E34 The Application of Virtual Reality in Training First Responders in the Proper Handling of the Dead

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Learning Overview: After attending this presentation, attendees will have a clearer understanding of the application of virtual reality as a training tool in the humanitarian forensic domain.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by highlighting: (1) the complexity of Management of the Dead (MotD) training for first responders; and (2) the need and importance of an experience-based, innovative, pragmatic approach of training modules.

The International Committee of the Red Cross (ICRC) has been assisting in humanitarian forensic response globally since the end of the 20th century; the nature of its assistance includes, but is not limited to, the training of first responders in the proper MotD in emergencies. Following disasters (natural or man-made), the role of the first responders in the search and recovery of the dead is crucial. Their swift, professional, and accurate actions can lead to a higher percentage of positive identifications if the correct information is collected at the early stages and adequately traced. Proper training for the shareholder agencies in the adequate response procedures is therefore essential. The challenges of the MotD training in different countries are extremely diverse, such as language limitations, differences in cultural, religious, and social needs, geographical and timely constrains, financial restrictions, changing jurisdiction of actors, the constant rotation of the acting personnel, etc.

Recently, education technology companies revolutionized teaching when they brought Virtual Reality (VR) technology to the classrooms. A 360-degree view of the content gives a more realistic feel to the trainees, while the interaction with VR content helps them explore the subject in more depth; the technology is not limited to any specific age group of students. In the MotD setting, the VR tool is also proving to be tremendously useful. The module does not require deploying heavy training material (mannequins, body recovery equipment, etc.); after launching the software, the trainees are immediately in the arranged and adjusted simulation. They can examine the environment in order to make decisions on their personal protection equipment necessities prior to going to the field to search for and recover disaster victims. The simulation can be modified regarding the stress situation (e.g., bombing, earthquake, tsunami) and the language can easily be adjusted. During the simulation, the trainer observes the trainee's advancement, as the whole simulation can be viewed on the computer or projected to a big screen; they can stop the process, give immediate feedback and recommendations. Moreover, the trainees can work in teams as other team members can, as well as follow what is happening inside the simulation—they can cooperate as they would on the field. Furthermore, the trainer does not have to be in the same room (or even location, town, or province) as the trainees; they can study the training process via computer connection, which is an added value in remote areas.

Applying the VR tool to MotD training does not intend to dismiss traditional training. On the contrary, it is intended to complement it. Ultimately, a better response is achievable via training following a disaster situation to avoid a high number of persons who remain unaccounted for and to return the missing to their families.

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