



Demonstration of the WHO's Surgical Safety Checklist in 360° Virtual Reality

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INTRODUCTION

The World Health Organization (WHO) has developed the Surgical Safety Checklist to decrease errors and adverse events in surgery and improve patient safety. When the list is used correctly, a significant decrease in morbidity and mortality has been demonstrated. The main challenge is to ensure a strong implementation and a commitment to use the list routinely. To achieve this, all surgical team members need sufficient education. 360° virtual reality (VR) video is a novel technology with great potential for medical education as it enables learners to immerse themselves fully in the situation. This video format is now supported on social media such as YouTube, Vimeo, and Facebook. For this reason, 360° VR videos may be a cost-effective alternative to train health professional learners in the use of the Surgical Safety Checklist.

METHODS

We performed an “in situ” simulation in the operation room demonstrating the three essential steps of an operation. The team performance was recorded with a Vuze 3D 360 Spherical VR Camera, and, for post-editing, Final Cut Pro and Dashwoods 360VR Toolbox Workflow Plugins were used. Finally, the video was distributed through YouTube.com where it can be watched with a smartphone used as a Head-Mounted Display (HMD) to engage trainees with the stereoscopic 360° environment. Alternatively, the video can be viewed as a monoscopic version on desktop computers.

RESULTS

We developed a 360° VR video demonstrating how to use the WHO's Surgical Safety Checklist in the Operating Room that could be accessed by health professional learners on Youtube.



OBJECTIVES

The aim of this project was to develop a low-cost 360° VR video by a team of health care providers demonstrating how to implement the WHO's Surgical Safety Checklist successfully in the Operating Room.



CONCLUSION

It was possible to produce a 360° VR education video about the Surgical Safety Checklist with use of low-cost consumer recording equipment and video editing software. The video is freely distributed through social media and can be watched in a stereoscopic version on a smartphone used as HMD or as a monoscopic version on desktop computers using the following link:

<https://www.youtube.com/watch?v=4hoP4gmqRPU>



360 VR