Virtual Reality Indications

Simulation

see Virtual reality simulator.

Treatment

see Virtual Reality Therapy.

The COVID-19 pandemic and mandatory social distancing has brought challenges to anatomy educators who generally need in-person classes. The purpose of a study from the Tulane Center for Clinical Neurosciences, was to share the experience of a distant online lecture on a surgical procedure and related anatomy in a three-dimensional virtual reality workspace and to compare it with reported teaching methods, i.e., an in-person class and a Zoom online class. The lecture was delivered by three authors of this article in a virtual-reality workspace that enables people to meet through VR. The lectures were about combinations of dental surgical procedures and related clinical anatomy. Physically, the attendees could have been located anywhere in the world, so lecturers joined from the USA and the attendees were all from Japan. VR environment and its flexibility enabled attendees to join the lecture actively, helping them to gain an understanding of the surgical procedure and anatomy more efficiently. The use of VR technology with a live communication tool demonstrated in this study has several advantages over previous education methods, although there are still technical issues or disadvantages that need to be addressed. Development of the technology and app/software is required so that more data can be processed at a higher speed. The use of VR technology with a live communication tool could be an alternative teaching method. Its overall advantages are a closer look at the slides/monitor and concurrent observation of the multiple assets in various directions by multiple attendees. These advantages cannot be achieved by any other teaching method without VR assets with the workspace provided by Spatial. Even during the mandatory social distancing due to the COVID-19 pandemic, this could enable us to foster a three-dimensional understanding of surgery and related anatomy. Further study is now needed to evaluate the effectiveness of this newly proposed teaching method by comparing it with traditional in-person and online classes with a live communication tool [1].

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Iwanaga J, Kamura Y, Nishimura Y, Terada S, Kishimoto N, Tanaka T, Tubbs RS. A new option for education in surgical procedures and related clinical anatomy in a virtual reality workspace. Clin Anat. 2021 Jan 27. doi: 10.1002/ca.23724. Epub ahead of print. PMID: 33502787.