consist of individuals in proximity to the event and may vary in emergency response expertise from emergency response professionals (ERP) to medical laypeople. While ERP training typically includes some teamwork education, research on ERP expertise on teamwork in immediate responder groups is limited. This study investigates how teamwork processes differ between groups with or without an ERP in a controlled simulated scenario.
Methods: Twenty-eight groups (76 participants) participated in a traffic accident scenario. Participants completed the Team Process Survey afterwards, measuring transitional, action, and intrapersonal processes. Transitional processes include goal setting and planning, action processes involve monitoring goal progress, and intrapersonal processes concern maintaining motivation and handling conflicts. The scenario involved two critically injured people and limited resources. An ERP was present in eight groups. The controlled simulation allowed for the standardization of situational and environmental factors.
Results: A significant difference in transitional processes was found between groups with (M=3.2, SD=0.9) and without ERP (M=2.78, SD=0.6), Welch's $t(31.3) = -2.05$, $p = .05$, with a medium effect size, Cohen's $d = -0.55$. However, no difference was found in the action, Welch's $t(31.8) = -0.51$, $p = .61$, or intrapersonal, Welch's $t(44.9) = 0.45$, $p = .65$, process dimensions.
Conclusion: The presence of emergency response expertise in immediate responder groups can be expected to support transitional team processes by facilitating shared reflection on the groups' goals, strategies, and plans in between periods of individuals' taskwork efforts. However, further training in leadership in line with current best practices in intra-professional teamwork for both ERP and in first aid education for medical laypeople could potentially improve action and intrapersonal team processes in the immediate responder phase of disaster response.

Prehosp. Disaster Med. 2026;41(Suppl. S1):s69
doi:10.1017/S1049023X26103240

MassCas Tabletop Game for Primary Health Care Teams as a Successful Training Tool

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Introduction: Mass Casualty Incidents (MCI) require complex training and response, and local response in the first hours is essential. In many places worldwide, this initial local response is provided by the primary health care (PHC) network. The training method for MCI is complex and costly, and may not be integrated into the PHC network. Our objective is to measure self-perception and the impact of a brief training action through an MCI tabletop exercise carried out with primary care doctors and nurses using the "MassCas" tabletop game, specifically designed for this project.
Methods: Descriptive intervention study of the impact of a two-hour training intervention in the Health Research Institute of the Principality of Asturias with primary care doctors and nurses from the Principality of Asturias. Self-perception using a Likert scale on methodology, knowledge, and skills was analyzed. We also tested knowledge retention with a multiple-choice knowledge test after two months. Strengths and weaknesses of the methodology, as well as attitudes toward mass casualty incidents, were also identified through open questions.
Results: Twenty-seven doctors and nurses participated in the training program. 85% of participants improved their level of knowledge after two months without studying material. Self-perception measured 27 items in 3 dimensions: methodology (Median=9; IQR=2), knowledge (Median=10; IQR=1), and skills (Median=9; IQR=1). All items except one had a median greater than or equal to 9. All items ranked a median 8-10.
Conclusion: Primary care health professionals perceive gamification using the "MassCas" tabletop game for mass casualty incidents as a useful tool in their training in mass casualty incidents and in acquiring specific knowledge and skills in this area.

This study has been partially financed by the Foundation for Biosanitary Research and Innovation of the Principality of Asturias (FINBA), the managing entity of the Health Research Institute of the Principality of Asturias (ISPA).

Prehosp. Disaster Med. 2026;41(Suppl. S1):s69
doi:10.1017/S1049023X26103252

Hospital Triage Tools Used During Disaster Events in Canada Over the Last 40 Years: A Scoping Review

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Introduction: A mass casualty incident (MCI) is a sudden onset event that can generate many patients with the potential to overwhelm healthcare resources. Many Canadian hospitals plan to use disaster-specific triage tools during an MCI, rather than routine procedures, despite a lack of studies. It is not known whether these alternate triage tools have ever been utilized in actual Canadian MCIs. This study sought to discover what triage strategies have been recorded and their frequency of use.
Methods: A scoping review of scientific databases and the grey literature was conducted to find published material regarding the triage strategy employed by the responding hospital(s)

https://doi.org/10.1017/S1049023X26103240 Published online by Cambridge University Press