論 文 の 欧 文 概 要

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(Title)

Assessing the Efficacy of Virtual Reality Simulation Training for Emergency Medical Services: Analyzing Knowledge and Skills at an Emergency Medical Technician Training College

(Abstract)

Simulation practice is indispensable for students to play an active role as an EMT. It is difficult for students who lack experience in the emergency scene to visualize the emergency scene. We thought that the use of immersive virtual reality (VR) would be useful for students to visualize the emergency scene.

In the first research project, we examined the educational effectiveness of START using VR for students. We compared the educational usefulness of self-selected role-playing VR and conventional live lectures on the knowledge and skills learned in START education, which is one of the triage methods to be implemented in times of disaster. The usefulness of VR in the skills was revealed. The results of the written test showed no significant difference, but there was no educational difference between VR and live lectures. It is clear that there is no educational difference between VR and live lectures.

In the second research project, we compared the educational effects on knowledge between the remote training using VR videos and the conventional face-to-face training with practical skills for students. The results showed that the group with VR had significantly higher scores on the situation-setting problems, while the group without VR had significantly higher scores on the general problems. It is clear that the use of VR videos is useful for improving the knowledge of situational setting problems.

It is clear that VR is useful for students who cannot imagine emergency situations. In the future, it is important to create more complete VR movies and educational curricula, not only in the field of emergency medicine, but also by referring to research in other fields.