

## Abstract

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# “That was cool!” Participant Response to a Mass Casualty Incident Virtual Reality Simulator

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## Abstract

**Objective:** To minimize loss of life, mass casualty response requires swift identification, efficient triage categorization, and rapid hemorrhage control. Current training methods remain suboptimal. Our objective was to train first responders to triage a mass casualty incident using Virtual Reality (VR) simulation and obtain their impressions of the training’s quality and effectiveness.

**Methods:** We trained subjects in SALT Triage then had them respond to a terrorist bombing of a subway station using a fully immersive VR simulation. We gathered learner reactions to their VR experience and post-encounter debriefing with a custom electronic survey.

**Results:** Nearly 400 subjects experienced the VR encounter and completed evaluation surveys. Most participants (95%) recommended the experience for other first responders and rated the simulation (95%) and virtual patients (91%) as realistic. Ninety-four percent of participants rated the VR simulator as “excellent” or “good.” We observed no differences between those who owned a personal VR system and those who did not.

**Conclusions:** Our VR simulator ([go.osu.edu/firstresponder](http://go.osu.edu/firstresponder)) is an automated, customizable, fully immersive virtual reality system for training and assessing personnel in the proper response to a mass casualty incident. Participants perceived the encounter as effective for training, regardless of their prior experience with virtual reality.

**Supplementary material.** The supplementary material for this article can be found at <http://doi.org/10.1017/dmp.2024.232>.